

# Poster Abstracts

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## ADVANCED PRACTICE

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### P1

#### PARP-INHIBITORS ROLE IN THE TREATMENT OF OVARIAN CANCER

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Women with ovarian cancer used to not have any maintenance options for many years, spending a significant amount of time at an infusion center. PARP-inhibitors can provide new treatment options for women with advanced stage ovarian cancer. They have been shown in multiple clinical trials to increase progression free survival compared to placebo. PARP-inhibitors work especially well for women with a germline or somatic BRCA1 or BRCA2 mutation. This oral medication can increase quality of life for women in the sense of less time at an infusion center and more time doing things they enjoy. PARP-inhibitors are not only used as a treatment option but can also be used in maintenance. The goal of PARP-inhibitors in the maintenance phase is to elongate the time the patient has to undergo IV chemotherapy. Although PARP-inhibitors are administered orally, they do not come without both short term and long term side effects. Each PARP-inhibitor's side effect profile is different so it's important to evaluate the patient's side effects of platinum and taxane treatment before deciding which PARP-inhibitor to prescribe. Due to PARP-inhibitors interfering with DNA, patients are at risk for secondary malignancies which can be devastating. It is important to evaluate which patients are eligible for these PARP-inhibitors to give them an option to increase progression free survival.

### P2

#### HELPING PATIENTS NAVIGATE THE ONCOLOGY WORLD THROUGH THE USE OF PATIENT NAVIGATION

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The Northwell Health Cancer Institute conducted an in-depth analysis in 2021 to determine the effectiveness of keeping patients in the healthcare system from the moment of a positive biopsy to their survivorship. It was shocking to learn that 38% of patients

who were diagnosed with breast cancer in Northwell stopped receiving treatment within the health system. According to additional data and analysis, patients are left to manage their own care in the present healthcare environment. As a result, the Northwell Health Breast Navigation Program was developed to ensure our patients receive the most effective services in a timely manner. We have collaborated with our radiology team to create a navigation pathway to immediately connect patients with a breast nurse navigator upon the delivery of their cancer diagnosis and offer support and guidance throughout their entire journey. The navigator serves as a sole point of contact for the patients and acts as a liaison between the patients' healthcare providers. Our goal is to improve efficiency and reduce the anxiety of patients navigating their own breast cancer care by developing a process that eliminates any barrier or burden on the patient and their caregivers. Early in 2022, our new program was introduced, with the support of two RN navigators and one administrative coordinator. This program has been successful in helping patients access cancer treatment within two to five days of initial diagnosis. In the first six months of the program's inception, 95% of the patients gave it a 5-star rating, and we have increased the percentage of surgical patients who remained with us from diagnosis to consultation from 62% to 91%. Operational and quality improvement analyses were conducted. Time to care delays were identified to be largely caused by oncotype requests and delays in hormone receptor results. As a result, collaborative efforts with the surgical practices ensured that a flag was added to the pathology system to expedite hormone receptors results and that new operational practices were put in place to order the oncotype, if needed, uniformly across the health system. We intend to keep growing this program to develop ancillary routes that will aid in treating the patient as a whole and not just their cancer.

### P3

#### UPSKILLING ONCOLOGY NURSES TO COMPETENCY WITH CAR-T INFUSION AND MANAGEMENT

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The COVID-19 pandemic has forever changed the way we manage transplant patients. With the additional challenge of maintaining safety for transplant patients

while accounting for COVID infections, there was a need to expand bed availability beyond the dedicated HSCT (Hematopoietic Stem Cell Transplant) Unit at New York Presbyterian: Weill-Cornell. Due to HEPA filtration and inability to change rooms to negative pressure, the dedicated HSCT unit, 10 West, is unable to accommodate COVID+ patients. The purpose of this initiative was to increase bed capacity and broaden oncology nurse knowledge by training them in administration and management of CAR-T patients. HSCT nurses identified the Autologous HSCT/Oncology unit, 10 North, as the target for this intervention due to the nurses' baseline transplant knowledge. 10 West nurses noted education gaps among 10 North nurses' knowledge of CAR-T using a 10-question electronic assessment. From January to March 2022, the team planned, coordinated, and executed multiple educational sessions for nurses and ancillary staff which were built on the previous autologous transplant education they had received in 2017. The first educational sessions were performed at multiple morning huddles. These focused on CAR-T management including education about chemotherapy, cell administration, patient monitoring post infusion, and emergencies. More in-depth educational sessions were offered in an hour-long lecture format. After these educational sessions were completed by 100% of the 10 North staff, we identified additional learning gaps and follow-up education was created and dispersed amongst the staff. Follow-up education was provided at regular monthly intervals. Upskilling the 10 North nursing team resulted in the successful administration of 10 CAR-T transplants in 2022. As of September 2022, the CAR-T program at New York Presbyterian has surpassed 2021 total CAR-T administrations, with 37 CAR-T transplants year-to-date.

#### **P4** **THE EFFECTS OF RESIDUAL VOLUME LEFT IN IV TUBING RESULTING IN CHEMOTHERAPY UNDER-DOSING**

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The amount of active drug left in the tubing set after chemotherapy has been administered may be significant. With a traditional tubing set, chemotherapy is in-

fused as primary and a substantial portion of the medication may become retained in the terminal tubing due to pump safety mechanisms that activate when the bag is empty, but the infusion is not yet complete. Gravity infusion of this balance would not be rate controlled and is undesirable as it may lead to infusion related reactions and side effects. The lack of research and inadequate educational resources, have led to misconceptions regarding the benefits of the administration of residual volume. The purpose is to increase awareness and expand nurses' knowledge on the omission of residual volume in IV tubing which may result in chemotherapy underdosing. To overcome these safety and quality concerns, we need to identify whether the amount of residual volume of chemotherapy drug in IV tubing may result in underdosing over the course of chemotherapy IV treatment. Secondary administration sets offer the advantage of bypassing the activation of pump lockout mechanisms, as utilization of the primary bag will ensure that all chemotherapy is infused. Secondary sets are approximately 90 inches shorter than traditional tubing – thus providing much less surface area for chemotherapy to be retained. The overall percentage of medication lost ranged from 2.8% to 33.5%. The least medication loss occurred when medication administered as secondary infusion. The greatest percentage loss was with small volume infusions such as 50-100 ml volumes. The longer the chemotherapy IV tubing, the more residual volume. There is clinical significance of residual volume remaining in the intravenous sets after the total ordered volume has been infused. Oncology nurses should use specific guidelines to minimize residual volume left in IV tubing. Consider flushing through the administration set with a primary solution when administering chemotherapy as a secondary/intermittent infusion. The simpler the IV administration set-up, the less risk for error. Chemotherapy should be connected as secondary IV tubing to the upper port of the primary IV tubing and therefore flushing the line upon completion. The nursing committee should establish standard processes to prevent medication loss due to residual volume left in IV tubing. Consider financial implications of wasting residual volume left in IV tubing.

#### **P5** **TIMING OF ANTIBIOTIC ADMINISTRATION AFTER FIRST FEVER IN BLOOD AND MARROW TRANSPLANT PATIENTS**

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*Oncology Nursing Practice*

Antibiotic administration in a timely manner is vital for blood marrow and transplant (BMT) patients as these patients are highly immunocompromised, with infection and/or sepsis being a potential complication (Finefrock D;Varughese T;Ding J;Sanders A;Hewitt K). The purpose was to improve compliance of antibiotic administration time within the one-hour time frame from fever onset from 10% (January 11th, 2021, to May 12th,2021) to 25% without adversely impacting obtaining blood cultures prior to antibiotic administration by 12/31/21. Our intervention was education role out to clinical staff as well as clinical providers including: the correct orders to be placed, staff completing blood cultures prior to antibiotic administration, and the administration of ordered antibiotic within one hour of fever onset. Our primary measure it to have compliance of antibiotic administration within one hour of fever onset in BMT patients. Data was collected from January 11, 2021, to May 12, 2021, which showed that only 10% of BMT patients were receiving antibiotics within 1 hour of first fever onset. Post data will be collected via chart review and statistical analysis. Because BMT patients are immunocompromised and neutropenic, fever is often the earliest sign of infection. Administering antibiotics within a one-hour time frame of fever onset is imperative to help decrease the incidence of sepsis (Wingard et al.). This quality improvement project is innovative as it focuses on a multidisciplinary team. This project included members from pharmacy, RN staff, quality department members, and laboratory representatives. This topic is vital to the livelihood of BMT patients and improvements in timing of antibiotic administration in these patients is crucial.

## P6

### ONCOLOGY NURSE NAVIGATION PATHWAYS: USE OF PATHWAYS TO OPTIMIZE THE DISEASE SPECIFIC NAVIGATION PROCESS

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Our institution has 11 general and 25 disease specific Oncology Nurse Navigators (ONN's). General navigators rarely see certain cancers, making it difficult for

them to become experts at navigating those patients. Well-designed pathways have the potential to serve as a foundation for comprehensive patient care, while promoting efficient, higher quality care (Chiang et al., 2018). Creating disease specific pathways was proposed to provide a reference tool to standardize workflow and act as a guide for ONN's to use in navigating disease sites they may not be familiar with. The objective was to create disease specific pathways to increase ONN confidence, standardize workflow and increase understanding of the ONN role within the healthcare team. Five cancer specific pathways were created by disease specific ONN's. These pathways included liver, pancreas, rectum, esophagus, and lung cancers. Completed pathways were disseminated to two cohorts: Cohort 1, general ONN's (n=9) and Cohort 2, other healthcare providers (n=30). Each cohort completed a cohort specific pre and post dissemination survey. Nine general ONN's completed both a pre and post survey. The pre-survey asked how effective they felt navigating each cancer type on a scale from 0-10, where 0 is not effective and 10 completely effective. The post-survey asked the same questions after reviewing the disease specific pathways. ONN's rated themselves in the pre-survey as effective (score > 6) 11%, 22%, 33%, 33%, 67% in navigating liver, pancreas, rectum, esophagus, and lung cancers, respectively. This increased to 88%, 88%, 88%, 88%, and 78% respectively. The increase was statistically significant, except for lung cancer. The survey was also sent to physicians, registered nurses, social workers, and dietitians. 30 completed the pre-survey question "How well do you feel you understand the role of the Nurse Navigator?" On a scale from 0 (Do not understand) to 10 (Fully understand), 73% had a good understanding (score>6) of ONN role. Only 13 completed post-dissemination survey where 62% found the pathways helpful in understanding the ONN role. Navigation pathways did increase ONN confidence in navigating sites they may not be familiar with. Surveys also revealed that other members of the healthcare team better understood the ONN role and services provided in the clinical setting. Development of additional disease specific pathways could impact confidence and understanding for other disease sites.

## P7

### THE IMPLEMENTATION OF ACUITY-ADAPTABLE ROOMS IN THE INPATIENT ONCOLOGY SETTING

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Complex medical oncology patients admitted to the hospital are at higher risk for transfer to higher levels of care. At our medical academic institution, on average three patients are located on the intermediate-care/step down unit daily, as opposed to the 26-bed medical-surgical inpatient oncology unit due to complex clinical needs, which are outside of our current scope. Acuity-Adaptable Rooms (AARs) is a healthcare model aimed to provide care for patients from admission to discharge, with the flexibility of nursing staff to provide consistent care despite the changing patient needs. Literature suggests transitioning the inpatient oncology unit to the AAR model could decrease patient transfers and length of stay (LOS), resulting in cost savings that will justify the cost of investing in additional nurse education and training (Bonuel et al., 2013, p. 919). The purpose of this project is to evaluate the impact of an AAR model within the oncology setting. Nursing leadership, with the guidance of Critical Care and Intermediate Care educators, formulated a robust education plan aligned with ACCN guidelines to cross-train Oncology RNs to develop the competence needed to care intermediate-level of care patients. RN staff completed ECCO training and cardiac and pulmonary didactic courses to gain the knowledge and skills needed to manage CPAP/BiPAP, high-flow nasal cannula, low-dose cardiac drips, and other domains of monitoring that require 1-2 hour assessment and interventions. After training concludes in November 2022, six patient rooms on the medical-surgical oncology unit will be used to accommodate intermediate-level of care patients. Current average LOS is 6.9 days. AARs are associated with an average LOS decrease of 30% (Bonuel et al., 2019). Once education and training has completed, a cost-analysis will be performed to determine total cost of RN training investment compared to potential cost savings resulting from a decreased LOS. Number of patient transfers will also be evaluated. Keeping patients on the oncology unit is also predicted to preserve patient safety, as well as improve patient and staff satisfaction. While there are financial impacts associated with the cross-training program, comparing the cost of training to improvements in clinical outcomes could contribute to a return on investment (Opperman, 2016). This will show the value of continued professional development for oncology nurses, and provide evidence for the further adaption of the AAR model within the inpatient oncology setting.

### P8 MAKING THE CONNECTION:

### IMPLEMENTATION OF A WEEKLY HUDDLE FOR PATIENTS THAT ARE RECEIVING CONCURRENT RADIATION AND CHEMOTHERAPY

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When patients receive care in separate departments it can lead to treatment schedule uncertainty, adverse symptom management confusion, and overall lack of urgent care issue responsiveness. Nursing leadership from radiation oncology and the infusion department met to improve communication for mutual patients. Historically, patients who were being treated with combination therapy were managed by each department independently. Skin changes, decrease in oral intake often times went unidentified until severe symptoms developed. At times patients are unsure which office to call. Our nursing teams identified that greater collaboration was required to improve outcomes by providing proactive, streamlined, effective, supportive care. The purpose of this project was to open the line of communication and connect two departments who were caring for the same patients. Using a regularly scheduled huddle eliminates the communication gap for patients simultaneously receiving chemotherapy and radiation therapy. A structured plan was put in place and agreed upon which connected the two teams for a 7:45am weekly huddle. This team consisted of nurses, dietitians and social work. The expectation was to communicate and identify new and high risk patients, monitor where patients are in their treatment course, and provide proactive supportive care to those identified as high risk. A shared list was created within the electronic medical record and reviewed weekly. Current schedule, side effects, and patients who require supportive care is discussed in a comprehensive manner. After the first two huddles, the clinical nursing team took on the responsibility of running the weekly meetings. The team reviewed each patient's schedule and course. The expectation was set to uphold professional accountability, to meet on time each week ready for a comprehensive conversation. On average 15 patients were discussed. Patients identified at high risk for weight loss were referred to nutrition. Patients with transportation difficulties were assisted by social work. During this review, gaps were identified and interventions were placed to provide support. Six months have gone by since implementation of the weekly huddle. Staff have reported feeling prepared, organized and connected to patient's treatment plans, progress, and goals. The

participation from our interdisciplinary teams has been a key component for discussing interventions for high risk patients. This process has been slowly introduced to other departments. A new best practice was created as a result of the team's connection.

## **P9**

### **NURSE MANAGER CNS PARTNERSHIP FOR QUALITY ROUNDING**

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With the stresses of Covid-19 and challenges with staffing, our oncology medical-surgical unit saw a slip in our nurse sensitive indicator quality metrics. A few interventions were put into place that helped for a short time but didn't take traction. The Nurse Manager (NM) and Clinical Nurse Specialist (CNS) looked for evidence-based ideas to get the quality metrics to below the National Database of Nursing Quality Indicators (NDNQI) benchmark targets. Using the Define, Measure, Analyze, Improve, Control (DMAIC) quality improvement methodology we put into place a plan to do weekly quality improvement rounds. The purpose of the quality rounds by the NM and CNS is to determine if preventative measures are properly in place and to re-enforce education to the patient and family. Follow up can also be provided to the nursing staff about measures not in place or not yet completed. Feedback to the staff can be provided in real time. Each week an appointment is sent so there is dedicated time for the rounds on both the NM and CNS calendar. Determination of which patients to see is based on presence of a central line, foley catheter, Braden score below 18 and being a fall risk. There are several items we are looking for when in the room. For example, when rounding on a patient who is at a risk for falling, we check that the bed alarm is on and plugged in correctly, the floor is free from any tripping hazards, the bedside table with frequently needed items is within arm's reach as is the call light and we re-enforce to call for help before getting out of bed. If we find items not in place, e.g., the bed alarm is not turned on, we turn the alarm on and follow up with the nursing staff. Currently, the quality rounds have been in place for almost two months. Since that time there have been two falls, no pressure injuries, no central line associated blood stream infections (CLABSI) nor any catheter associated urinary tract infections (CAUTI). We will continue to monitor effectiveness of rounding. Oncology patients are at a higher risk of infection and injury. By hard wiring interventions, we can

prevent complications, decrease hospital length of stay and improve quality of life.

## **P10**

### **IMPROVING OUTPATIENT PRACTICES FOR CARE OF PATIENTS RECEIVING ORAL ANTI-CANCER MEDICATIONS**

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#### [Treatment Modalities](#)

The management of patients receiving oral anticancer therapies has been a challenge to the health care team for years. ONS originally developed tools for oral adherence in 2010. In 2013 ASCO and ONS updated the original version of the Chemotherapy Administration Standards to include safe administration and management of oral chemotherapy. Subsequently, ONS revised the Oral Adherence Toolkit in 2016, updating them in 2022. In July of 2022 the ONS Guidelines to support patient adherence to oral anticancer medication was published in the Oncology Nursing Forum. These, along with other resources for oral adherence provide a firm background for program development. Our goal is to devise an oral anticancer program to support this high-risk population in their medication management, increasing adherence, decreasing adverse events, and improving patient satisfaction. Initially we identified a need for provider support in our effort, as they are the individuals initiating therapy. A tracking tool in the form of a spreadsheet was developed on a shared drive, enabling all involved to enter data. This information was designed to be easily shared by the physicians, pharmacy and nursing. Information incorporated is the patient's name, drug, order date, prior authorization information, dates of education/consent and initiation of therapy, patient calendar, follow up dates, adverse events (tracked as ED visits and hospitalizations) refill dates and comments. Working with the providers and the pharmacy we are attempting to assure that the patients are monitored, and the information is captured in the EMR. We will continue to evaluate patient adherence to the medication regimens, compliance with the consent process, ED visits and hospitalizations through the interdisciplinary use of the spreadsheet data. Patient Satisfaction will be evaluated using our standard satisfaction questionnaire. Oral adherence is essential to quality patient outcomes. ONS and ASCO provide us with evidence-based interventions to support patients on oral anticancer medications. It is up to us as nurses to take a leading



role in promoting a structured framework for the care of these individuals. Oral adherence programs have been supported in large healthcare systems, but much of the care is still delivered on the community level. We need to focus our efforts and attention on increasing community awareness of the care of this patient population. Future efforts may include building oral chemotherapy order sets with appropriate labs, testing and follow-up appointments.

## P11

### LET'S TALK ABOUT SEX AND TREATMENT: DEVELOPING A SEXUAL HEALTH HANDOUT FOR AYAS

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#### Patient Education and Safety

Sexual health is an important domain of health-related quality of life (HRQoL) for many individuals. Sexual health is an often unaddressed or under-addressed need for cancer patients. Oncology providers often feel ill prepared to address the sexual health needs of cancer patients. Many adolescents and young adults with cancer (AYAs, diagnosed between ages 15-39 years of age), experience challenges around sexual health and intimacy that causes distress and diminishes their HRQoL. Changes in body image, sexual desire, and sexual function are common sexual health problems reported by AYA cancer patients. The need for reliable contraception also needs to be addressed with cancer patients of childbearing age undergoing treatment with chemotherapy, immunotherapy, and/or radiation. Oncology providers are in the position to address the sexual health needs of a cancer patients. The AYA program created a patient education handout to address common sexual health problems associated with chemotherapy, immunotherapy, radiation, surgery, stem cell transplant and endocrine therapy. The handout also addressed things to consider before having sex, the need for contraception, and recommendations on timeframe to avoid pregnancy after completing treatment. The "Sex and Treatment" handout is in the process of review and approval. We are currently seeking evaluation by the institutional AYA Advisory Board. No formal evaluation from patients has been obtained presently. The development of a patient education handout on sexual health can help ensure patients' sexual health concerns are addressed and that Oncology providers are providing consistent

guidance to patients. Addressing the sexual health needs of AYA patients can minimize distress and positively impact HRQoL.

## P12

### THE IMPORTANCE OF ENGAGING CLINIC NURSES IN NURSING RESEARCH

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#### Professional Development

Opportunities for clinic nurses to participate in nursing research in the community setting are not as plentiful as in the academic arena. We describe how a community affiliate of an academic health system included clinic nurses on a research team. Nurse involvement included development and use of a web-based application (app) to record the physical activity of patients undergoing treatment for breast and prostate cancer. Clinic nurses first completed study specific and responsible conduct of research training. The nurses then screened potential subjects, performed informed consent, and conducted data collection at study visits (baseline and end-of-study at 4-weeks). Data collection required 6-minute walk test, Short Physical performance battery, symptoms assessments. After baseline data collection, physical activities tailored to the subject abilities and use of the daily app to record activities was reviewed with each participant. Periodic calls to the subject were provided by another nurse to ensure subjects completed their app entries. The nurses, having little experience with nursing research found the participation easy to accommodate into their daily schedules. Participation in a debriefing session both early in the study launch and intermittently across the study, permitted the team to discuss study activities within clinic workflow, as well as addressing recruitment/retention issues and participant engagement. Nurses found they could integrate these lessons-learned into guiding subjects to be more adherent. Additional lessons included: shift from recruiting during the first cycle of treatment as patients were adjusting to cancer diagnosis to waiting until the second cycle; permit adequate time for patients to read the consent and answer all their questions; collect data prior to chemotherapy treatment due to burden of symptoms following; engage our

medical team in screening and discussing study participation; every study has inevitable pauses (e.g., COVID, water leaks); don't rush the subjects when describing the intervention for their full engagement and comprehension; and discussing study challenges is important at every phase of study. Having clinic nurses actively engage in research activities was instrumental in study activation. We look forward to the next study and will engage our colleagues to become involved. Lastly, we've learned to integrate study findings into clinical practice as we teach patients to perform physical activities during their cancer care trajectory. The clinic nurses found they actually enjoyed study participation.

### **P13**

#### **CLIMATE CHANGE: MOVING FROM AWARENESS TO ACTION**

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##### **Oncology Nursing Practice**

Environmental pollutants are a major risk factor for global morbidity and mortality, being responsible for an increase in the incidence of and death rates from cancer, as well as contributing to climate change associated extreme weather events; affecting all aspects of the cancer care continuum. While these impacts affect everyone, vulnerable populations are disproportionately burdened, exacerbating existing health disparities. Oncology nurses play a critical role in educating patients on environmental health as well as serving as leaders in their practice setting, community, and health policy. The purpose of this project was to increase ONS member's awareness, develop educational resources, and strengthen advocacy efforts to reduce the effects of climate change on individuals at risk for and living with cancer. In an effort to educate and empower nurses, several interventions were implemented. A new ONS Community featuring daily posts on upcoming educational programming, proposed legislation, scientific and healthcare information, and fields questions from the growing number of Community members. This space has allowed nurses to reach out for support in managing local healthcare efforts during natural disasters. An interdisciplinary webinar was held in the summer of 2022. It focused on climate change and environmental health impacts on cancer care and advocating for policy solutions that reduce its burden of increasing health hazards on individuals and communities. A huddle card and podcast were developed for just

in time education. One hundred percent of the participants in the Implementation Science, Climate Change, and the Role of the Oncology Nurse webinar indicated that they gained knowledge, increased their confidence, and would recommend this learning activity to others; with 92% indicating they would make a practice change based. In only 6 months, the aforementioned ONS Community has steadily increased membership holding 45 unique discussion sessions. Additionally, the Environmental Health and Climate Change Huddle Card has had 200 views, while the Environment, Cancer, and Nurses' Role in Advocating for Climate Change podcast saw 4,995 downloads since released in January, 2022. Data from this project demonstrated that oncology nurses are interested in the effects of climate change and value the education and resources provided. Findings from this project also reveal that ONS has a core group of members advocating for climate awareness that has come together to lead change. Additional education and advocacy activities are in development.

### **P14**

#### **THE IMPACT OF NON-PHARMACOLOGICAL SLEEP AIDS ON PATIENTS' REPORTED QUALITY OF SLEEP**

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##### **Oncology Nursing Practice**

Sleep is essential in the healing process. Hospitalized patients' sleep is often interrupted by environmental noise and staff. When patients experience a reduced quality of sleep, their immune function, metabolism, and wound healing are adversely affected. Patients in a 24-bed bone marrow transplant unit were reporting a reduced quality of sleep. Research suggests that the use of eye masks and ear plugs may have a positive effect on patients' sleep quality, including sleep depth and decreased sleep interruptions. The project evaluated the following: In hospitalized patients on a bone marrow transplant unit, does the use of non-pharmacological sleep aids compared to no intervention improve patients' reported quality of sleep? Participants were asked to rate the quality of sleep they had the previous night in the hospital on a 1-10 point scale. A rating of 1 was considered to be the "worst sleep possible," and a rating of 10 was considered to be the "best sleep imaginable in the hospital." After baseline data were collected, a sleep kit consisting of an eye mask, ear plugs, and a do not disturb door sign was given to patients. Hospital staff and patients were educated on the contents and rationale for the sleep kits. The sleep kits proceeded to be given to patients upon admission and

transfer to the unit. Two weeks after sleep kits were implemented, post-intervention data were collected using the same process as data was collected pre-intervention. Providing patients with a non-pharmacological sleep kit slightly improved their reported sleep quality. The average age of participants was 53.8. Most participants were female. Pre-implementation score, using the 10-point scale was 5.7. Post-implementation scores rose to 6.1. Post-implementation surveys revealed that patients who continued to report poor quality sleep attributed their poor sleep to pain or discomfort in the hospital beds. Hospitalized patients report reduced sleep quality. Use of non-pharmacologic interventions, although recommended in the literature, are utilized less frequently than pharmacologic interventions. This project demonstrates the positive impact that non-pharmacologic interventions can have to support patients during a hospitalization.

## **P15**

### **USING A MICRO-LEARNING PATIENT EDUCATION VIDEO TO PROMOTE SURVIVORSHIP CARE**

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#### **Survivorship**

Quality survivorship care includes a thorough assessment of a patient's physical and psychosocial concerns. As patients transition from treatment to wellness, they can benefit from a dedicated evaluation with an advanced practice provider (APP) that addresses their needs and available resources. To help guide the first survivorship visit, a detailed online needs assessment survey was emailed to patients for completion at home. Survey answers populated into the patient's electronic medical record, highlighting key areas of concern for the APP to focus on. However, patients often did not complete the survey in advance, leading to a potentially sub-optimal visit. In addition, a higher than expected no show rate to initial survivorship visits raised concerns for gaps in patient education and continuity of care. Micro-learning videos can provide complex messages in a short amount of time. The purpose of this project was to create a health literacy friendly, micro-learning patient education video to promote

survivorship care and improve completion rates of the needs assessment survey. Additional goals were to lessen staff workload by automating delivery of the video to the patient and to improve no show rates. An interdisciplinary team, led by the cancer center's Office of Patient Education, created a three and half minute animated micro-learning patient education video. Content included an overview of the survivorship program, including rationale and benefits, next steps and the importance of completing the online survey prior to the first visit. Video production incorporated fundamental best practices for health literacy including plain language, clear design and feedback from patient and family advisory council members. Statistics include video views and completion rates, viewer confidence in understanding the key messages in the video, overall satisfaction with content, number of completed surveys prior to first visit and no show rates. For health literacy, understandability and actionability scores from the audiovisual Patient Education Materials Assessment Tool (PEMAT-A/V) will be reviewed. Micro-learning videos are a simple intervention that can provide clear, consistent messaging to patients at various points in their care. Automating delivery of videos via email frees staff to focus on other tasks and allows patients to process information in their preferred setting. In addition to improving knowledge, micro-learning videos can promote behaviors that positively impact patient care.

## **P16**

### **EMPOWERING PRIMARY SUPPORTIVE CARE NURSING AND QUALITY IMPROVEMENT**

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#### **Symptom Management and Palliative Care**

The Oncology Nursing Society recommends early initiation of palliative care as the gold standard in patients with advanced cancer. Palliative care increases patient satisfaction & quality of life (QOL), while decreasing health costs and caregiver burden. Oncology nurses play a pivotal role in integrating a palliative/supportive care approach, by serving as a critical link between the healthcare team and promoting open dialogues to

discuss/respect patient & caregiver values. Improving QOL & symptom burden are key goals but unfortunately the literature states that those diagnosed with advanced cancer rarely engage in discussions about their values and preferences. Nurses spend more time with patients (and caregivers) than any other health-care professional, but many expressed little knowledge in palliative and end-of-life (EOL) care. Nurses would like to see standardized initiation of palliative care for all patients, discussions initiated at time of diagnosis and offerings to aide in the nurse's confidence when discussing patient's & caregiver's values. The Supportive Care Service partnered with the Department of Nursing to create a Supportive Care Nurse Champion Committee (SCNCC), which has participated in and founded multiple interdisciplinary and evidence-based interventions related to palliative and EOL care. Our champions participate in the annual National Health-care Decision Day promoting advance care planning, participate in the End-of-Life Nursing Education (ELNEC) curriculum and Death over Dinner talks, weekly educational grand rounds, monthly champions meetings, and regularly collaborate with our Supportive Care CNS on unit- or service-based initiatives. Quality improvement projects include enhanced education about palliative care, comfort care signage, condolence card initiative, and "Goals of Care Chair" program. To evaluate our promotion of quality palliative and EOL care within our institution, we ensured there are 2-3 champions on every patient unit as well as outpatient areas (133 in total) We have measured the number of nurses attending our annual Supportive Care continuing education day and participating in quality improvement work specific to EOL and palliative issues. As a major comprehensive cancer center, we aimed to accomplish standardization of best practices while incorporating supportive care measures into daily practice. Implementation of the SCNCC at the inpatient and outpatient level impacts patients at all points of their cancer continuum. The interdisciplinary collaboration achieved by the SCNCC promotes delivery of Relationship Based Care and patient-centered care and exemplifies evidence-based practice.

#### **P17 PHARMACY NURSE: THE IMPORTANCE OF STREAMLINING AND COORDINATING CHEMOTHERAPY ORDERS FOR ACCURACY**

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High patient volumes, complex chemotherapy checks,

and paper orders caused a need to re-evaluate the system of performing second chemotherapy checks. A need to improve efficiency, thoroughness, minimize unnecessary calls to providers, relieve stress on nurses providing patient care, and most importantly to provide the safest care possible for the oncology patient population drove the change process. Finding an undistracted, not busy certified chemo RN to perform a second check can lead to errors and delays in patient care. One specially trained chemotherapy certified RN designated to perform all the second checks on chemotherapy being administered on that treatment day was an improvement initiative started more than 10 years ago. A system and guidelines were developed for the RN in this new role to use. Responsibilities included reaching out to providers for: clarification of orders, corrections of order errors, addition of orders for transfusion, electrolytes and hydration, and dose reduction and dose elimination. This "Pharmacy Nurse" role has been invaluable for the improvement of care and safety for our patients. Our infusion center of approximately 25 RNs consists now, of 5 pharmacy nurse role capable nurses, who meet periodically to refine and improve the role and to discuss consistency of care so that the providers are clear on the expectation of what we are asking from them. All of these checks, clarifications and order error reductions are performed so that when the Treating RN looks at her Beacon orders to do her pre-treatment checks, the orders are as accurate as possible and time is not wasted trying to obtain further clarification of patient orders. The Pharmacy RN role is being presented in this abstract is to demonstrate the steps we have taken to implement this role and how the Pharmacy RN role can make better use of the Treating RNs patient care time, improve accuracy of Chemotherapy orders and additional treatments, and facilitate timeliness of patient care. The success of the Pharmacy RN role has been invaluable in improving the timeliness of patient care, the accuracy of Chemotherapy orders for patient treatment and improved Clinical Nurse satisfaction in the Infusion Suite.

#### **P18 USE OF A STOPCOCK FOR CENTRAL VENOUS ACCESS DEVICE THERAPEUTIC PHLEBOTOMY PROCEDURES: IMPLEMENTATION OF A NURSE COMPETENCY AND EVALUATION OF NURSE PERSPECTIVES**

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### Treatment Modalities

Therapeutic phlebotomy (TP) removes 450-500mL of blood from a patient to reduce complications of polycythemia or iron overload. The procedure is done peripherally using IV access and a blood collection bag or centrally using a central venous access device (CVAD). Patients with a CVAD may not have adequate peripheral access for the procedure and prefer to avoid unwanted sticks for vein preservation. CVAD TP procedures consists of 45-50 consecutive, manual blood draws. Nurses scrub the hub, connect, and withdraw from the CVAD repeatedly. Nurse fatigue, which may lead to improper aseptic technique and associated infection risk prompted inquiry regarding use of a sterile, three-way, closed system stopcock for CVAD TP. Literature review and benchmarking revealed limited information about how to reduce nurse fatigue or infection risk. Upon consultation with stopcock manufacturers, one with the above criteria was identified for use. The purpose was to share an approach to incorporating a nurse competency for stopcock use as an option for CVAD TP; and to evaluate nurses' knowledge and perspectives, including procedural preference, confidence, fatigue, time, and ease of use. A 2-part competency was developed including a mandatory online educational module and a precepted experience. A pre- and post- procedure survey evaluated nurses' knowledge and perspectives on the education and competency, as well as procedural preferences on performing CVAD TP. Additional survey data evaluated nurses' perspectives on confidence, fatigue, time, and ease of use. Ongoing practice monitoring strategies were designed and implemented. The 2-part competency increased nurses' ability and confidence in performing CVAD TP. The stopcock method did not decrease nurses' perceptions of fatigue or procedural time. This may be related to complications encountered using the stopcock related to clotting of blood during the procedure for patients with or without known patency challenges. Although not shown to decrease fatigue or performance time, using a sterile, three-way, closed system stopcock allowed for less manipulation of the CVAD reducing infection risk. Due to clotting of blood which often resolved with a change in claves or stopcock, nurses did not perceive benefits to time reduction or fatigue. TP education is required upon hire and annually. Education reviews updated policy changes and both peripheral and CVAD TP procedures. Stopcock use provided a safe option and respects patient preference for CVAD use. For patients with malfunctioning ports, challenges remained.

### P19

#### EVALUATING THE USE OF WEIGHTED BLANKETS AS AN ANXIETY REDUCTION TOOL DURING CANCER TREATMENT

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#### Symptom Management and Palliative Care

When a person is first diagnosed with cancer, anxiety is a common emotion. Oncology nurses often observe this heightened anxiety, especially early in a patients' infusional treatment. At an adult ambulatory infusion clinic in the Northeast, patients reported anxiety as one of the top three symptoms experienced upon diagnosis. A nursing team met to review the literature on anxiety management. Evidence indicated that weighted blankets have few side effects and help to reduce anxiety in various populations, including patients with cancer. Benchmarking revealed few cancer centers use weighted blankets. The team received grant funding to purchase medical-grade weighted blankets that could be easily cleaned between patients for infection control. The purpose was to share one infusion center's approach to support anxiety reduction by providing weighted blankets for chemo/immunotherapy-naïve patients receiving their first and second treatments. Treatment-naïve patients admitted to the ambulatory infusion clinic for chemo/immunotherapy infusions were offered a weighted blanket with their first and second treatment visits after voluntary consent was obtained at their teaching visit. A confidential pre-survey (before infusing chemo/immunotherapy) and post-survey (after wearing blanket for 20 minutes) evaluated self-reported state anxiety levels and patient usability. Infusion nurses were educated on the use of weighted blankets and voluntarily completed surveys addressing feasibility of use. Patients' anxiety was reduced with the use of weighted blankets with the most dramatic reductions seen with the first infusion visit. Comparisons of pre- and post-survey results showed that extreme anxiety reduced from 6% to 0%; moderate anxiety reduced from 28% to 18%; and reports of very little to no anxiety increased. 100% of nurses reported the use of weighted blankets as being feasible (easy to apply/carry, did not interfere with care, etc.). Open ended patient survey feedback was overwhelmingly positive. Noted themes included "comforting," "calming," "relaxing," and "appreciated."



Weighted blankets enhanced the patient experience and supported anxiety reduction across first and second treatments. Nurses found them feasible for use in clinic and appreciated the benefits for their patients. Anxiety reduction and management strategies for patients during initial infusion treatments for cancer are needed. Including weighted blankets in a comprehensive toolkit of strategies may impact important outcomes such as treatment adherence

## **P20**

### **BRIDGING THE GAP: PATIENT NAVIGATION FOR AN INPATIENT GYNECOLOGIC POPULATION**

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#### **Coordination of Care**

In 1971, President Nixon signed the Health Disparities act. Hearings conducted in 1989 by the American Cancer Society led to a report on health disparities. Issues identified were culture insensitivity, fatality related to illness, and lack of resources. Based on the findings, the first navigation project was initiated in 1990 in Harlem, New York. Patient Navigation focuses on personalized assistance to patients and their families from initial cancer diagnosis, throughout treatment, and into survivorship. At our facility, Patient Navigation is a free service available only in the outpatient cancer center. In an effort to make Patient Navigation services available to all, this project was launched with an initial focus on gynecologic cancer patients. The goal of the project is to provide earlier introduction of Patient Navigation services. Project participants included Patient Navigation team and inpatient surgical oncology unit staff. A gap analysis was conducted to identify specific tasks of nursing groups. A team reviewed results and identified next steps which included:

- Educational offering for the staff to share services available from Patient Navigation
- Attendance by Navigators at multidisciplinary rounds (MDR) to identify specific individuals that would benefit from navigator outreach
- Navigators developed a listing of patients to follow through survivorship

The number of gynecologic patients seen by Navigation increased from 6.5 patients/month (January 2021-December 2021) to 8 patients/month (July 2022-August 2022), a 19% increase. Beginning in July 2022, patients identified during MDR received a follow up call from the Patient Navigator within a week of discharge. Barriers that were identified by the Patient Navigator included fear / anxiety, transportation issues, and travel to the metro area. Individuals that were not returning to the medical center were provided contact information for any additional care needs that might arise. Next steps are as follows:

- Contact patients prior to admission for surgery.
- Expand the project to all surgical patients on the unit.
- Expand referrals by leveraging the EHR.

Inclusion of the Patient Navigator in MDR allowed for early identification of patients who would benefit from navigation services. Collaboration with the EHR team will provide for a smoother referral process.

## **P21**

### **PSN IN ACTION: MAXIMIZING THE RESPONSE TO DECREASE OCCURRENCE OF SAFETY EVENTS AND INCREASE STAFF ENGAGEMENT FOR ENACTING AND SUSTAINING CHANGE**

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#### **Patient Education and Safety**

Nurses in an ambulatory clinic dedicated to Immunotherapy/CAR-T Cell therapies at a large NCI-designated Cancer Center identified a need to increase staff awareness and emphasize importance of reporting safety events. The Patient Safety Net (PSN), in keeping with the guidelines from the Agency for Healthcare Research and Quality, (AHRQ) recognizes that errors are best viewed as needs for systematic analysis and processes to promote likelihood of preventing errors from occurring. The purpose was to design a system and process for analysis of errors and identification of root cause. The goal of the process is educating staff while driving changes that are both able to be implemented on a unit-level and sustainable in nature. The Local Practice Council (LPC) in Immunotherapy (IMTX) convenes monthly to promote dialogue amongst frontline staff and make decisions that impact the delivery of care. LPC reviews PSN's in IMTX, discusses contributing factors, lessons learned, and makes recommendations based on review of institutional policy. LPC then summarizes this process by creating a PSN in Action flyer,



presenting the Problem, Intervention(s), and Result(s) and sharing with frontline staff in daily safety huddles, staff meetings, and posting on the IMTX LPC board. This process allows for discussion and socialization of rationale behind policies and procedures with frontline staff by their peers, promoting local engagement with patient safety within nursing practice. Through PSN in Action, patient-facing staff realize that they are not alone in the safety events that they experience. Staff recognize that change can happen incrementally following the reporting of errors and accidents, thereby destigmatizing the reporting of these safety events. The PSN in Action engages LPC members in problem solving safety issues that are commonly encountered and further enlists them in creating solutions and identifying opportunities to improve organizational policies and procedures. The PSN in Action process summarizes salient information for all department staff in actionable terms and fosters sustainable change. A unit-based model of safety event review and change recommendations was created. The process promotes staff engagement and facilitates awareness of the value of reporting events, assures change is linked to policy and best practices, and promotes quality outcomes for patients.

## **P22**

### **SELECTION AND VALIDATION OF PRO-CTCAE™ SCALE ITEMS FOR PATIENTS RECEIVING TYROSINE KINASE INHIBITORS**

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#### **Patient Education and Safety**

Patients receiving oral chemotherapy with tyrosine kinase inhibitors (TKI) have specific adverse effects. The Patient Reported Outcome Measures (PROMs) can improve understanding and facilitate shared decision-making between patient and clinicians by enhancing the accuracy and efficiency of adverse effects detection. The purpose was to identify the main signs and symptoms reported by patients with cancer during treatment with TKI and validate the selected PRO-CTCAE™ items, resulting in the development of the PRO-CTCAE™ TKI-Br instrument. METHOD: This is a methodological study, divided in two steps. The study headquarters was the Federal University of São

Paulo, Unifesp, São Paulo, Brazil. Step 1: Integrative literature review identifying the adverse signs and symptoms of TKI use and development of the PRO-CTCAE TKI-Br version. The search strategy used was SPIDER, being: (S) Sample, cancer patients receiving oral TKI; (PI) Phenomenon of Interest: adverse effects related to TKI; (DE) Design: observational and experimental studies; (R) Type of research: reviews of any type in the National Library of Medicine, Web of Science and Embase databases. Step 2: Content validation of the PRO-CTCAE™ TKI-Br with six experts, using the Delphi Technique. Participant experts: nurses and physicians experienced in symptom management and TKI prescribing, respectively. The Content Validity Index (CVI) was used to obtain the degree of agreement between experts, aiming for a minimum agreement of 0.80. RESULTS: 24 articles were selected using the flowchart, according to PRISMA criteria (Preferred Reporting Items for Systematic reviews and Meta-Analyses) and the results organized into clusters of adverse signs and symptoms according to the organic systems: gastrointestinal, dermatological, cardiac, renal and pulmonary, myelotoxicity and fatigue and others not included in the previous clusters. The instrument consisted of 17 symptoms and called PRO-CTAE™ TKI-Br. Subsequently, the symptoms were evaluated by the experts. In the first round an overall CVI of 0.878 was obtained and, in the relevance, objectivity and precision criteria, CVI values were greater than or equal to 0.9 and, thus, no symptoms were excluded. In the second round, 5 symptoms suggested by the experts were included; however, only three dermatological symptoms were accepted and included in the PRO-CTAE™ TKI-Br. CONCLUSION: The PRO-CTAE™ TKI-Br instrument obtained consistent content validation and its final version contains 20 specific symptoms for the self-assessment of patients receiving oral chemotherapy with TKI.

## **P23**

### **CONTINUUM OF CARE: A DESIGNATED OUTPATIENT TREATMENT ROOM IN AN INPATIENT SETTING**

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### Coordination of Care

Autologous Bone Marrow Transplants are being performed more frequently in the outpatient setting. The outpatient BMT clinic is open Monday-Friday, without weekend coverage from BMT nurses or providers. Previously, BMT patients were seen in another ambulatory clinic within the cancer center, and care was managed by oncology infusion nurses and providers. While being adequately cared for at this location, it was determined there was a need for specialized BMT competent nurses and providers for this patient population. The inpatient BMT unit has a designated room to care for outpatient BMT patients' when the clinic is closed. This treatment room historically has been staffed by inpatient nurses. However with the significant increase in this patient population and to provide continuity of care, the outpatient BMT infusion nurses are now staffing this treatment room. The purpose was to ensure patients receive highly specialized nursing care throughout their transplantation journey. Weekend outpatient coverage aims to prevent the need for hospital admission and provides continuity of care. The inpatient nurses who previously staffed this treatment room can now focus solely on staffing the inpatient unit. In collaboration with inpatient and outpatient nursing and provider teams, an interdisciplinary weekly safety huddle was initiated to discuss patients' treatment plan, staffing and any additional safety concerns. BMT infusion nurses are staffing the designated treatment room based upon weekly patient census. Orientation to the inpatient unit and designated treatment room was provided by the inpatient nursing staff. This care model allows the BMT team to provide continuity of care as well as effectively manage nursing resources. Utilization of the treatment room on weekends contributes to continuity of care, which then increases patient satisfaction. Having the treatment room helps prevent potential hospital admissions and allows any concerns to be addressed immediately by BMT trained staff. All of these factors are monitored as part of this care model. The goal is to provide continuity of care to BMT patients 7 days a week by the BMT interdisciplinary team, and effectively utilize nursing resources.

### P24

#### **ANORECTAL MELANOMA: DETECTION, TREATMENT, SURVEILLANCE**

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Anorectal melanoma is an uncommon yet aggressive

mucosal melanocytic malignancy. It has an incidence of 2.7 per 10 million people in the United States. It occurs more frequently in older patients and sun exposure is not a risk factor. It is noted with median survival of 16 months and overall survival of 14% at 5 years. Due to its rarity, the pre-operative diagnosis remains difficult. The first symptoms are non-specific such as anal bleeding, anal mass or pain. Anorectal melanoma is staged on a clinical basis, focusing on loco-regional and distant spread. Stage I is local disease only, Stage II is a local disease with increased thickness and ulcerations, Stage III is local disease with involvement of regional lymph nodes, and Stage IV shows distant metastatic disease. Prognosis is generally poor. The purpose of this abstract is to bring awareness and discuss detection, treatment, and surveillance of anorectal melanoma. Interventions include surgery, immunotherapy, targeted therapies, radiotherapy, and chemotherapy. A full history is obtained and signs and symptoms are noted which may include bleeding, anorectal discomfort or pain, anorectal mass, change in bowel patterns, pruritis, tenesmus, prolapsed hemorrhoid, change in stool and diarrhea. A biopsy is critical to establish a diagnosis of anorectal melanoma. A PET Scan may also be used to evaluate the level of metastasis. Anorectal melanoma is a rare and aggressive disease with an overall poor prognosis. Patients should always be treated with a multidisciplinary team approach. All patients should be evaluated for clinical trial eligibility. Because of its rarity, smaller studies are only available and suggest immunotherapy has an important role at all stages for anorectal melanoma and may improve survival. Although immunotherapy can be used for primary therapy in patients with advanced disease, future research will clarify the role for neoadjuvant and adjuvant approaches in the treatment of this complex and challenging malignancy.

### P25

#### **PHYSICAL ASSESSMENT OVER TELEMEDICINE**

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The quick utilization of telemedicine services during the COVID-19 pandemic has resulted in a paradigm shift, where patients are now taking appointments from the comfort of their homes, instead of coming

into clinic. With the chance of decreased infection, telemedicine is not only beneficial to people affected by cancer, but for other high-risk populations as well. To meet the demands of the rapidly increasing volume of virtual visits, nurses need to be provided with a standard of how to perform physical assessments over telemedicine. The aim of this clinical inquiry was to synthesize evidence and turn the findings into a guide for clinical staff. A systematic search was conducted using a PICOT question and MeSH terms. Databases, filtered to include publications in English, using humans and published within the past 5 years, included CINAHL, PubMed, SCOPUS, Web of Science, and Embase. Two hundred seventy-nine articles were identified. A three-member team critically appraised them, and 27 articles were identified as keepers. These included cohort studies, systematic reviews of qualitative studies, qualitative studies, expert opinions, and one systematic review of randomized controlled trials. Synthesis of the evidence found that the most suitable physical exams over telemedicine should include focused assessments of the head, eyes, and neck, musculoskeletal, cardiac, respiratory, neurology and integumentary systems. Detailed guidance for each system was summarized and will be presented. Guidance for patient set up prior to the telemedicine visit and various opportunities for leveraging home technology for assessment is described. Final presentation will describe each system and guidance on the completion of physical assessment over telemedicine as well as patient instructions for optimizing and preparing for the visit. With the expansion of telemedicine visits, the nurse plays a significant role in conducting virtual assessments with ambulatory patients. Not only does telemedicine offer a more personal connection than telephone visits, but it also allows for healthcare providers to perform some parts of a physical exam. With that, nurses need a guide for completing physical assessments over telemedicine to ensure that appointments are maximized to its full potential. By creating a guide, the nurse is further resourced to fulfill their scope of practice on how to deliver routine care to patients and support best patient care outcomes.

## P26 ENSURING GERIATRIC PATIENT READINESS FOR TREATMENT

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### Coordination of Care

Over 55% of new cancer diagnoses occur in people aged 65 or older (SEER data, 2022). As people age, they are at an increasing risk for multiple comorbidities and frailties ~ which can impact morbidity and mortality associated with cancer treatments. Geriatric assessments are key to guiding decisions and improving outcomes in this population. In our clinic, the oncology nurse navigator does the initial intake evaluation, then facilitates the completion of diagnostic tests prior to the initial appointment with the oncologist. The objectives for this project were to 1) incorporate a geriatric assessment into the oncology nurse navigator initial intake for suspected or newly diagnosed cancer patients aged 65 years or older; 2) develop a consistent workflow for referrals based on the geriatric assessment; 3) and provide the oncologist with information that may guide treatment decisions prior to their initial consult. Intervention: Initial steps for this project involved bringing all department stakeholders (i.e., oncologists, oncology CNS, nurse navigators) to define goals, potential challenges, and key elements (e.g., geriatric assessment, interventions, referrals, resources) required for implementation. The G8 is an easily administered screening tool that evaluates age, food intake, weight loss, mobility, neuropsychological conditions, body mass index, polypharmacy, and patient's perception of their health status. This tool is used to predict mortality. The Cancer and Aging Research Group (CARG) was utilized to determine estimates of chemotherapy toxicity. Workflows were developed to guide referrals of those who met specific criteria for polypharmacy and/or nutritional issues. The geriatric assessment was easily incorporated into the navigation intake, but administration was challenging for individuals with dementia, or were non-English speaking. Workflows included: 1) standardized messaging to primary care providers regarding minimizing polypharmacy, 2) dietician outreach to address nutrition, and 3) social worker involvement for those who would benefit from increased family support and/or completion of advance directives. Geriatric assessment by the nurse navigator provides a more complete picture for the oncologist to individualize the cancer treatment plan to decrease morbidity and mortality. Summary: The oncology nurse navigator functions as a patient advocate, identifying and addressing barriers to care. Their role is essential for providing early evaluation and initiation of referrals, thereby improving the care of older individuals with cancer.

## P27

### ASSESSING OLDER PATIENTS WITH CANCER: A SYSTEMS APPROACH

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Systemic assessment of older cancer survivors may vary from assessment of younger adults. The nurse assessing older adults must consider changes due to the aging process and comorbidities that commonly affect the elderly. Nurses need improved assessment skills to thoroughly assess elderly oncology patients. Nurses should consider changes in the older adult body, including the following:

- Cardiac – atherosclerotic changes, dysrhythmias, pacemaker/defibrillator
- Pulmonary – smoking history, COPD, kyphosis interfering with full lung expansion, oxygen use
- Gastrointestinal – nutritional deficits, constipation, weight changes, diabetes
- Neurological – memory, mentation, sensory changes (vision, hearing, neuropathy)
- Skin – poor turgor, easy bruising, long-term sun exposure and skin damage
- Skeletal – mobility issues, osteoporosis, joint pain
- Genitourinary – incontinence, frequent infections, BUN/creatinine changes
- Hematologic/immunologic – bone marrow function, risk for severe myelosuppression, infection risk, vaccines
- IV access – integrity of veins, access device
- Polypharmacy – patients on multiple medications for multiple comorbidities

Considering changes in the older adult body and organs will lead to more accurate assessment of the elderly oncology patient. Further study of changes in the elderly is needed to identify other assessment needs in this population. A systems approach, looking at changes due to the aging process, as well as comorbidities that can cause changes, should be considered in complete assessment of older adults.

## P28

### NATIONAL PATIENT SAFETY GOALS: DELIVERY MATTERS

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Patient Education and Safety

At Atlanta Cancer Care (ACC) patients are asked a series of National Patient Safety Goal (NPSG) questions related to suicide, safety, falls, and nutritional status when newly diagnosed with cancer, at each treatment visit, and when changing cancer treatments. Because it is known there is an increased risk for suicide in cancer patients (Du et al., 2020), a strong emphasis has been placed on the screening for suicide with each treatment visit. When addressing compliance with asking the NPSG questions, the infusion nurses gave feedback with one main concern being lack of privacy within the infusion centers, as patient are in chairs next to each other for the duration of their treatment. Some nurses expressed not being comfortable asking these questions or not thinking the patient would be truthful if others were in the vicinity. Their suggestion was to have a written form created to hand to the patient, ask the patient to complete it, and take it back to document. Prior to the move to a written form, nutrition questions were revised be consistent with the Northside hospital's questions and nationally validated recommended tools. Once the written form was implemented, several revisions occurred based on nurse feedback and recommendations, which led to a "self-report form." On the self-report form, the questions are listed allowing the patient to answer "Yes" or "No" or mark "Decline to Answer." After the patient completes the form, the nurse will immediately review the answers. If the patient answers "yes" to any of the questions, the nurse will have a more in-depth conversation with the patient and perform any necessary interventions. The nurse documents the patient's response in the Plan of Care within the electronic health record (EHR). After documentation is complete, the nurse shreds the patient's completed self-report form, as it is not a part of the patient's permanent medical record. Following implementation of the "self-report," compliance noted during monthly chart audits ranged from 96% to 99%. When asked, all nurses stated they prefer the self-report and feel strongly the patients are responding more truthfully.

## P29

### IMPROVING NURSE-PHYSICIAN COMMUNICATION THROUGH A ROLE SHADOWING PROGRAM

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#### Coordination of Care

Confidently and effectively communicating with physicians have been reported by novice nurses as one of the most difficult obstacles to overcome in practice. Advanced medical information technologies have shown to improve communication speed and accessibility between clinicians, however have not necessarily improved efficiency. Direct in-person interactions have decreased over time and has led to miscommunication and misunderstanding between nurses and physicians. The poor communication can lead to unintended harm to patients. The purpose was to describe how a 43-bed inpatient hematology oncology unit at a comprehensive urban oncology center implemented a nurse-physician role shadowing program to improve communication. A four-hour reciprocal shadowing program with hospitalists and hematology oncology nurses began over a 3-month period on the night shift. A total of 8 nurses and 5 physicians participated in the pilot in which they shadowed each other in their respective areas. Change of shift was chosen as the start time as it provided both an opportunity for both to understand roles and processes, such as handoff and sign-out between staff. Each party was able to experience the admission process, management of oncology patient caseload, onc-emergency responses, and communication preference. Pre- and post-surveys will be disseminated to participating staff. However, early feedback from those who participated have been positive. One physician stated "several physicians have mentioned that the shadowing experience allowed them to learn about aspects of the nursing workflow that they were not previously familiar with." A nurse reported "seeing firsthand how many patients the doctors are given in sign out gave me a different perspective and allowed me to be more patient when communicating with them." In addition, the nurses and physicians learned of various methods of communication available (voice activated device, pager, mobile phone, and care widget) and determined a universal standard would be beneficial for both teams. The program provided a better understanding between nurses/physicians of roles and effective communication. The plan is to expand the pilot to other units.

### P30

#### OFFERING AN ADDITIONAL TREATMENT OPTION FOR PATIENTS: HEPATIC ARTERY INFUSION PUMPS FOR CHEMOTHERAPY DELIVERY

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#### Treatment Modalities

Use of hepatic artery infusion pumps (HAIPs) for delivery of chemotherapy offers an additional treatment option for patients with metastatic colon cancer that is not widely available at most cancer care facilities. This treatment modality allows for higher localized concentrations of the drug while minimizing systemic toxicities. Oncology nurses directly support this practice by accessing the HAIPs to administer treatment, providing patient education, and assessing symptoms throughout the treatment course. The purpose of this project was to ensure nursing preparedness for managing patients with HAIPs as a new treatment modality implemented for the institution. A multidisciplinary, interdepartmental workgroup was formed to lead implementation efforts for the institution. As a nursing leadership team (NLT) of the outpatient cancer treatment unit, the Nurse Manager, Clinical Nurse Specialist, and the Nurse Education Specialist were involved in this workgroup and assisted in outlining processes, procedures, patient education, and staff education for this new practice. A cohort of eight chemotherapy-trained nurses completed an electronic education module, participated in hands-on training sessions, and demonstrated initial competence for the HAIP access procedure real-time with patients under supervision of the NLT. The cohort of trained nurses successfully demonstrated competence and have reported high levels of preparedness for this new clinical practice. From February 2022 to September 2022, six patients have had HAIPs implanted, and the specially trained nurses have accessed these HAIPs for a total of forty-three treatments. A multidisciplinary approach was instrumental to the success of this project, and nursing involvement was fundamental for the development of processes and integration of this treatment modality as a new clinical practice within the institution. Utilizing a core group of chemotherapy-trained nurses to complete the HAIP access procedure was advantageous to ensure proficiency for this relatively low-volume, highly technical skill before expanding it to additional nursing staff. Starting with the electronic education module to introduce this practice to oncology nursing staff was helpful in providing an initial overview of the new treatment modality, and subsequently participating in hands-on demonstrations to learn the process of



accessing a HAIP was beneficial prior to accessing the HAIPs real-time with patients. The presence of an NLT member at the bedside to evaluate nursing competence was key from a patient safety aspect and offered additional support to staff and patients for this new clinical practice.

### **P31 MAXIMIZING PATIENT SUCCESS: NORMALIZING SUBSTANCE USE SCREENING AND SUPPORT DURING ONCOLOGIC TREATMENT TO MAXIMIZE PATIENT OUTCOMES**

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#### **Coordination of Care**

As the shift in healthcare continues towards progress as we focus on prevention, patient education, and collaborative care, one disorder is still taboo: Substance use/misuse. Patients who are undergoing oncologic treatment are at a greater risk of premature treatment discontinuation due to the mechanism of action and necessary cellular destruction of the treatments themselves. Even as treatments advance to produce a more targeted attack on malignancies with fewer toxicities, the commonality of substance use/misuse continue to increase to create an unavoidable surge of overlap in oncologic treatment during an active and/or past substance use disorder. Therefore, it is likely that patients who experience unencumbered substance use disorders during oncologic treatment are at greater risk for premature treatment discontinuation and poor outcomes. Patient screening tools along with open communication and shared decision making are not standard practice in oncologic pre-treatment planning for substance use disorders. This presents convincing evidence for negative impact on long-term survival, achievement of treatment goals, treatment response, incidences of interruptions for ED/inpatient hospital visits, and treatment delays due to more rapid outpatient performance status decline. The purpose is to discern if recommended changes in practice are indicated in pre-treatment screening and nurse management of patients undergoing oncology treatment in the setting of substance use. Through comprehensive literature review, poor outcomes were confirmed, as were barriers to success. Absence of screening measures, negative patient perceptions, unclear expectations of patient honesty/accountability, fear of judgement, and nurse discomfort with discussion surrounding substance

use contributed to closed communication. Evidence strongly suggests that change in practice is needed. Several barriers are presented during oncology patient care in the context of active/historical substance use disorders and the impact on treatment, compliance, assessment, and evaluation. Patient screening tools to identify those with historical/current or risk of substance use are not standard practice for assessment, documentation, referral to supportive services, or pre-treatment planning. Without adaptation and advocacy for the often unspoken and invisible substance use disorders, oncology nurses are missing a growing population in dire need of support, compassion, and intervention. Balance can be achieved by oncology nurses with the use of adequate universal screenings for identification of those at risk or in active substance use, open/honest communication practices, clear expectations of accountability and compliance, treatment outcomes, and improved quality of life.

### **P32 SUPPORTING ADOLESCENTS AND YOUNG ADULTS (AYAS) WITH CANCER: UNDERSTANDING THEIR UNIQUE PSYCHOSOCIAL NEEDS**

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#### **Psychosocial Dimensions of Care**

In 2020, approximately 89,500 new cancer cases and 9,270 cancer deaths occurred in adolescents and young adults (AYAs) ages 15 to 39 years in the United States. Further, census data estimate that there are currently nearly two million cancer survivors in the US who were previously diagnosed AYAs. AYAs diagnosed with cancer often oscillate between pediatric and adult worlds though they have their own complex developmental and psychosocial needs. Numerous studies have shown that AYA cancer survivors experience depression, anxiety and post-traumatic stress disorders at a frequency greater than the general population. Advanced Practice Nurses (APNs) with AYA clinical expertise are well positioned to provide education and support to their colleagues regarding optimal AYA oncology care. The purpose was to, using a case study of an AYA cancer survivor, educate oncology nurses on the specific, developmentally unique needs of AYA cancer survivors within



the realm of psycho-social care. The framework, presented in the 2013 Institute of Medicine Identifying and Addressing the Needs of AYAs with Cancer workshop, provides a holistic approach to AYA oncology care. This framework highlights possible life disruptions experienced by AYAs with cancer, emphasizing that attempts by AYAs to establish independence from their parents, to complete school, to enter the workforce, and to start a family, if so desired, are temporarily, or permanently derailed by their cancer experience. We will ground this presentation in a real-world clinical case study of a male diagnosed at 25 years with Acute Lymphoblastic Leukemia. Through his complex medical and psychosocial history, and interactions with the health care system, we will illustrate how his concerns of future plans, career/education, family dynamics, and financial distress were addressed with age-appropriate nursing care and resources. APNs with AYA clinical expertise are well-positioned to provide nurses and others on the care team with the knowledge and tools to meet the unique psychosocial needs of AYAs with cancer. AYAs, such as the patient presented in this case study, may struggle with life stage challenges that could impact their ability to complete vital cancer-directed therapy. By recognizing those needs and identifying what supports are available through a given cancer care facility and the broader AYA cancer community (e.g., financial assistance, social work, peer connections, school/career guidance, counseling), nurses can help improve the AYAs cancer experience throughout survivorship.

### **P33** **STREAMLINING THE CLINICAL ORDERING PROCESS FOR NEXT GENERATION SEQUENCING TESTING**

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#### **Coordination of Care**

Next Generation Sequencing (NGS) is becoming an integral part of the standard of care by defining treatment options. NGS testing utilizes tumor tissue and liquid biopsy to identify actionable genetic mutations and assist in the selection of targeted therapy drugs. These results guide the interdisciplinary team with the formation of a personalized treatment plan for effective coordination of care. Due to an increase in NGS testing in the clinical setting, an efficient system is necessary for streamlining the testing process. The goal is to provide treatment options in a timely manner to facilitate initiation of treatment, minimizing a delay in care. The oncology nurse has a significant role in this process from maintaining testing kit inventory to ensuring re-

sult availability for review. The availability of test kits in the clinic allows for the convenience of same day lab draw. Managing a reference chart noting the estimated result time guides the appropriate scheduling of the follow up appointment. Once the NGS test is ordered, the nurse educates the patient on the testing process including the approximate time frame for results. This education also includes the possible contact from the NGS testing company to discuss financial aspects such as out of pocket expense and any available patient assistance. The nurse ensures completion of the requisition form obtaining all necessary signatures including patient consent. The requisition form along with any necessary supplemental documentation is then submitted to the NGS company with a copy retained for the medical record for future reference. The nurse monitors the test result status via the testing company portal or direct communication with the testing company representative. The nurse promptly addresses any concerns throughout the testing process such as a lack of sample integrity, insurance issues, letters of medical necessity, and alternate sample selection. This ensures availability of test results prior to the scheduled follow up appointment. After implementing this well-defined process, we noted an increase in both patient and care team satisfaction. This is evidenced by a decreased need for rescheduling follow up appointments thereby expediting treatment start times. As NGS testing options expand and with the increasing use of NGS testing in the clinic, this system will need to be monitored and updated as needed to continue to provide optimal patient care.

### **P34** **STANDARDIZING CHIMERIC ANTIGEN RECEPTOR T-CELL (CAR-T) OR IMMUNE EFFECTOR CELL (IEC) THERAPY ADMISSION**

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#### **Oncology Nursing Practice**

Chimeric antigen receptor T-Cell (CAR T) and Immune Effector Cell (IEC) treatments are complex admissions that require collaboration with multiple departments. Nursing is the final check point that connects all the moving pieces to ensure the patient has the required elements for a successful treatment. Barriers to the admission process encountered by nurses included having orders entered and signed on arrival to the unit, consents for the FDA or research protocols in which the patients were enrolled, and documentation that the lymphodepleting (LD) chemotherapy was administered at the outpatient facility. Research admissions

have different assigned responsibilities than FDA-approved products, which further added to confusion. Procuring these items delayed the cell administration time, impacted the patient's confidence in their care team, caused dissatisfaction of the nursing staff, and complicated shift handoff. To ensure all required steps were completed for the patient's admission, checklists were created. This included an FDA-approved admission, research admission, and report handoff checklist. The FDA approved checklist was created in collaboration with the outpatient infusion department to confirm consents and LD chemotherapy were completed. The research checklist was created in collaboration with the research team to ensure consents and order sets were entered and signed. The admission checklist was created with feedback from the inpatient nursing team to ensure all key steps were captured for an appropriate shift-to-shift report. Nurses confirmed the ease of using the checklist and the detailed steps to ensure standardization of the workflow. Nurses found it very helpful to have a clear outline of tasks or documents that were needed to ensure all required steps were completed prior to the patient's cellular infusion. The utilization of the checklist assisted nursing staff in confirming what tasks were needed to complete CAR T and IEC admissions, improved the efficiency of the required admission process, ensured all mandatory pieces were completed, and improved nurse satisfaction.

### P35

#### **CREATING A SAFE SPACE: PROTECTING ONCOLOGY PATIENTS RECEIVING CANCER TREATMENT DURING A COVID-19 INFECTION**

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##### **Coordination of Care**

Since the COVID-19 pandemic unfolded, strains on the healthcare system have been widespread and pervasive (Kumar & Dey, 2020). At times, this crisis has put the oncology patient in a particularly unique position. As oncology care is a time-sensitive endeavor, treatment delays are critical to mitigate against and understand (Du

et al., 2022). Delays or interruptions in cancer treatment can lead to progressive symptoms and worsened survival (Kumar & Dey, 2020). In addition, psychological implications for cancer patients are prominent (Dermody & Shuman, 2022). In the beginning of the pandemic, oncology patients who tested positive for COVID-19 were admitted to a respiratory isolation area in the hospital system not specialized in oncology, to provide physical separation from other vulnerable oncology patients in the cancer hospital. As a result, specialized oncologic treatments were not always available, which caused potential delays in necessary interventions. The aim of this project was to create a safe space for oncology patients, with an active COVID-19 infection, who additionally required timely oncologic treatments requiring an inpatient admission (acute leukemia, CAR T-cell administration, stem cell transplant, surgical intervention). The cancer hospital designed a 9-bed HEPA-filtrated area, with five rooms capable of being converted into ICU rooms for critically-ill patients. This area was termed the "Respiratory Isolation Flex Unit (RIFU)." Nursing leadership developed guidelines and policies around its appropriate use to ensure patient safety. Not only was a physical space required to allow for these types of admissions, but appropriate nursing specialty was vital as well. Institutional processes were developed to allow for nursing staff who were specialty trained in chemotherapy, critical care, stem cell transplant, etc. to be available for these patients. Cancer patients with a positive COVID-19 test upon admission were appropriately assigned to the RIFU and able to receive timely treatment, education, and monitoring with specialty trained nursing staff. Nursing staff had positive experiences caring for this unique patient population and collaborated to ensure a consistent "patient first" mentality. These innovative solutions allowed the cancer hospital to rise to the occasion and provide essential oncology treatments during these unprecedented times to patients with active COVID-19 infections. By preventing delays in important treatments and allowing for continued specialized care, we strived to positively impact outcomes and patient experiences.

### P36

#### **A TELEPHONE TRIAGE COLLABORATIVE: EFFORTS TO BUILD ALGORITHMS AND STREAMLINE CARE**

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#### Symptom Management and Palliative Care

Over time, telephone triage has evolved and developed into many layers as a care modality in oncology nursing. It is important for telephone triage nurses to practice within their scope and work within state and federal requirements, nursing practice acts, organizational policy, and professional best practices. Currently, many telephone triage nurses are practicing without any protocols or guidelines, and the nursing care provided within telephone triage is inconsistent. Many types of guidelines exist, but these resources are not easily translated into real-time patient care, or accessible to all. It was identified in the ONS community forum that many organizations need guidance with nursing telephone triage. We decided to create a workgroup and address these issues. The purpose of this project is to create telephone triage symptom algorithms to guide nurses through telephone triage. The hypothesis is that these symptom algorithms will improve outcomes in oncology patients by decreasing the escalation of care and repeat patient calls. An additional caveat to completing this project is to provide oncology telephone triage resources to nurses and patients with limited resources. We surveyed our current and ideal triage needs and brought back the most common symptoms patients call about. We are utilizing best practices and current evidence to create algorithms that provide questions, assessments, documentation needs, disposition, and patient education. The algorithms are peer-reviewed by the workgroup and built into a standard template format. Once the algorithms are created, we will work towards validation and approval in our current telephone triage practices. Telephone triage nurses are expected to work in an increasingly autonomous role that includes assessing and addressing symptoms, recognizing complications, escalating care, and providing education over the phone. Symptom algorithms and education will allow for a streamlined telephone triage process that highlights assessment and the disposition of patients. Without consistent symptom management, emergency room use is common in oncology patients and is often inappropriate and costly. We have utilized collaborative efforts via online meetings, in a workgroup that spans across many states and a variety of patient demographics and oncology resources and access to care. We are also creating algorithms that can be implemented in the EMR, or used on paper.

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### P37 ADOLESCENTS AND YOUNG ADULTS WITH CANCER: CLOSING THE GAP ON INPATIENT NEEDS RELATED TO FERTILITY PRESERVATION AND PSYCHOSOCIAL SUPPORT

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#### Psychosocial Dimensions of Care

A new diagnosis of cancer for anyone can be devastating. The impact on adolescent and young adult (AYA) cancer patients is often shocking and life-changing. Common feelings include anxiety, fear, and isolation. At the beginning of the diagnosis, AYA's are faced with having to make decisions related to fertility status during this emotionally and physically fragile time. Providing education, coordination, and resources directly at the bedside has proven effective in helping patients make informed decisions regarding the options for fertility preservation. This initial encounter of addressing the urgent discussion of fertility preservation also helps build a trusting relationship for psychosocial support throughout and beyond treatment. Through this relationship, patients are more likely to participate in AYA events and programming designed to decrease the feelings of loneliness and isolation commonly reported by AYA cancer patients. Addressing the urgent fertility needs of AYAs newly diagnosed with cancer is the first of many steps needed to ensure patients' health-related quality of life is prioritized before, during, and after cancer treatment.

### P38 NAVIGATION STANDARDIZATION TO PROMOTE CROSS TRAINING: BRIDGING THE GAP

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#### Coordination of Care

Nurse navigators are a woman's first contact in the surgical department for breast and GYN cancers and are essential for ensuring patient readiness for their initial visit with the oncologic surgeon. Historically, coordination of breast cancer care involved a different team of MDs, medical assistants, and nurse navigators than GYN oncology. In 2022, due to staffing challenges, we took the opportunity to address the possibility for cross-training nurse navigation staff between the two specialties. The objectives for this project were to 1) identify similarities and differences between the two specialties for navigation in order to develop a consistent and efficient workflow; 2) create a plan to facilitate cross training; and 3) implement a process for consistent communication regarding navigation, with the goal that one navigator could easily pick up where another had left off. Initial steps for this project involved bringing all department stakeholders (e.g., Director, Oncology CNS, Nurse Navigators) to review current algorithms, documentation templates, key resources/patient education, and identify potential challenges required for implementation. Since the current nurse navigators were still fairly new in their role (less than a year), it was an opportunity to re-evaluate the need for any changes in workflows and resources. At the same time a per diem position was created that would be shared between the two areas. Review of the similarities and differences in orientation, workflows, and documentation ~ provided an opportunity to identify and incorporate the best practices in both areas. In addition, the initial cross-training and feedback highlighted what worked well and identified opportunities for improvement. The use of standardized navigation intake documentation, algorithms and standing orders made it easier for navigators to work in either specialty. Communication huddles and the ability to reach out to others (e.g., navigators, MDs, physician assistants, CNS) for questions was essential during training and when encountering infrequent situations. Standardizing navigation tools and training, as well as continuous open communication, are essential for promoting successful cross training and coverage in nurse navigation.

### P39

#### CREATION OF A NURSE-DRIVEN PALLIATIVE ONCOLOGY SCREENING TOOL

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#### End of Life

During the Nurse Residency Program, new graduate nurses noticed a need for improving early introduction to palliative care services for inpatient oncology patients. Early introduction to palliative care has many positive outcomes such as reduction in symptom burden, improved communication with healthcare providers, and improved patient satisfaction. Nurses play a key role in providing palliative care and triaging available palliative resources. By creating a palliative oncology screening tool, nurses can identify patients with complex disease processes and offer earlier interventions for symptom burden and quality of life. The tool could also create open communication between providers, patients and their family about advanced directives, required care and goals of patients. Making the tool a standard of care could assist in breaking through the stigma of palliative care by providing continuous education and the most up to date information to providers, nurses and the patients. With early introduction and continuous conversations, we can reduce fear and negative connotation in this topic. Nursing staff were surveyed regarding their opinion on incorporating a palliative care screening tool into their practice and if they thought we were currently meeting the palliative care needs of cancer patients. Nurses agreed that using a screening tool to better meet the needs of patients who had a positive screen. A palliative oncology screening tool was developed and trialed on 18 patients on an inpatient oncology unit. 67% of patients would benefit from palliative intervention. Only 42% of these patients had an active palliative consult. Anecdotally, nurses noticed a need for better palliative oncology care. Resources for recognizing the needs of palliative oncology patients can better serve this patient population, increase nursing job satisfaction, and decrease emotional distress. With a standard method to capture these patients, nurses have a greater ability to impact patient symptom management and quality of life. The screening tool has prompted discussions between nursing and palliative care to determine how to best

meet the needs of patients. This initiative is innovative because many palliative care screening tools are not specific enough to triage the needs of oncology patients with metastatic disease. The final tool can appropriately discern medical and surgical oncology patients who could benefit from palliative care.

#### **P40** **IMPLEMENTING THE DISTRESS** **THERMOMETER (DT) IN INPATIENT** **ONCOLOGY PATIENTS TO PROMOTE** **REFERRALS TO THE ONCOLOGY NURSE** **NAVIGATOR**

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[Oncology Nursing Practice](#)

Distress is common with cancer diagnoses and treatment. There are no existing tools for screening inpatient oncology patients for distress in the hospital. Outpatient oncology has the National Comprehensive Cancer Network (NCCN) Distress Thermometer (DT) and problem list in place for screening distress in oncology patients. This evidence-based practice (EBP) project is to educate staff nurses in the screening using the DT and problem list to identify patients needing a referral to the Oncology Nurse Navigator (ONN) for distress intervention and support. The interventions for this EBP project included: training the inpatient nursing staff when and how to use the DT and problem list and referral process to the ONN. Forty registered nurses on the oncology unit participated in pre- and post- distress thermometer training and questionnaire surveys. Oncology patients' distress screening commenced after the training with a requirement to document screening in the electronic medical record (EMR), refer patients with distress scores  $\geq 4$  to the ONN, and log screened patients in the Distress Thermometer binder. Referred patients were followed up by the ONN based on their distress needs. With implementation of these interventions, one hundred sixty-two (162) patients were screened between May 1, 2022 and August 31, 2022. Sixty-four patients met DT criteria with a score of  $> 4$ . Eighty-nine percent of the patients were referred to the Oncology Nurse Navigator. The results of this evidence-based practice (EBP) project suggest that formal education of nurses on cancer patient distress screening increases nurses' comfort with screening and referring cancer patients on an oncology unit to the ONN for support and resources. Areas of future research include the impact of distress screening and referral on patients' outcomes and satisfaction, as well as stratification of distress by cancer type.

#### **P41** **STANDARDIZED BLOOD TRANSFUSION** **EDUCATION FOR CANCER PATIENTS**

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[Patient Education and Safety](#)

During a recent CMS visit to the Harris Health System, we identified an opportunity to improve the education provided to our patients related to the transfusion of blood products. The 3A Community of Practice determined that we could ensure our education is consistent and accurate by utilizing an evidence-based resource during our teaching. Our goal was to utilize an evidence based resource to standardize the education we provide to patients related to blood transfusion administration. By standardizing this process, we hoped to increase patient knowledge by providing consistent and thorough education. We began by disseminating a pre-test to discover which resources were currently being used to educate our patients, and we found that nurses were utilizing a wide variety of resources. The 3A Community of Practice met to identify our preferred method of education, and selected a patient handout from Lexicomp. We provided inservices to educate our staff members on the implementation of the handout. After 2 months, we surveyed staff again with a post-test to find out what percentage of nurses were currently utilizing the handout. The percentage of nurses using the Lexicomp handout to provide blood transfusion education increased from 12% to 100%. The nursing staff expressed an increase in confidence when providing patient education regarding blood transfusions. By standardizing the resources used for patient education, we can guarantee that nurses are providing high quality, evidence based information about blood transfusions to every patient. Utilizing Lexicomp ensures that the information we are providing is accurate and up to date. Patient education is crucial to keep patients involved in their care and maintain informed consent for this procedure. It also helps us provide timely interventions when patients are able to recognize signs and symptoms of adverse events such as anemia/thrombocytopenia or transfusion reactions. Using a standardized patient handout is an effective way to provide initial education and to reinforce topics learned during subsequent transfusions.

#### **P42** **QUIET DOWN PLEASE: DECREASING NOISE** **ON A HEMATOLOGY UNIT**

**Atiana Ingram-Peyton, MSN, RN, Baylor University**



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#### Oncology Nursing Practice

Over time, noise levels in hospitals have increased during the day by 26% and by 43% at night. Equipment, connections to oxygen and suction, conversations, telephones, and falling objects contribute to the noise level. Unwanted noise has many affects both physiologic and psychologic (Halm, 2016). Excessive levels can affect perception and judgement and interrupt intellectual functions that require concentration. Patient satisfaction scores demonstrated a negative trend related to quietness. Patients also voiced concerns during leadership rounds. The purpose was to improve HCAHPS quietness score from 40% in January of 2022 to 80% by April of 2022. In March of 2022 the Unit Practice Council met to determine steps for improvement. The hospital procured quiet packs; which included an eye mask, essential oil, and ear plugs. Patient and staff education were developed. Patient education provided rationale for sleep interruptions; such as timing of lab draws, administration of medications during the night, and obtaining vital signs. Staff education included talking points and door signage if the patient requested 11pm-5am quiet time. Based on feedback from patients, nursing leadership met with lab to evaluate current processes around early AM lab draws. The charge nurse now provides a list of line draw versus phlebotomy draw labs. On arrival to the unit the phlebotomist reviews the list and prioritizes draws. Additionally, lab increased number of phlebotomists. HCAHP scores improved to 88% in May 2022, 80% in June 2022, and 89% in July 2022. Incidentally, observation during leadership rounds noted a decrease in patient complaints regarding unit noise. During the baseline timeframe the phlebotomist did not have a standard order of draw. With current practice, one phlebotomist performs line draws with the nurse while the second phlebotomist performs peripheral draws. Staff also identify patients that could benefit from the quiet pack. This patient assessment prevents costly supply waste. In August the HCAHP score decreased below 80%. During this month in addition to onboarding multiple employees there was unexpected turnover in the night shift. The Unit's Practice Council will determine next steps to address this decrease. Based on feedback from hematology patients this project incorporated a variety of methods to improve patient's ability to sleep through the night. Patients are more rested and can better concentrate on improving their health.

### P43

#### NURSE SCENE INVESTIGATORS

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#### Oncology Nursing Practice

The Nurse Scene Investigators (NSI) Rounds was developed as the need for proactive attention to Nurse Sensitive Indicators was identified during 2021. During 2021 the ICU devoted resources to the development and implementation of a skin care bundle. Although this project showed great improvement in skin care, it was noted that this extra effort came at a cost; time and attention to other measurables. Pulling from properties of PLATO rounds and the ICU's experience with past successful projects the group developed NSI rounds to provide time and attention to improving patient care and reducing the risk for injury and infection while in the ICU. A combined ICU Manager and bedside RN team, provided hands-on proactive rounds during a day and night shift each week starting in December of 2021. Twice weekly rounds were conducted through March 2022 and rounding frequency was decreased to weekly for two months. For the final three months of the project, spot checks were completed two or three times per month. Brief focused education for each indicator was provided during shift huddle by the collaborating bedside RNs. NSI rounds contributed to the unit outperformance of NDNQI benchmarks for CAUTI, HAPI, and Falls. There was difficulty sustaining rounding, the same core group of nurses participated and were coming in prior to the start of their shift or on their days off to participate which showed commitment and engagement for the project but contributed to burn out for the group. In future projects steps to start weaning rounds earlier will contribute to sustainability. NSI Rounds provided an opportunity for improved patient care and outcomes. The NSI rounds focused bundle elements for CLABSI, CAUTI, HAPI and Falls. A team of 2 people would enter the patients room evaluate each element, identify and actively correct missing component, and provide just in time education to the bedside nurse. Additionally post rounds reminders and updates were sent via email.

### P44

#### ALIGNING COMPLIANCE OF CHEMOTHERAPY SECOND SIGNATURE ORDERS IN THE AMBULATORY TREATMENT CENTERS

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### Coordination of Care

The Quality Assessment and Performance Improvement (QAPI) structure is a framework for how the institution defines, measures, improves, and monitors hospital-wide high-quality care and safety. QAPI utilizes defined indicators to monitor safety, quality, hospital-associated conditions, and patient experience aligned with the institution's mission and vision. To increase compliance, the institution recommended metric guidelines as a requirement to decrease infusion treatment delays by ensuring chemotherapy second signatures are completed at the time of infusion appointment. The objectives of this quality improvement project include:

- Increase chemotherapy orders second signature compliance by 5% in the ambulatory treatment centers by August 31, 2022
- Identify barriers for delays in completing second signature for chemotherapy orders
- Collaborate with physicians, pharmacy, midlevel providers, and nursing leadership to improve awareness and compliance

The team members completed a process flow map and fish bone diagram to identify barriers contributing to chemotherapy orders missing one out of two provider signatures at the time of the infusion appointment. The team identified a major barrier that providers were not aware of the QAPI compliance metrics related to chemotherapy second signature. Education was provided to providers through a detailed PowerPoint presentation explaining the targeted metric for compliance as well as opportunities for improvement. The metrics and a tip sheet were shared with providers monthly and team members provided support if questions arose. From February 2022 to June 2022 compliance scores increased from 85% to 89% just shy of 5% goal. Team members reviewed metrics monthly and frequently met with providers to share data and identify gaps related to compliance. By improving chemotherapy orders second signature compliance we improved activities based on the delivery of safe, timely, and effective patient centered-care. Chemotherapy second signature compliance in the ambulatory treatment center is essential in providing safe and efficient patient care. Collaborating efforts with providers, pharmacy, and nursing staff enhance performance and quality improvement through adherence to safe practice and risk reduction for patients and staff.

### P45

#### "EMOTIONAL MEDICINE": THE UNSEEN

### WORK OF NURSES AS A RESULT OF THE COVID-19 PANDEMIC

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#### Psychosocial Dimensions of Care

Patients diagnosed with cancer experienced a higher risk for depression, anxiety, and post-traumatic stress disorder (PTSD) as a result of COVID-19 (Romito et al., 2020). Patients also reported feeling more socially isolated because of the pandemic (CSC, 2021). To alleviate these consequences the Cancer Support Community recommends increasing emotional support to patients, using techniques such as video calls. Due to the pandemic, patients at this institution could only have visitors under limited circumstances. The purpose of this project was to examine how nurses adapted their practice to support patients who were not allowed visitors due to COVID-19 restrictions. A semi-structured interview guide was used, asking questions about how the pandemic impacted nurses' roles caring for vulnerable patients, nursing experiences supporting patients prior to the pandemic and techniques used to support patients during the pandemic. The interviews naturally focused on the role change nurses experienced as a result of working with isolated patients, more than the specific practices they adopted. Eight infusion RNs who cared for patients during the COVID-19 pandemic were interviewed. The nurses' years of practice ranged from 3 to 34 years. The mean amount of time that nurses worked in oncology was 12.4 years. Using a phenomenological methodology, common themes were identified from interview responses and categorized into six roles, including nurses seeing themselves as a communicator, educator, family member, adaptor, caregiver and protector. See attached table for direct quotes from participants. Nurses expressed a story of personal challenge during the pandemic. During the interviews, some participants became emotional when talking about how their role changed as a caregiver and stated that they had not been given the chance to talk about their experiences during the pandemic. One participant stated how she felt that she "could cry" just talking about her experiences. These interviews provided nurses the opportunity to discuss changes in their practice that led to increased emotional support for isolated patients, and also the chance to talk about how they viewed their role as a

holistic caregiver during the pandemic. The unanticipated desire of nurses to focus these discussions on the transformation in the psychosocial aspect of their nursing care, specifically relating to their identity as a nurse, emphasizes the need for increased conversations with nurses on this topic.

#### P46

##### **ELEVATOR TO THE TOP: UPSKILLING & STANDARDIZING ROLES FOR EFFICIENCY IN AN AMBULATORY SETTING**

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##### **Professional Development**

The Ambulatory setting is changing fast, and healthcare professionals must be ready to change with it. Healthcare system redesign strategies, which encourage providers to work at the top of their licenses, are opening up opportunities for clinic assistants to engage in higher-level responsibilities, driving greater job satisfaction. With today's growing emphasis on team-based care, the role of the medical assistant is increasing in importance and a continued focus on upskilling our workforce will be necessary to impact quality patient care. A large-scale effort to redesign clinic processes to achieve improvements in performance, triggered the team to evaluate current skill mix in the clinic. With only 30% of nursing support staff certified as Medical Assistants, a goal was put in place to work toward skill advancement for this team, to shift resources and allow for an expanded scope of practice and ultimately move to a care coordination model for ambulatory nurses.

Focus Groups were held to understand the current state of tasks, barriers, and needs of the clinic support team. Themes were that a majority of time is spent doing basic rooming of patients, there was confusion about workflows and expectations, and that no professional development opportunities were available. A leadership team developed a plan for upskilling the staff which would include education support, certification, competency training and assessment, and job description transition. Evaluation of the project will focus on staff satisfaction, clinic efficiency, productivity, staff retention, and patient experience. MAs need training

and support to participate fully in new models of team-based care. A virtual education program will build the skills and confidence of the staff to practice at top of practice scope. The staff appreciated the flexibility and financial support for their development. At the end of this implementation, 100% of staff will successfully complete their certification. Anyone in the healthcare field can take advantage of upskilling. One of its primary advantages is that it typically leads to employees staying with the same employer after completing their upskilling program and can lead to staff satisfaction and retention.

#### P47

##### **PERIANAL INJURY PREVENTION IN LEUKEMIA PATIENTS**

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##### **Oncology Nursing Practice**

In adults with hematological malignancies, perianal injuries are complications that, if left untreated, can become severe infections that result in sepsis or even death. Due to an increase in perianal injuries in the patients on an acute care oncology floor, a chart review was done for patients with a hematological malignancy that also developed a rectal injury. It was found that from 2018 to 2021, there were twenty-three patients that developed rectal injuries. From these patients, twenty had acute myeloid leukemia (AML) or acute lymphoblastic leukemia (ALL), one had chronic myeloid leukemia (CML), and two had lymphoma. Out of the 23 patients, 22 had received Cytarabine. The mortality rate for the patients with a perianal injury was 39.1%. Through a literature review, it was found that Cytarabine can cause rectal inflammation, which in combination with constipation, high caffeine intake, neutropenia, and thrombocytopenia can lead to a rectal injury. Education on rectal injury prevention, bowel regimens, and rectal injury identification is encouraged for leukemia patients, their family members, and healthcare providers. The goal of this project is to increase nursing knowledge of the pathophysiology, prevention, and care of rectal injuries. A survey was done on the nurses of an acute care oncology floor to assess their knowledge of the pathophysiology, prevention, and care of rectal injuries. 20 nurses from both day and night shift were surveyed on their knowledge of rectal injuries before education was given and were surveyed again after education was disseminated. Education included predisposing factors, prevention, and identification of rectal injuries. After education was given, the nurses

were surveyed again and there was an increase in staff knowledge by 33.15%. As patients receiving Cytarabine are more at risk for rectal injuries, we hope that proper education of staff, leukemic patients, and their family members will help with the prevention and prompt identification of rectal injuries and will decrease the incidence of rectal injuries in the acute care oncology unit by 10% in 2023. It will also allow healthcare providers to intervene faster with antibiotics and/or surgical procedures to prevent a rectal injury from becoming an infection, which would then lead to a shorter length of stay and a lower mortality rate.

#### **P48**

##### **INVESTIGATIONAL STUDY DRUG FLUSHING**

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##### **Oncology Nursing Practice**

Variances in flushing investigational study drugs at the end of infusion (EOI) existed. Due to flushing differences, drug was not being consistently flushed through the line in its entirety causing a deviation in the EOI times. Additionally, this had potential impact on treatment fidelity and trial results as the entirety of drug was not being infused per protocol. The purpose was to implement flushing guidelines specific for investigational study drugs to standardize practice across the health system and accurately depict EOI stop times. Our team utilized a multidisciplinary approach when developing standardized practice, implementation and education. Partnership was established with Nursing Professional Development Specialist (NPDS), Phase 1 Clinical Trials Unit, Yale University Clinical Trials Office (CTO), Investigational Pharmacy, along with our ambulatory infusion center representation. Flushing practice throughout the patient care units was reviewed and gaps in practice were identified. Working with the team, we determined that implementation of our “Small Volume Infusion Flushing Guidelines” to all investigational study drugs would yield the most accurate result. The “Small Volume Infusion Flushing Guidelines” is a standard operating procedure that assures all drug remaining in the line is infused. Communication regarding new practice was written by pharmacy and nursing for educational purposes. Local NPDSs were charged with educating their infusion staff and pharmacy educated their department. During initial rollout, local NPDSs observed the flushing process, answered questions, and ensured compliance with the established practice. Working with our CTO partners,

it was found there was a significant decrease in deviations related to EOI stop times. Collaboration between departments improved knowledge and practice in regard to EOI stop time deviations and ensuring accuracy in documentation of our clinical trial infusion drugs. Standardizing practice allowed for assurance that drug was infused in its entirety. A decrease in clinical trial deviations was noted and standardization of practice was achieved. Standardization, implementation and education of the investigational study drug flushing required an innovative, interdisciplinary approach which included identifying the differences in practice, discussion, and identification of what best practice should be in yielding the most accurate EOI stop times. We sought to align our existing chemotherapy flushing guidelines and standards with our investigational study drug workflow.

#### **P49**

##### **ESTABLISHMENT OF AN EQUITABLE PROCESS TO OFFER AND ADMINISTER EVUSHELD FOR PREVENTION OF COVID-19**

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##### **Oncology Nursing Practice**

Evusheld (tixagevimab/cilgavimab) was approved via the Food and Drug Administration (FDA) Emergency Use Authorization (EUA) for prevention of coronavirus disease 2019 (COVID-19) in December 2021. This treatment is indicated for people who are moderately to severely immune compromised or who cannot receive COVID-19 vaccination due to allergy or contraindications. Patients eligible for this treatment were primarily within the Hematology and Transplant departments, and additionally included Rheumatology, Neurology, Dermatology, and Gastrointestinal patients. Specialty nursing teams within these departments were instrumental in care coordination and assisting to implement a process to deliver Evusheld. The purpose of this project was to develop a consistent and equitable process, utilizing specialty nurses, to offer and administer Evusheld to eligible patients. A list of eligible patients within the institution was gathered via an electronic report. Patients were randomly selected for Evusheld and placed into lists by specialty. Specialty nurses reviewed the randomized list of eligible patients routinely. Patients were sent a scripted message electronically with a video describing the treatment and asking the patient to call the healthcare team if interested in treatment. For patients without access to the online record, the

nurses called to offer the treatment. During the phone call, the nurse reviewed a script that screened the patient for eligibility and reviewed the risks and benefits of the treatment. A nurse-initiated protocol was developed to allow the nurses to initiate and schedule orders for the Evusheld treatment. The Infusion Therapy Center opened a fast-track space for Evusheld administration to accommodate the high volume of patients. As the FDA made changes to the EUA and drug supply increased, processes were adapted rapidly. Specialty nurses successfully integrated Evusheld processes into their routine day to day workload. They were highly engaged in ensuring patients were offered treatment. Through the randomized, standardized process, 4,014 doses of Evusheld were administered from January through mid-September 2022. Through development of a consistent process, including standardized scripting, a nurse-initiated protocol, and a specific location to receive Evusheld, the healthcare system was successful in delivering this treatment to a large percentage of patients. The use of nurses within the specialty practices was key to ensuring eligible patients were offered treatment in a timely and equitable manner.

## **P50** **ENHANCED SURGICAL RECOVERY (ESR)** **PROTOCOLS FOR SARCOMA PATIENTS**

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### **Oncology Nursing Practice**

Surgery is the only curative treatment for sarcoma. Enhanced Surgical Recovery (ESR) protocols are multidisciplinary pathways developed for a specific surgical specialty that help improve quality of patient care and reduce length of hospital stay. ESR protocols are shown to decrease the risk of post operative complications to optimize the patient for surgical intervention. There are limited studies for the application of ESRs in soft tissue sarcomas. The purpose was to assess the ongoing effectiveness of the ESR protocol in the sarcoma patient population and improve the quality of patient outcomes. A multidisciplinary workgroup for the sarcoma ESR protocol was formed in 2021. This workgroup reviewed evidence-based literature and developed clinical guidelines for a sarcoma ESR protocol. The ESR protocol was approved in December 2021 and implemented in August 2022. This implementation included education for the nursing staff as well as the multidisciplinary team. Using data points, ESR

protocols will be evaluated every 6 months and revised as needed. All members of the multidisciplinary team built the protocol and evaluate it for continual process improvement. Education for the staff and the patients on the sarcoma ESR protocol is critical to the success in decreasing post-operative complications in this patient population. The development and ongoing evaluation of sarcoma ESR protocols have and will continue to improve patient outcomes. ESRs optimize patients prior to surgery by decreasing hospital length of stay, improving nausea and pain control, decreasing opioid use, preventing blood clots, and optimizing diet. ESR sarcoma protocols positively impact patients and hospitals by improving quality of patient care and decreasing hospital costs.

## **P51** **DEVELOPMENT OF ONCOLOGY FLUSHING** **STANDARDS**

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### **Oncology Nursing Practice**

Chemotherapy and cancer treatments at a large urban academic hospital and cancer center have historically been administered on primary tubing. This method leaves approximately 11 mL of drug in the tubing. Drug left in tubing could lead to underdosing and questions arose about how to best administer and safely flush cancer treatment drugs. The purpose of this project was to investigate methods of administration and flushing that resulted in complete drug delivery, and to develop cancer treatment flushing standards at the institution. An interdisciplinary team of clinical nurse specialists and pharmacists worked together to evaluate if alternative methods of administration would result in better drug delivery, and to develop methods of flushing. Standards were developed for three different flushing methods as well as definitions of end of infusion time. Research protocols utilize the hospital standard or must specifically call out alternative flushing procedures. Flushing standards were added to cancer treatment administration policies, nurses who administer cancer treatments were educated, and visual posters were developed as a reference tool. New staff receive hands on education on the flushing methods as well as a practicum and skill validation. Development of the flushing standards, education, and posters has

allowed the entire interdisciplinary team to better understand the drug delivery system, ensure the complete drug dose is administered, and identify appropriate routes of flushing for newly approved cancer treatments. The project and evaluation of administration methods discovered that infusion pumps may have limitations of administering entire drug volumes, secondary gravity administration may not allow for complete drug delivery, drug administration guidelines may impact the flushing method, and that infusion pump tubing sets may not always have the same characteristics to allow for standardization of flushing by a single method. Drug requirements for specialty tubing and in-line filters may also impact the method of flushing. Utilization of the closed-system transfer device bag access site to add flush fluid is an option when tubing does not contain a flushing site and is an increasingly seen flushing method used in research protocols. This project required nursing and pharmacy to work collaboratively to develop standard practices for improved delivery of cancer treatments. Flushing procedures may vary between drugs and equipment; institutions administering cancer treatments should be aware of their pump and tubing characteristics when developing procedures to ensure complete drug delivery.

## **P52 NURSES' PERSPECTIVES ON COMPASSIONATE ACCESS TO MEDICAL CANNABIS**

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### **Symptom Management and Palliative Care**

Medical cannabis has the potential to palliate some of the most limiting side effects of cancer and cancer treatments. Research has strongly supported medical cannabis in the management of chronic pain<sup>1</sup>, nausea, vomiting, and anorexia<sup>2</sup>. There is also emerging evidence to support its use for chemotherapy induced peripheral neuropathy, and sleep disorders<sup>2</sup>. Although recreational marijuana use was legalized in California in 2016 under Proposition 64, patients continued to be denied its use while in hospitals across the state. With the recent passage of California law Senate Bill (CA SB) 305, also known as "Ryan's law," health care facilities are required to allow the use of medical cannabis on their premises for terminally ill patients. It is important to note that under Ryan's law hospitals are allowing access to medical cannabis but are not supplying it—the supply remains the patient's responsibility. With the recent passage of Ryan's Law in 2022, institutions have updated their policies and procedures to allow patients

to continue this therapy in the inpatient setting. Our goal is to measure nurses' comfortability with managing medical cannabis in the inpatient medical-surgical oncology population, as well as their perception of its impact on symptom management. Oncology clinical nurses, with the guidance of clinical nurse specialists, developed an educational module for staff that outlined the new policy and procedure for the inpatient use of medical cannabis. The module detailed patient qualifying factors, as well as the procedure for safe self-administration. The procedure involves interdisciplinary collaboration between nursing and pharmacy. Pharmacy provides the patient with a combination lock box, the patient stores and self-administers their own cannabis products, and the nurse records the administration in the electronic medical record. An anonymous post-survey was sent to all nurses who successfully implemented the new practice to measure their comfortability with inpatient cannabis use, determine their perception of the impact on patients, and identify barriers. The aim of our project is to help nurses feel comfortable implementing this practice change, and therefore increase patient comfort during their hospitalization. While medical cannabis continues to be illegal under federal law, our goal is to allow oncology patients to have access to all treatment modalities available to them while practicing under institutional guidelines and state laws.

## **P53 OUTPATIENT CAR T-CELL THERAPY: MULTIDISCIPLINARY COLLABORATION FOR ESTABLISHING A COMPLEX PROGRAM**

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### **Treatment Modalities**

Diffuse large B-cell lymphoma is a rapidly growing, progressive disease. Thirty-five percent of patients will relapse after 1st line therapy and 73% will not respond to treatment or will relapse after 2nd line therapy. Median survival with conventional treatment options is 6 months. CAR T cell therapy has provided complete responses in up to 66% of patients; the median duration of this response has not been reached. Currently, treatment of large and diffuse B cell lymphoma is presently the only CAR-t cell drug approved for outpatient use. To increase the availability of CAR T cell therapy



and enable more patients to receive this potentially lifesaving therapy a partnership was formed between a large private cancer center and a community hospital. The cancer center provides the patient with appropriate procedures: leukapheresis, transportation of lymphocytes to manufacturing, lymphodepletion chemotherapy and infusion of the prepared CAR T cells. Participants must reside near the treatment facility and participating hospital for 4 weeks. At the first sign of toxicity, the patient is admitted to the hospital's oncology unit or the intensive care unit (ICU). Multidisciplinary committees consisting of physicians, nurses, pharmacists, social workers, case managers, nurse navigators, legal department, administration and information technology (IT) at each institution were established to develop processes. The manufacturer's Cell Therapy Medical Science Liaison provided guidance as needed. Risk Evaluation and Mitigation Strategy (REMS) Certification was obtained by providers at both locations. Nursing developed policies for admission and adverse events. Flow sheets to document cytokine release syndrome and neuro toxicity were developed and entered into electronic medical records. Cancer center and hospital teams collaborated to form processes for hand-off communication between entities and to identify and expedite treatment of patients with toxicities. Nursing provided educational programs to oncology, Intensive care unit and emergency care center staff. This program is soon to be initiated. Plans are to survey all providers for the first six months to evaluate processes & policies and thus identify any issues that need to be remedied. Many patients can benefit from this innovative and potentially lifesaving therapy, but not all have access to institutions that provide it. This program will increase access to many patients. Care for these complex patients requires the coordination between multiple disciplines, and requires ongoing re-evaluation of the program.

## **P54 NURSE-DRIVEN PROTOCOLS FOR ANTIBIOTIC INITIATION IN FEBRILE NEUTROPENIA: A SYSTEMATIC REVIEW AND META-ANALYSIS**

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[Oncology Nursing Practice](#)

Neutropenic patients are immunocompromised and highly vulnerable. When they become febrile, they are at high risk for developing sepsis and other serious complications. Clinical guidelines recommend the timely initiation of broad-spectrum antibiotics. Delay in antibiotic initiation can lead to unnecessary negative consequences. Nurse-driven protocols are effective in improving the timeliness and efficiency of multiple clinical pathways in oncology care. However, the evidence for nurse-driven protocols related to antibiotic initiation in febrile neutropenia is not well understood. The purpose of this investigation was to identify and summarize evidence of the effectiveness of nurse-driven protocols related to timely antibiotic initiation in febrile neutropenia. A systematic review and meta-analysis of the literature was completed. Databases searched included NICE, ECRI Guidelines Trust, INAHTA, Cochrane Library, Medline, EMBASE, and CINAHL. Keywords included were neutropenia, neutropenic, febrile, fever, sepsis, nurse, antibiotic, protocol, and guideline. Standard scales were used to appraise the quality of each type of evidence and to perform a quantitative synthesis. Conclusions were evaluated using the GRADE system. Of the 1051 references found, 67 were retrieved and nine met inclusion criteria; eight pre/post primary studies and one systematic review. The primary studies examined the effect of implementation of nurse-driven protocols on reduction in time to antibiotic initiation for febrile neutropenia. Each study showed a statistically significant improvement in antibiotic initiation. However, there was significant heterogeneity among the interventions. A meta-analysis was performed on five of the eight primary studies directly comparing nurse-driven protocols to usual care. The effects of outliers within each study were insignificant to the meta-analysis, ultimately demonstrating the effectiveness of nurse-driven protocols for timely antibiotic initiation in febrile neutropenia. Implementing nurse-driven protocols to improve time to antibiotic initiation for febrile neutropenic patients can positively impact patient and organizational outcomes. They can also promote nurse autonomy to practice to the fullest extent of licensure and empower nurses to lead interprofessional care. As such, organizations should consider investing in implementation of such protocols in their clinical environments. Future work should evaluate the effects of implementation of such protocols on nurses and the practice environment. Given the evidence base has established the relationship between timely antibiotic initiation and reduction in sepsis, more research is needed to directly test



the effects of nurse-driven protocols on sepsis reduction as a clinical outcome.

## **P55**

### **IDENTIFYING BARRIERS IN NURSING TO IMPROVE MOBILITY OUTCOMES IN ONCOLOGY PATIENTS**

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#### **Oncology Nursing Practice**

Cancer-related fatigue, nausea, and constipation affects approximately 30-50% of oncology patients receiving chemotherapy. Research suggests that regular physical activity can help ease nausea, reduce constipation, decrease fatigue, and improve circulation. Research has also shown developing a mobility education and action plan, increase patient adherence, and therefore improve patient outcomes. There are many staff perceived or actual barriers to mobilizing patients while hospitalized. Audits of documented mobility in the EHR of hospitalized patients show limited mobilization of patients. Improving patient outcomes is an interdisciplinary goal. Promoting health outcomes through regular physical activity, contributes to the overall mission and goals of the organization. Nursing staff identified an opportunity to improve long-term patient outcomes through improving education and implementation of an activity plan while patients are hospitalized. Implementation of an activity plan in the hospital allowed the patient to review, practice, and maximize use of the interdisciplinary team, such as the nutritionist, the physical therapist, nursing, and the physicians. The goal was to identify barriers to mobility by staff, and develop a roadmap to promote mobility through education and adherence, while providing a safe environment to test tolerance. A survey was conducted to identify perceived barriers to mobilization. Based on survey results, education was performed to all unit staff identifying the importance and benefits of mobilization while patients are hospitalized, as well as development of a roadmap for staff and patients to follow. A chart review will be performed 8 weeks post education to identify any improvement in documented mobilization for hospitalized patients in comparison to the 30 days prior to the intervention. Barriers identi-

fied by staff included lack of patient participation, patient requests to sleep, physical therapist consultation, medical instability, as well staffing. Development of the exercise roadmap involved interdisciplinary consultation, as well as continued feedback from patients.

## **P56**

### **PROVIDER TO NURSE HANDOFF TOOL: IMPROVING TEAM COMMUNICATION**

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#### **Oncology Nursing Practice**

Ineffective communication can often go undiscovered in healthcare. This can cause serious effects on the health and safety of patients, and can jeopardize patient and nurse satisfaction (Hitawala et al., 2022). Nurses in an outpatient oncology unit expressed the need to improve communication between providers and nurses on the day of treatment. Often times treatment plans change during the provider/patient office visit and this doesn't properly get communicated to the treating nurse. Time is spent clarifying the plan which interrupts the infusion nurses' workflow, and ultimately increases patient wait time. The purpose of this project was to improve the communication of the healthcare team which will decrease patient wait time, provide safe care and enhance patient and nurse satisfaction. A group of infusion nurses, nursing leadership and a quality and safety coordinator created a working group to help improve communication. A hand off tool was created and presented to the Medical Director. The elements of the tool included: clearance for treatment, change in treatment plan, and follow up plan. Two providers piloted use of the tool by filling it out during the patient visit they had prior to a treatment visit. Our Ambulatory Care Associates (ACAs) are charged with giving the provider the handoff tool when rooming the patient for their visit. The provider then hands the completed tool to the patient to give to their treating nurse in the infusion pod. Surveys were distributed. 100% of providers did not feel there were delays in relaying information regarding patient care. 85% of nurses felt there were delays in care relaying information regarding patient care. 100% of nurses felt a hand off tool would enhance communication and decrease wait times. The goal is to have all 21 providers complete the handoff tool when they see a patient prior to a treatment visit. Challenges are current staffing issues with

our ACAs (Ambulatory Care Associates) and consistent distribution of the tool. The group has discussed that having a paper tool is not ideal and would like the next step to be developing a digital tool that can be used for this handoff. A group of nurses coming together to help solve an issue that they felt was affecting patient care created cohesion and excitement to see improvement.

## **P57**

### **STANDARDIZED CHLORHEXIDINE GLUCONATE BATHING EDUCATION FOR PATIENTS WITH CENTRAL LINES**

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#### **Patient Education and Safety**

The Ben Taub Hospital 3A medical-surgical/oncology unit has a high number of patients with central lines. All patients with central lines are encouraged to bathe daily with chlorhexidine gluconate (CHG) to decrease the likelihood of developing a central line associated bloodstream infection (CLABSI). The 3A Community of Practice, recognized an inconsistency related to patient education for CHG bathing. Our goal was to utilize evidence based resources to standardize the education we provide to patients related to CHG bathing. By standardizing this process, we hoped to increase patient knowledge in regards to CHG bathing. We began by disseminating a pre-test to discover which resources were currently being used to educate our patients, and we found that nurses were utilizing a wide variety of resources. The 3A Community of Practice met to identify our preferred method of education, and selected a patient handout created by the SHIELD project. During shift change huddles, we educated our staff members on the implementation of the handout. After 2 months, we surveyed staff again with a post-test to find out what percentage of nurses were currently utilizing the handout. The percentage of nurses using the SHIELD handout to provide blood transfusion education increased from 6% to 96%. The nursing staff expressed an increase in confidence when providing patient education regarding CHG bathing. By standardizing the resources used for patient education, we can guarantee that nurses are providing high quality, evidence based information about CHG bathing to every patient with a central line. Patient education is crucial to keep patients involved in their care. When our patients understand the how and why of CHG bathing we can decrease the likelihood of CLABSIs in our patient population. This also helps us avoid other unfavorable outcomes such as sepsis, extended hospital stays, and increased mortality

rates. Recognizing the need of the unique patient population, the team created an evidenced based education tool to standardize patient education.

## **P58**

### **ORAL CRYOTHERAPY TO REDUCE MUCOSITIS IN BREAST CANCER PATIENTS RECEIVING INTRAVENOUS PUSH, DOSE-DENSE DOXORUBICIN**

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#### **Oncology Nursing Practice**

Oral mucositis occurs in approximately 20-40% of patients receiving standard chemotherapy (1). Possible adverse effects associated with mucositis may include dehydration, pain, malnutrition and infection (2). These adverse effects may potentially lead to decreased adherence to chemotherapy. ONS (Oncology Nursing Society) recommendation for practice includes cryotherapy for patients receiving rapid infusions of agents that cause high incidence of mucositis (3). Limited literature exists regarding specific use of cryotherapy with doxorubicin intravenous push. Between August 2020 and February 2021, eight of twelve (67%) breast patients self-reported any incidence of mucositis related to receiving intravenous push doxorubicin. An evidence-based practice project was initiated to evaluate cryotherapy as an intervention to prevent mucositis due to intravenous push doxorubicin administration. Cryotherapy is an easily accessed, cost-effective, nurse-driven intervention that may improve or lessen severity of mucositis in our breast cancer patients. Breast cancer patients receiving dose dense doxorubicin were offered ice chips to assist in reduction of mucositis. The convenience sample included breast cancer patients of five specific physicians at the author's site. Patients were given ice chips ten minutes prior to doxorubicin, during intravenous push of doxorubicin, and ten minutes post doxorubicin administration. Patients were monitored at subsequent treatments (three cycles) for self-reported mucositis. During a one-year timeframe (April 2021 to April 2022), twenty-one breast cancer patients receiving intravenous push doxorubicin agreed to the oral cryotherapy intervention. Patients were asked to self-report mucositis after each chemotherapy cycle for a total of three cycles. No incidence of mucositis was

reported in forty-nine (78%) of the doxorubicin intravenous push cycles. In fourteen cycles (22%), mucositis was reported by patients, however most cases were reported as small mouth sores that resolved without intervention. Cryotherapy has been utilized with other chemotherapy treatments to reduce mucositis, but there is limited evidence to support use with intravenous push doxorubicin. Utilization of cryotherapy with doxorubicin intravenous push reduced the incidence of mucositis. Cryotherapy can be a nurse driven and cost-effective intervention to aid in reduction of mucositis and positively impact the quality of life for breast cancer patients during their treatment.

## **P59 CROSS-CULTURAL ADAPTATION AND VALIDATION OF THE HAND-FOOT SYNDROME INSTRUMENT 14 (HFS-14)**

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### **Oncology Nursing Practice**

Some antineoplastic drugs result in the appearance of important dermatological toxicities, which can negatively impact the quality of life (QoL) of patients, among them, the hand-foot syndrome (HFS) and its variants, stand out. The “Hand-foot syndrome-14” (HFS-14) is a specific questionnaire to assess the QoL of patients with HFS. Culturally adapt the HFS-14 to Brazilian Portuguese and assess its psychometric qualities. **METHOD:** Methodological and quantitative study, divided into two stages. Stage 1: cross-cultural adaptation, which consisted of translating and back-translating from English to Portuguese and back to English; and the validation of the instrument’s content in Portuguese using the Delphi technique. Stage 2: psychometric validation, with the application of the questionnaire to the population selected for the study. The reliability of the instrument was evaluated by calculating the composite reliability and McDonald’s omega coefficient ( $\omega$ ) and the stability of the extracted factor was evaluated using the H index. For convergent validation, the SKINDEX-16 instrument was used, being applied the Pearson correlation index and the Spearman correlation test. **RESULTS:** Content validity was obtained through the agreement of the expert committee with an overall content validity index (CVI) of 0.92, considering all questions and all types of equivalence evaluated. The questionnaire was applied to a population of 110 patients, with a predominance of males (71%) and the presence of comorbidities in

52% of the sample. As for the tumor site, 37.27% were breast, 17.27% colorectal and 13.64% genitourinary. As for clinical staging, 55% were advanced; as for treatment, 82% received cytotoxic chemotherapy and 18% received tyrosine kinase inhibitors. For 66.36% of the respondents, feet and hands were affected by the syndrome, with 53.64% complaining of pain. Regarding the guidance received for the management of HFS, 91% of the participants stated that they had received specific education for the management of this toxicity, but only 38% adhered to the recommendations for preventive care during treatment. The results showed that all items in the questionnaire had adequate factor loadings and composite reliability values above 0.80, thus, it can be said that the HFS-14 presented good reliability and good replicability of the factor structure. **Conclusion:** The Brazilian version of the HFS-14 instrument proved to be valid and reliable for reproducibility. Most of the studied sample presented symptoms in both hands and feet, with associated pain complaints.

## **P60 WIN WIN WIN! FEWER SIDE EFFECTS, SHORTER TREATMENT AND CLOSER TO HOME**

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### **Treatment Modalities**

External beam radiation treatment for clinically localized prostate cancer requires daily trips to the treatment center for six weeks, which can create a burden for patients that have transportation challenges and/or when daily treatment greatly impacts work or family responsibilities. High dose rate (HDR) brachytherapy combined with external beam radiation for patients with this diagnosis reduces the treatment time frame by two weeks and has been shown to be an effective treatment option with fewer side effects. HDR Brachytherapy treatment for prostate cancer involves assessing for appropriateness of treatment, patient education, and on the day of treatment the surgical placement of needles under anesthesia, anesthesia recovery, simulation, planning time, treatment, removal of needles and a voiding trial before discharge. The patient is transferred between multiple departments and is cared for by multiple disciplines. The complexity of treatment can be a barrier to offering this at community hospitals, but our organization decided that it was an

important part of a complete cancer care and planned to offer this option to our patients. Our goal was to bring the option of safe, effective HDR brachytherapy for prostate cancer patients to our cancer center. An interdisciplinary team headed by an expert in project management worked for a year to plan the workflow, determine equipment needs and purchase equipment, train staff, develop protocols and create patient education. Barriers that needed to be overcome were balancing the need to reduce transfers between departments with providing care in the optimal environment, availability of equipment during a time of supply challenges, educating the multiple teams involved and creating communication tools for disciplines that do not usually work together. This treatment option has been safely and effectively administered to multiple patients. Careful planning has resulted in few adjustments needed to the process and workflow. Patients have expressed appreciation for having decreased treatment days and impact on their day-to-day life. While the complexity of a treatment option must be considered, particularly in a community hospital environment, careful planning and teamwork can result in a win for the patient. Bringing complex treatments closer to a patient's home reduces the impact of cancer treatment and can improve their quality of life.

#### **P61 IMPLEMENTATION OF A PRESSURE INJURY EDUCATION PROGRAM FOR NURSING STAFF IN A MEDICAL-SURGICAL ONCOLOGY STEP-DOWN UNIT**

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##### **Oncology Nursing Practice**

Pressure injuries (PI) affect 2.5 million patients in the acute care setting, increasing pain, suffering, and psychological distress. Oncology patients are at increased risk for PI development due to advanced age, impaired mobility, and altered nutrition. With the cost of caring for one patient with a PI as high as \$70,000 and their designation as a 'never event' by the Center for Medicaid and Medicare Services, institutions must take action in prevention. In one National Cancer Institute (NCI) designated comprehensive cancer center, a rising number of PIs and inconsistent pressure injury prevention (PIP) interventions at the bedside were identified. A literature review was completed, revealing that education improved nurses' knowledge and attitudes toward PI and PIP. An evidence-based quality improvement project was developed, with the

purpose of increasing nurses' knowledge and attitude toward PIs and PIP interventions. Objectives of the project included developing and implementing an educational program based on PIs and PIP interventions, and evaluating knowledge and attitude pre-and post-intervention. A didactic educational session on enhancing knowledge of PI and PIP interventions was created. Fourteen in-person, thirty-minute sessions were offered for all nurses during day and night shifts. Knowledge and attitude scores pre-and post-education sessions were evaluated using questions obtained from the Pieper-Zulkowski Pressure Ulcer Knowledge Test and Staff Attitude Scale. A Wilcoxon Signed-Rank test was used to compare the knowledge and attitude scores before and after implementation. No statistically significant differences were found when comparing knowledge and attitude pre- and post-intervention ( $z=1.96$ ,  $p=0.05$ ;  $Z=1.35$ ,  $p=1.08$ , respectively). Despite no statistical significance, there was a 60% improvement in overall knowledge and attitude scores. Education is an easy way to improve nurses' knowledge, but this should be combined with other interventions to make a more significant impact.

#### **P62 NEW DRUG, OLD PROBLEMS: DEVELOPMENT OF AN EDUCATION PLAN FOR PATIENTS AND NURSES FOR NEW TO MARKET DRUG, BELZUTIFAN, FOR MANAGEMENT OF VON-HIPPEL LINDAU TUMORS**

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[Patient Education and Safety](#)

Although there is limited information available when a drug is first introduced to the pharmaceutical market, patients must have accurate and concise information and education on drugs prescribed to them that they can easily understand. Patient education facilitates medication adherence and reporting of side effects to clinicians. Belzutifan is a first-in-class drug, a hypoxia-inducible factor-2 alpha inhibitor, for the treatment of hemangioblastoma (a central nervous system-specific manifestation) in patients with Von-Hippel Lindau (VHL). Belzutifan is also indicated for VHL-related renal cell carcinoma and VHL-related pancreatic neuroendocrine tumors. Belzutifan received food and drug administration (FDA) approval in August of 2021. The purpose of this project was to develop a patient education handout as a resource that patients can refer to after their clinic visit. Centralizing the availability of

an education resource allows for specialists caring for patients with VHL-disease to access and distribute this handout to patients seen in their respective sub-specialty clinics (neuro-oncology, urology, endocrinology, ophthalmology, etc.). The patient education handout was developed based on the FDA drug label. Health literacy training was utilized to create a handout in simple and plain language that is readily understood by patients. Due to the rarity and complexity of care VHL patients require, it is essential to share knowledge of VHL, its associated symptoms, and available treatments beyond the primary care team. The primary oncology care team is rarely the only set of providers who see these patients in the clinic. Other team members triage incoming calls with changes in symptoms, clarification questions, or scheduling needs. Dissemination of the educational resource and additional disease-specific information occurred through the department nursing seminar. For patient understanding, the format of the educational handout is a reference that patients can take home to refer back to as an adjunct to in-clinic teaching. Through the electronic medical record messaging system, this document can also be shared through a secure message to patients to access on their desktop or mobile device. With increased patient handout information, patients receiving belzutifan education will have an understanding of the information presented to facilitate adherence to their prescribed medication regimen and reporting of symptoms or side effects. With this increased education, staff will also have the knowledge to triage, monitor, and report patient symptoms that may require additional medical intervention during belzutifan therapy.

## P63

### STAT RN IN THE AMBULATORY ONCOLOGY SETTING

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#### Oncology Nursing Practice

STAT nurses are commonly used in the inpatient setting by nursing staff to support acute episodic nursing care. The STAT RN provides a high level of clinical expertise and critical thinking while supporting nursing staff and responding to emergent situations. In the ambulatory cancer care setting, this role has not been established despite higher patient acuities, higher risk regimens, and increasing numbers of oncologic emergencies as therapies previously given inpatient transi-

tion to the outpatient setting. Early identification and nursing interventions are key in supporting complex oncology patients and ensuring best outcomes. The purpose was to develop a STAT RN role in the ambulatory setting of a large growing NCI designated ambulatory cancer center. A workgroup was formed consisting of two experienced front line Infusion RNs, an advanced practice oncology nurse educator, nursing operation leaders, advanced practice providers and clinical experts from the rapid response team. Required and preferred qualifications were identified through the development of a job description which prioritized strong clinical skills and specialized certifications. A skill checklist was developed referencing skills and competencies practiced in the organization's Acute Clinical Evaluation (ACE) clinic. Development of initial training also included Oncology Nursing Society (ONS) coursework for oncologic emergencies, 1:1 shadow with the rapid response team, and optional critical care courses. Utilizing the concept of a "Day in the Life," roles and responsibilities encompassed being a readily accessible resource through active rounding and knowledge of scheduled high-risk regimens and patients. Common emergent situations were identified in which the STAT nurse may act independently with the goal of reducing rapid response calls. Adaptation of the STAT RN role to the ambulatory cancer care setting can ensure appropriate clinical resource utilization and improve patient outcomes. The STAT nurse role will be implemented in anticipation of the increasing patient volumes with the expansion of our ambulatory cancer care clinic. Through query of electronic documentation, evaluation will include tracking utilization of the STAT nurse role using reason for visit, disposition and time spent.

## P64

### "AM I PREPARED?": CONTRAST MEDIA REACTION MANAGEMENT IN RADIATION ONCOLOGY

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#### Coordination of Care

Intravenous (IV) contrast used in computed tomography (CT) simulation is used to determine the exact location, shape, and size of the tumor to be treated. This



procedure was started in the radiation oncology area and nurses had questions regarding the management of potential IV contrast reactions and how to assess, intervene, and escalate care. The radiation oncology nursing team collaborated with nursing staff, radiation therapists, advanced practice providers (APP), and providers to ensure staff felt prepared and knowledgeable in the event of an IV contrast reaction. The purpose was as follows:

- Understand acute contrast reactions by utilizing the institutional algorithm in the adult patient
- Increase knowledge related to IV contrast media reactions in adults
- Identify mild, moderate, and severe reactions to IV contrast media
- Collaborate with multiple team members (radiation therapists, medical assistants, registered nurses, APPs, and physicians) providing care to patients receiving IV contrast media.

The team developed a learning series which were broken down into four interactive virtual presentations with an opportunity for participant questions. The learning series topics included 1) pre-screening and potential prophylactic care for adult patients receiving IV contrast media 2) identification and treatment for mild reactions to IV contrast media 3) identification and treatment for moderate reactions to IV contrast media and 4) identification and treatment for severe reactions to IV contrast media, the role of escalating care, and emergency support provided by team members. Pre learning series survey data showed 50% of staff felt comfortable with their knowledge related to acute contrast reactions and only 25% understanding in the areas of prescreening and prophylactic care. Post learning series survey data showed an increase of participants knowledge level from 50% to 100% and from 25% to 75% understanding of prescreening and prophylactic care. To sustain knowledge, a post learning series survey was given at 30 and 60 days in which knowledge and understanding of participants was maintained at least 85%. Team members continue to monitor nursing staff knowledge, institutional algorithms, and patient safety quarterly or more frequently if needed. Preparation and knowledge related to potential adverse events following IV contrast CT simulation is imperative to the radiation oncology team. Continued emergency preparedness and effective nursing knowledge is imperative to keep our patients safe.

## P65

### WHAT IS THE CURRENT UPDATE ON ADVANCED METASTATIC ADENOID CYSTIC

### CARCINOMA (ACC) PATIENTS RECEIVING SYSTEMIC THERAPY IN THE NEW ERA OF MOLECULAR PROFILING?

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#### Patient Education and Safety

Adenoid cystic carcinoma is an uncommon type of adenocarcinoma that begins typically in glandular tissues. It generally arises from the major and minor salivary glands of the head and neck anatomy. Advanced ACC may cause pain, nerve paralysis as often it spreads along the nerves. It can metastasize to distant sites of lung, other organs, and lymph nodes in about 5% to 10% of cases. The cause of ACC is currently not known, and it is not known to have a hereditary component. The most common treatment for ACC is complete surgical resection, with or without post-operative radiotherapy, while conventional radiotherapy alone and chemotherapy are commonly used in unresectable or metastatic disease. The first line of treatment options includes local therapies such as surgery or radiation modalities that are generally effective in controlling the disease. I seek to explore therapeutic systemic therapy options that are currently available and efficacious in the management of ACC and their nursing considerations. Oncology nurses play a huge role in educating and advocating for the patients receiving therapies to improve quality of life and overall survival. It is imperative to educate nurses in enhancing our understanding of the complex disease and better assist the patients receiving treatment in the world of individualized and personalized medicine. The learner will be able to identify the names of the systemic therapy agents currently utilized for advanced ACC and discuss anticipatory and manageable side effects. I performed current literature search using online engine such as PubMed and MEDLINE on the topic of ACC systemic treatment, side effect management, adverse events and the key words of oncology nurses. After the data analysis, it was clear that there was a limited educational information published for outpatient oncology nurses to educate themselves on the topic. The outpatient oncology nurses will seek additional literature and information in educating advanced ACC patients on systemic therapy agents and any potential adverse events management. Oncology nurses need to be cognizant of currently available, effective systemic therapy agents used to treat ACC patients. As an increased number of patients are receiving novel systemic therapy agents, oncology nurses need to engage in collaborative groups to educate and improve management of their adverse events.

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### WORDS DON'T SPEAK LOUDER THAN A HANDOFF

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#### Oncology Nursing Practice

An efficient and comprehensive patient hand-off is an essential part of providing safe patient care for cancer patients receiving radiation therapy. In 2017, the Joint Commission released their position statement on proper hand-off for health professionals, recognizing the harm that can be done to patients when communication is not provided in a timely manner, is incorrect, or partial information is given to a receiving team. The Joint Commission also suggests specific actions that should be included in a proper hand-off. There are few formal studies examining standardized handoff communication in the outpatient setting and, even less that includes patient and caregiver input as part of the handoff. The radiation oncology department at a large health system provides care to patients at five outpatients sites, including transfers from inpatient oncology units. Patients frequently travel to these different sites for treatment. Therefore, hand-off communication is essential internally within the radiation oncology department, as well as from inpatient units. A core group from each of the five health system sites met monthly to discuss and develop the essential elements of a handoff communication tool. To incorporate the voice of the patient, the group agreed it was essential for the tool to capture patient and caregiver preferences. Following its drafting, education on how to use the tool as a handoff communication was provided before implementation. Post implementation, the core group continued to meet monthly and adjust the tool based on clinical relevance. Since the initiation of the handoff tool, there have been fewer incidences of poor patient transfer and staff have reported increased satisfaction with the transfer process. A standardized handoff tool improves communication among staff and patients as well as their caregivers to promote safety in the outpatient setting. While the tool is currently on paper, efforts are underway to incorporate this tool into the electronic medical record. Research is needed to fur-

ther study the essential components for a standardized handoff tool in outpatient areas, especially for oncology patients.

## P67

### CENTRALIZED INFUSION ONBOARDING: GETTING ON THE SAME PAGE

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#### Oncology Nursing Practice

Oncology nursing is a continually changing and growing specialty with increased demands for staffing in response to science advancements and acuity of patient care. Orientation of new staff traditionally has been delivered by individual preceptors to provide highly specialized oncology skill and procedure training. This system has resulted in variations in practice and contributed to preceptor exhaustion and declining morale. Centralized onboarding is an effective strategy to standardize foundational oncology knowledge, promote an environment for acquisition of skills, and mitigate preceptor burnout. Furthermore, in a rapidly growing ambulatory oncology setting, efficiency and quality of nurse education is optimized. The purpose was to establish a centralized onboarding curriculum for the Infusion nurse role at a large NCI designated ambulatory oncology center across five sites. In alignment with the organization's work force strategic goals and growth, a team consisting of Infusion department educators and an advanced practice nurse created a bi-monthly centralized onboarding curriculum. The team assessed priority skills for the Infusion nursing role, including skills that were time intensive, consisted of complex steps, and required repetition for competency. Content included hazardous drug Personal Protective Equipment utilization, chemotherapy spill management, central line care, chemotherapy and blood administration, and pump training. Education delivery was in the form of in-person classes taught by Infusion department educators with a basic simulation room that included equipment and supplies commonly used in infusion practice. To create a comprehensive onboarding program, required new employee computer modules, Electronic Health Record courses, and foundational oncology classes were also included in the curriculum. Infusion Centralized Onboarding provides upstream support

for frontline preceptors and a framework for nursing practice standardization. It promotes a robust onboarding experience for skill acquisition and an opportunity for early identification when skill remediation is needed. A survey will be performed to assess for job satisfaction across the roles of new nurse, preceptor, and nurse educator. Impact on efficiency, skills acquisition, length of orientation, and priority skills taught will also be re-assessed.

## **P68 FREQUENCY OF VITAL SIGN MONITORING IN TAXOL/TAXOTERE AND TRODELVY TREATMENT PLANS**

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[Oncology Nursing Practice](#)

In the current Taxol/Taxotere and Trodelvy treatment plans, vital signs monitoring are ordered to be completed every 30 minutes due to the concern of hypersensitivity and possible reactions. For 4 to 6 hour infusions this requires nurses to complete 7 to 11 sets of vitals and has put a strain on nursing. At UCSD KOP breast infusion center, in most of the reaction cases, the symptoms were self-reported and not identified through vital signs. A pilot of changing vital signs monitoring from every 30 minutes to as needed was initiated to investigate the best practice of using fewer sets of vital signs coupled with thoughtful physiologic assessment. The strategies and implementation plan included:

- Collaborating with oncologists and pharmacists to ensure appropriate vital sign policy is in place
- Enhanced nursing education on infusion reaction management and patient monitoring
- Monthly data analysis including nursing's overtime and reaction rate
- Ongoing feedback from nursing staff regarding the safety and effectiveness of the new practice

In a survey conducted among KOP staff before pilot, 90% of the nurses responded that obtaining vital signs every thirty minutes is not efficient. A post-survey conducted after 3 months of implementing the new practice resulted in that 100% of staff prefer the new practice. The reaction rate before we implemented this practice was 3.3% (for five months period). The reaction rate after implementation was 2.1%. Changing vital signs monitoring from every 30 min to as needed did not seem to change the reaction rate during this time period. Discussion is as follows:

- Remove every 30 minutes vital sign monitoring requirement. Nurses are required to check patients regularly.

- Change vital sign frequency to as needed. Require nurses to stay with patients for the first 10-15 minutes of the first two infusion since the reaction mostly occurs on the first two infusions.
- Educate patients on self-assessment of any symptoms and the use of chair alarms.

## **P69 PAIN, DEPRESSION, AND IMPAIRED FUNCTIONAL STATUS PREDICT MALNUTRITION IN OLDER WOMEN WHO ARE DIAGNOSED WITH BREAST CANCER**

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[Symptom Management and Palliative Care](#)

Approximately 85% of older aged people receiving chemotherapy are considered malnourished. Adequate nutritional status is importation to support health during cancer care and treatment. The significance of this study was to predict malnutrition when comorbidities such as pain, functional status and depression exist. Intervening with nutritional support before serious weight loss can affect cancer treatment. This project evaluated how comorbid conditions impact nutritional status of older women diagnosed with breast cancer. The aims were to evaluate the relationships among pain, functional status, depression, and malnutrition and to determine if pain, Activities of Daily Living (ADL) and Geriatric Depression Scale (GDS) scores predict scores on the Mini Nutritional Assessment (MNA). This multivariant, cross-sectional study included women aged 70 years or older who had been diagnosed with any stage of breast cancer and were receiving any type of treatment. The ADL, GDS, pain numeric rating scale (NRS) and the MNA were used and were part of the Comprehensive Geriatric Assessment (CGA). The CGA is conducted on women diagnosed with breast cancer while receiving cancer treatment and surveillance at a Midwest academic medical center. Descriptive statistics were calculated to describe the sample. Pearson's Product Moment Correlations were used to assess the relationship of the variables. Multivariate regression analysis was used to determine if pain, ADL, and GDS scores predict nutritional status. Mean age was 78 years (N=72) and most were diagnosed with infiltrating ductal carcinoma 72.2% (56), 22.2% (16) had metastatic disease and 59.7% (43) underwent lumpectomy. Mean scores on the ADL was 5.5, GDS 2.2, pain 1.1 and MNA

score was 12.2. MNA score was related to pain ( $p=.00$ ), ADL ( $p=.00$ ), and GDS ( $p=.01$ ). Pain and ADL scores predict nutritional status. Patients who experience pain and have impaired functional status should also be screened for malnutrition. Proactive screening prior to clinical signs and symptoms is important to the health of older people undergoing cancer treatment and care. Combining geriatric care with oncology management provides a more comprehensive approach to caring for the older person who is diagnosed with cancer.

## P70

### CLINICAL TRIAL INFUSION NURSE LIAISON

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#### Coordination of Care

Clinical trials are the backbone of cancer research. A large cancer institute in the Northeastern US working towards National Cancer Institute (NCI) designation has a robust, ever-growing population of patients enrolled in clinical trials. A gap in communication has been identified between the clinical trial and research teams. There is an increased need for improved collaboration between the Clinical Trials Office (CTO) and infusion nurses, as well as a standardized orientation process and education for clinical trial infusion nurses. Implementation of this role aims to decrease deviations from study protocols, increase patient safety, improve communication between the CTO and the infusion team administering clinical trial medications, and increase self-reported Research Infusion Nurse (RIN) satisfaction. The model chosen creates a Clinical Trial Infusion Nurse Liaison (CTINL) with both clinical trial and infusion knowledge as a point person for all infusion nurses who administer investigational medications. The CTILN will lead the orientation process for new hires in order to establish a firm foundation in clinical trial infusion education. The CTINL will bridge the gap between the CTO and Infusion Center by acting as a liaison between teams. The liaison empowers infusion nurses to feel confident and competent in the care they provide to research participants, thus increasing job satisfaction and patient safety. The intervention is as follows:

- Develop a Clinical Trial Infusion Nurse orientation.
- Collaborate with the CTO reviewing and finalizing Beacon Plan building, providing infusion nurse input.
- Create an online resource with up-to-date study

protocols via Complion highlighting imperative nursing interventions.

Evaluation involves tracking the number of protocol deviations with CTO and conducting surveys of self-reported RIN satisfaction. Informal evaluation from infusion team has been positive, citing greater support and communication while also feeling heard when an issue arises. The expectation of implementing this project is increased self-reported job satisfaction of the RIN and therefore increasing retention rates. Another expected outcome is a decrease in deviations from study protocols. Data will be tracked through the CTO to measure this outcome. The model allows a few passionate experts to make a big difference on patient care and support the clinical teams.

## P71

### INNOVATIVE NATIONAL COLLABORATIVE FORUM: RENEWED FOCUS

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#### Coordination of Care

A large academic institution in the southwest United States established a cancer network to extend the reach of the mission and vision of the institution through strategic partnerships. An innovative Nurse Navigation Collaborative Forum was established, and accelerated learning occurred via unique national virtual collaboration. The nursing leaders of the cancer network and the partner organizations recognized the opportunity to establish a Nurse Navigation Collaborative Forum to share best practices and improve patient outcomes. The team had formed prior to the COVID-19 pandemic and experienced an extended pause as each of the six partner institutions focused internally on infection control precautions. As the pandemic stabilized, the group returned to its former meeting pattern however, the energy and determination was decidedly different. Team members reported a rejuvenated desire to take things to the next level and move forward after the months of isolation and individual practice. The team quickly recalibrated and re-focused. They moved

through Tuckman's (1965) model of group formation and functioned in the new virtual environment with maturity and an enhanced appreciation of the benefits of open discussion and sharing. Agenda content was driven by partner interest and need. Roles and responsibilities were discussed, unique program utilization was highlighted including both the outcomes and opportunities, and dashboard metrics were reviewed individually and developed collectively. Moving forward these metric outcomes will be tracked and trended monthly to further enhance the efficiency at each site. The team has made the choice to embrace renewal and choose collaboration with the vision of fostering innovation in the space of oncology nurse navigation. Other industries, such as Spotify are using the same strategy across their organization and have found, "collaborative learning creates larger knowledge networks, reduces bottle necks & promotes aligned autonomy throughout the organization." Given the complexity of the current healthcare environment it is a strategy than can measurably enhance efficacy and value. The sharing that began organically within the team has grown to produce significant positive outcomes. The Nurse Navigation Collaborative Forum was created from a network partnership however, strong collaborative alliances can be formed within a department, across an institution, or within a professional organization leading to meaningful improvement in the continuity of patient care through accelerated learning.

## **P72**

### **RADIATION ONCOLOGY: IMPROVING RADIATION ONCOLOGY NURSING CARE THROUGH EMR IMPLEMENTATION**

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#### **Coordination of Care**

Our project has aligned our procedural area with the electronic charting that is practiced throughout our health system. With the implementation of this new system, our care documentation is now visible to all the disciplines outside of radiation oncology. Radiation departments have historically used systems unique to

radiation oncology and separate from the rest of the hospital system (ex. ARIA, Mosaic). The problem with these charting systems is that they do not sync well with EPIC, thus leaving Radiation Oncology documentation inaccessible to those outside of the department. Our departure from ARIA overcame this significant hurdle. This provides improved continuity of care for our patients; it also allows us to chart per UCSD Health organizational OR standards. We seized this opportunity as a chance to improve the quality, safety and efficiency of the care we are giving our patients. Our team transitioned from a paper sedation record and Instrument Log to an entirely electronic sedation record. We have had tremendous support from our doctors, pharmacists, IT department, OR department and nursing management. Together we collaborated to build a tool from the ground up. We created new order sets allowing for more consistent continuity of care amongst nursing and MD providers, and we created flowsheets that eliminated the need for superfluous narrative notes. After the launch, we continue to work side-by-side with our IT manager to improve the system. After a short run, we learned our workflow, but it was quickly clear that it was not the most efficient version of charting for the brachytherapy department. Discussion is as follows:

- IT continues to work side-by-side with us to overhaul the system and create an entirely new EPIC narrator for us to use that will more specifically address our needs.
  - Collaborate with pharmacy to discuss the safest order sets and medication options for our patients.
  - Discussions with billing to capture correct charges for procedures.
  - Working side-by-side with anesthesia to align charting with general anesthesia standards
- Innovation is as follows:
- Working on creating simple appointment summary for healthcare providers to access after treatments.
  - Building a charting narrator that is streamlined, intuitive and provides for safe handoffs between RNs.

## **P73**

### **IMPLEMENTATION OF AN INPATIENT ONCOLOGIC INITIATIVE AT A COMMUNITY HOSPITAL**

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#### Oncology Nursing Practice

With many cancer patients seeking care closer to home, provision of high quality, competent oncology nursing care at a community hospital is vital. The need for comprehensive inpatient oncology care at our community hospital was identified. To meet this need, a comprehensive education program was developed addressing safe administration of chemotherapy agents, care of the oncologist patient and family, oncologic emergencies, as well as hands-on experience with Oncology patients at our Infusion Center. Initial meetings were held in order to set initiative goals, determine hospital buy in and attain Medical-Surgical nursing perspective toward the new initiative. It was then determined the oncologic population, when requiring admission, would be cohorted to a dedicated unit. From April to June 2022, 5 education courses were provided. 16 nurses attended, with 81% reporting no prior experience with the Oncology population. Following completion of the initial course, each nurse finalized their competency training with hands-on patient experience in the outpatient Infusion Center. Post-course survey feedback showed 100% reporting that content was relevant, pertinent and outcome goals were met, with common concerns being unit staffing ratios and concern with not administering chemotherapy often on the unit. Ongoing education to support nursing needs and feedback include annual competency assessments, ongoing refresher courses and open availability within the Infusion Center for hands-on experience. In conclusion, with hospital support and multidisciplinary participation, development of an inpatient oncology initiative is feasible in the community setting. Opportunities identified thus far include development of an education course tailored to the Nurse Assistant/Patient Care Assistant, as well as Palliative Care involvement with ongoing education on the unit-level.

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#### TIMELINESS OF INITIATION OF FIRST COURSE OF CANCER TREATMENT AT A COMMUNITY HOSPITAL-BASED INFUSION CENTER

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#### Coordination of Care

Timeliness of initiation of cancer treatment is crucial. Houston Methodist Infusion Center at The Woodlands is a 14-chair, hospital-based infusion center providing infusion therapies for the Oncology, Hematology, Rheumatology, Neurology and Gastroenterology populations. Our aim for this review was to evaluate the timeliness of initiation of first course of systemic therapy in the Oncology population. The current workflow at our community hospital-based infusion center after receiving a physician order includes benefit verification, Prior Authorization (when indicated) and order review by the Infusion Center Charge Nurse to determine any pre-treatment requirements, including but not limited to central line (IVAD) placement, baseline EKG, Radiation treatment planning, Fertility interventions or Pulmonary Function Testing. Each patient then receives a telephone consultation to discuss financial responsibility prior to scheduling. A retrospective review of 25 oncology patients who had systemic therapy orders placed in April 2022 was performed to determine timeliness of treatment initiation and IVAD placement, as well as to identify barriers to timely care. Eleven patients were deemed ineligible for this review due to treatment course involving maintenance or second line of therapy related to progression. Analysis of the remaining 14 patients showed an overall turnaround time from the placement of physician order to scheduling of initial course of treatment was 6.7 days, with IVAD placement turnaround time of 6.3 days. Payer mix included both MCR (50 %) and Commercial (50 %) payers, with 57% of Commercial payers requiring a prior authorization for approval of cancer treatment. In conclusion, with a multidisciplinary approach, timely initiation of cancer care is feasible in the community setting. Barriers identified were chair availability, requirements of insurance preauthorization, IVAD placement turnaround time and completion of Radiation planning for initiation of concurrent therapy.

### P75

#### TRANSITIONING TO PALLIATIVE CARE: THE DELICATE ART OF GUIDING PATIENTS ON END-OF-LIFE TREATMENT CONSIDERATIONS

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#### End of Life

Aggressive cancer treatments for patients with a terminal disease can be clinically ineffective and cause unnecessary pain and suffering at the end of life (EOL) including increased hospitalizations. Numerous therapeutic options have made it challenging for patients to stop treatment. Patient Access Services (PAS) at an NCI-designated Cancer Center in New York City scheduled 68,193 new visit consults from Aug 2021 to Aug 2022. 2,348 patients were not scheduled for clinically driven reasons, including poor performance status (PS). Following careful review, some of these patients were more appropriate for best supportive care. The Nurse Coordinator in PAS functions with a level of autonomy to assess clinical appropriateness for scheduling. When performed by experienced nurses with a high degree of training and readiness, communication about forgoing cancer therapy is an important component of quality patient care and fulfills an unmet need. Our project examined the frequency and uniqueness of these conversations with patients and families at this transitional point in their cancer journey. After an in-depth review of reports and phone assessment, and in collaboration with physician colleagues, some patients were determined to be unlikely to tolerate or benefit from further treatment and were not scheduled. Therapeutic conversations centered around goals of care including symptom management. This project describes the experience of several patients with poor performance status that receive a personalized conversation with a highly trained Oncology nurse, fulfilling their unmet needs. Our nurses are experts in each disease field in which they work and undergo a structured communication training program. Our presentation will provide examples of case studies where we implemented this expert nurse-led guidance. A 2019 ANA Position Statement stated the hallmarks of EOL include respect for patient self-determination, nonjudgmental support for patients' EOL preferences and values, and prevention and alleviation of suffering. This population of patients and their caregivers benefit from compassionate guidance from an experienced oncology nurse. Other centers may benefit from training nurses in EOL communication resulting in patients gaining earlier access to palliative care. Nurses are key stakeholders as they conduct unique patient-centered conversations about the risk and benefits of continuing treatment. This has allowed our physician partners more time with patients who are most appropriate for cancer-directed therapy.

The institution benefits through optimal resource allocation and staff utilization.

#### P76

### LAUNCH OF A NEW MULTIDISCIPLINARY PATIENT-CENTERED HEREDITARY CANCER PREVENTION CLINIC

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#### Screening, Early Detection, and Genetic Risk

Approximately 10% of cancers are hereditary, caused by an underlying pathogenic genetic variant. Identification of such variants can impact therapeutic options for cancer patients, and risk-management for those unaffected by cancer. Studies have demonstrated improved survival in patients with a hereditary cancer syndrome who undergo routine surveillance, chemoprevention, and prophylactic surgery. Although our program's genetic nurse navigators (GNNs) help ensure patient compliance with risk-management guidelines and emphasize cascade testing of family members, there is a lack of centralized care for ongoing needs in this population that require specialized cancer screenings, lifestyle and other risk factor modifications, and specific cancer risk-reducing measures. Our institution is launching a hereditary cancer prevention clinic (HCPC) to provide a multi-disciplinary, longitudinal cancer prevention program for individuals and families identified who are at increased risk for hereditary cancer. This program will provide education about hereditary cancers, and help patients coordinate high-risk surveillance and/or prophylactic procedures. This is the only clinical program of its kind in the region, under the umbrella of one of the longest standing and most robust cancer genetics programs in the country. These high-risk patient visits will include discussion of current recommended screenings and lifestyle modifications, education on long-term cancer prevention and survivorship, cascade testing of family members, and the opportunity for translational research. Staff will include: Medical Director, Advanced Practice Providers, Genetics Counselors, GNNs, Oncology Clinic RN, Genetic Counseling Assistants, and research team infrastructure. The GNNs will play a unique and essential role within this clinic; role delineation will be fine-

tuned within our multidisciplinary team as we continue through the planning phase into launching this HCPC. We plan to describe the steps in the planning, formation, and implementation of the program as well as our initial patient care data. As the only National Cancer Institute designated comprehensive cancer center in the region, we deliver the most innovative and compassionate care available while continually driving ground-breaking research to discover new treatments. Our mission is to prevent and reduce cancer with hereditary cancer identification, research, and long-term risk reduction efforts as a critical piece to this effort. The utilization of GNNs as an integral part of this multidisciplinary team will help lead to the transformation of hereditary cancer risk reduction and cancer care.

## P77

### CHANGING LANES: CAR T-CELL THERAPY TURNS TO THE AMBULATORY CARE SETTING

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#### Oncology Nursing Practice

CAR T-cell therapies are effective in treating hematological malignancies, but hospitals are now faced with dwindling inpatient capacity and lengthy mandatory monitoring for treatment side effects. With this, it was imperative for our institution to create another option for administration for certain CAR T-cell products, while maintaining high-quality patient-centered care and improving the patient experience, without compromising patient safety. As more CAR T-cell products become available, some have side effect profiles that lend to ambulatory administration. The purpose of this program development was to offer safe, high-quality patient-centered care, in a setting that is comfortable for the patient, while offsetting inpatient hospitalizations. We selected the CAR T-cell product Lisocabtagene Maraleucel, for use after two lines of therapy, as the first product to administer in the ambulatory setting based on its safety profile. We developed workflows for all ambulatory care staff, including providers, infusion nurses, oncology nurse navigators, as well as algorithms for triaging toxicity concerns and management. We created a back-up provider network for additional support for our advanced practice providers and

nursing colleagues. We created educational sessions for clinic and emergency department staff. To ensure clear communication with the Emergency Department, we developed a specialized care plan outlining the treatment and possible side effects and contact information for the ambulatory CAR T cell team. We developed daily workflows for all patient visits, including toxicity assessment. We created a specialized ambulatory CAR T-cell workbook for patients and caregivers to house the necessary information specific to ambulatory treatment. This includes important educational materials, space to document home vitals, intake and immune effector cell encephalopathy (ICE) scores, as well as an important phone number list. Patients received a blood pressure cuff, thermometer and pulse oximeter; and were taught how to self-monitor vitals. Two patients have successfully completed CAR T-Cell therapy in the outpatient setting. This has minimized the hospitalized days of these patients and improved their comfort during treatment. We were able to employ the workflows developed for toxicity screening and identified and treated toxicity early and safely. Indications for CAR T-cell therapy continue to expand. Outpatient education and administration of this therapy shows promising outcomes for decreasing hospitalization and increasing patient satisfaction without compromising safety. Additional considerations are to discuss the increased burden on caregivers.

## P78

### CHEMO IN THE OUTFIELD: EDUCATING NURSES ON NON-ONCOLOGY UNITS

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#### Oncology Nursing Practice

Increasingly, chemotherapy is being administered throughout this institution on non-oncology units. This exponential growth requires that we evaluate our Chemo in the Outfield (CITO) program to ensure efficiency and safety. To maintain CITO, we continuously evaluate the following variables: safe handling of hazardous products and adequate amounts of non-oncology nurses who are chemotherapy competent. The CITO program provides education to patients, timely administration of chemotherapy, coordination of care with other disciplines (pharmacy, other specialties, unit-based leadership), and allocates a chemo resource nurse to further support our non-oncology nurses. Thus far, the biggest challenge has been maintaining a reasonable number of non-oncology nurses who maintain chemotherapy competence. In this institution, non-oncology nurses must be knowledgeable of

oncological usage and non-oncological usage of chemotherapy. Many units, such as the neurology and the medical intensive care unit (MICU), have experienced both staff turnover and expansion of the units. To maintain competency and engagement of selected nurses and leadership, a yearly eight-hour self-paced chemo administration course is provided to the neurology, MICU, and the surgical gynecology-oncology nurses. This is followed by a two-hour skill and FAQ session. The course covers key chemotherapy policies, chemotherapy calculation, HSR management, extravasation, sepsis, central line care, and safe handling. During the two-hour skill session, staff simulate releasing orders in EPIC followed by demonstrating the administration of chemotherapy via various routes. The FAQ portion has been successful by providing staff with a safe environment to debrief on current or past scenarios that may have been challenging to this process. To increase the number of chemo competent non-oncology nurses, chemotherapy training is offered monthly to facilitate attendance. Newly trained non-oncology nurses have an opportunity to administer their first few patients who have chemo with the support of our chemotherapy resource nurse and professional development manager (educator), who oversees this program. Individual specialties maintain an online site that contains electronic resources and articles geared to the specific needs of the non-oncology nurse. Non-oncology nurses who attend this competency training have verbalized a greater comfort level with chemotherapy administration. The ONS Chemotherapy and Immunotherapy Guidelines act as an excellent foundation for them as they navigate learning chemotherapy administration and managing side effects for patient care.

### **P79 STANDARDIZED PATHWAY FOR AMBULATORY ONCOLOGY NURSES TO STREAMLINE CARE COORDINATION FOR HOME CARE PATIENT NEEDS**

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#### **Coordination of Care**

The ambulatory oncology nurse is responsible for coordination of care to oncology patients focusing on their complex needs. The lack of a standardized workflow for ambulatory nurses to refer and coordinate the necessary patient care needs for the complex oncology population was identified. Identified gaps led to the development of a resource guide and a standardization for docu-

mentation in the electronic medical record for clear, concise communication across the oncology patient's continuum of care. A standardized pathway for referrals for the ambulatory nurses to follow will improve consistent coordination of care and staff satisfaction. A baseline needs assessment was sent to the ambulatory care clinic nurses focusing on current knowledge and current processes. Collaboration with key stakeholders assisted in compiling resources and strategies to improve coordination of care. Process mapping identified three platforms the clinic nurse would incorporate into the coordination of patient needs. Work continues with the informatics team to develop an electronic form to be utilized for consistent documentation. A post assessment will be utilized evaluating the implementation of the standardized tool and overall satisfaction of the nursing staff. Qualtrics patient surveys focusing on care coordination is evaluated monthly. Standardization of a pathway was implemented to coordinate the intricate, complex needs of oncology patients across ambulatory care. A clear pathway and resources to coordinate the complicated needs of the oncology patient was needed across the ambulatory clinics. Implementing a standard form for documentation in the electronic health record (EHR) was identified as a key element improving communication and consistency across the care continuum. Evidenced-based research emphasizes the value of standardization to identify the complex needs of oncology patients and resources to coordinate the necessary services to manage symptoms related to their disease process or symptoms related to their oncology treatment plan. Developing a standardized pathway with implementation of a resource guide shared among the ambulatory care oncology nurses are introduced as a new workflow. Developing a form to complete in the electronic medical record provides concise, consistent communication across the care team. Development of the electronic form is not finalized with the informatics team therefore a shared smart phrase is currently in use.

### **P80 EVIDENCE BASED STRATEGIES TO REDUCE SCAN-RELATED ANXIETY/SCANXIETY**

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#### **Oncology Nursing Practice**

Waiting for Radiology scan results can affect the quality of life for Oncology patients. Bruce Feiler, a cancer survivor, described the "revolving door" experience of having surveillance scans and the emotional turmoil and unpredictability of waiting for those scan results. He

coined the experience as “Scanxiety.” Patients who are fearful and anxious during radiology nursing encounters; often point to waiting for results as a trigger. Oncology nurses usually provide emotional support; however, patients need established interventions on how to cope, due to the transient and recurring nature of Scanxiety. The purpose of this evidence-based project is to identify anxiety relief strategies, and to recommend interventions to help patients cope. The PICOT Question Framework was used: Among adult oncology patients, having surveillance scans, how does anxiety relief strategies, compared to standard care affect emotional wellbeing? A literature review was performed, electronic data bases (PubMed, EMBASE, CINAHL, and Psych INFO) searched and 10 articles were identified. These comprised of one control trial without randomization, one systematic review of a qualitative study, and eight descriptive studies. Studies were examined and synthesized for scan-related anxiety and relief factors. All 10 studies reported on scan-related anxiety: two reported on the physiological symptoms, three addressed fears of cancer recurrence, while two reported on decreased quality of life. The impact of scan timing was a common source of distress among subjects. Three studies reported distress pre-scan, two reported distress during scan, three reported a decrease in Scanxiety post scan, while four showed increased anxiety while waiting for scan results. Multiple relief factors and behaviors were noted to have positive effects on patients experiencing Scanxiety. Among them were communication with care teams, minimizing wait time for scan results, utilizing integrative medicine, embracing psychosocial support, and engaging in health literacy. Scanxiety is a common phenomenon among oncology patients, however its effect on patients’ emotional wellbeing and quality of life is not well recognized and managed. Scanxiety relief factors and behaviors identified in this evidence-based project were disseminated to various stakeholders and a patient resource, *Managing Scanxiety During Your Cancer Treatment*, was created which defines Scanxiety and provides coping strategies, such as communication with care teams regarding scan result wait time. Further research is needed to evaluate the effect of Scanxiety relief strategies on patients’ quality of life and emotional wellbeing.

## **P81 IMPROVING COMPLIANCE IN PERSONAL PROTECTIVE EQUIPMENT USE DURING MEDICATION ADMINISTRATION**

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## **Oncology Nursing Practice**

Throughout the COVID-19 pandemic nurses and regulating bodies weighed the options of re-using personal protective equipment during supply shortages. In the Oncology setting, PPE use is vital to protect nurses and patients from unintended exposures to hazardous medications that can lead to long term health problems. Safety during administration is especially important now more than ever due to ongoing supply shortages that increase the likelihood of spills. Increasing PPE compliance during medication administration would help to safeguard both the short- and long-term health of nurses providing life-saving care to patients on the road to recovery. Additional interventions can also assist to promote a safer environment for visitors and staff not involved in the administration of chemotherapies who could potentially be exposed through surface contamination. Completing annual educational in-services regarding the rationale for using proper PPE during administration of chemotherapy can help to increase compliance of nurses from 20% to a goal of near 80% (CJON, 20-4, p. 379). Additionally, instituting a policy at infusion facilities requiring nurses to place a plastic-backed absorbent pad on surfaces used to prepare hazardous medications immediately prior to administration can help to cut surface contamination and decrease the number of positive samples of exposure in employees from 20% (CJON, 20-4, p.379). Conducting a survey of employees utilizing PPE both before and after interventions would likely show a decrease in positive samples and an increase in PPE compliance among nurses administering chemotherapy. Additionally, using wipe kits from the USP Chapter <800> both before and after implementing the above interventions will help to provide more objective data for evaluation. Overall, the goal of this project is to promote a safer environment for chemotherapy administration by increasing PPE compliance and reducing incidences of spills and exposures. In the shadow of the COVID-19 pandemic, PPE use and re-use in the healthcare setting has changed drastically. Supply chain shortages have also led to the use of less-than-ideal closed system transfer devices, therefore, improved safety measures are vital to protect nurses and those being cared for during their journey.

## **P82 INNOVATING HAZARDOUS DRUG SAFETY THOUGH THE TIDES OF CHANGE**

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#### Oncology Nursing Practice

In a five hospital system, including an academic medical center and cancer institute, RN's are administering chemotherapy and other hazardous drugs following different standards. This problem was identified through conducting a multi-disciplinary gap analysis and evaluating safety events reported by frontline staff. With recent changes to the USP 800 chapter, and increased turnover rates post pandemic, new frontline staff face unique challenges with the administration and handling of chemotherapy and other hazardous drugs. The purpose of the project is to improve frontline staff awareness, competence, and safety across health system with a standardized and systematic approach to identifying, administering and handling chemotherapy and other hazardous drugs. Interventions include working with the clinical staff education department from the medical center and cancer institute, a multidisciplinary committee, and subcommittee to bring about changes. The focus of the subcommittee is to re-write policy and work with the clinical staff education department to make improvements to nomenclature, initial and annual staff training. In addition, the committee is working on defining the qualification and training needed to safely administer hazardous drugs in both oncology and non-oncology populations. Lastly, collaboration with pharmacy partners and informatics is underway to update HD identification in EMR, medication labels, and organization library of resources for staff. Evaluation of the interventions will continue to take place by analyzing safety event reports throughout hospital system. Projected outcomes post implementation include: decrease in safety events involving HD and improved frontline staff competence with the administration and handling of chemotherapy and other hazardous drugs. There is continued discussion around additional interventions needed for frontline staff to quickly identify hazardous drugs or hazard patient body fluids in the workspace utilizing the EMR, medication labels, and organization resources. One additional finding through the project gap analysis and literature review is the need to create a medical surveillance program available to staff that work frequently with hazardous drugs. This idea will continue to be discussed with hospital leaders.

### P83

#### THE DEVELOPMENT OF A SURVIVORSHIP LETTER TO BRIDGE THE GAP BETWEEN PCP AND ONCOLOGY TEAM

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#### Survivorship

The number of cancer survivors continues to increase and currently, there are over 18 million cancer survivors in the United States. During treatment, survivors tend to form a close relationship with their Oncology specific teams and then, at times, have difficulty transitioning back to the care of their primary care provider. Primary care providers (PCP) are also noted to respect the relationship between patients and their oncology teams and have, at times, some resistance accepting Oncology patients back into their care. This is likely multifactorial but can be specific to their lack of Oncology training and time restrictions. The purpose of the personalized survivorship letter from the survivorship team to the PCP is to ease this transition period and provide personalized surveillance and care guidelines to the PCP in order to properly care for the survivor. In order to assist in filling the gap between Primary Care Providers and the Oncology team, the survivorship team created a templated letter for each PCP with personalized patient information. The letter contains information pertinent to diagnosis, treatment, potential side effects and needed surveillance and screening testing. Goals were as follows:

- To enhance continuity of care
- To improve relationship between oncologist and primary care provider
- To ease the transition from oncologist to primary care provider
- To ensure appropriate screening and surveillance for patient specific to their cancer treatment plan
- To list potential complications/side effects from past treatment so that the PCP may tailor their care

Previous research indicates that survivorship teams should clearly specify follow-up recommendations as well as screening needs that should be completed by the PCP for Oncology patients. With the sharing of the survivorship letter to the PCP, the aim is that PCPs would be more confident and prepared to ensure appropriate follow-up care for their cancer patients. Written survivorship care plans have been regarded by both oncologists and PCPs as helpful but not sufficient enough to ease the transition; the addition of this letter aims to

fill this gap to ensure a more comprehensive and thorough transition. The Survivorship team continues to create and implement innovative ideas to continue to enhance their Oncology patients quality of life.

## **P84**

### **CROSS TRAINING INFUSION & APHERESIS NURSES TO PROVIDE HIGH QUALITY OF CARE TO BONE MARROW TRANSPLANT PATIENTS IN THE AMBULATORY SETTING**

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#### **Oncology Nursing Practice**

Our NCI designated Comprehensive Cancer Center recently opened a Transplantation and Cellular Therapy Center. Adult patients receive chemotherapy, undergo stem cell collection, and reinfusion of stem cells in this ambulatory treatment center. The combination of not enough apheresis trained nurses and an increase in our blood and marrow transplant (BMT) patient population identified a need to increase the number of apheresis trained nurses. Apheresis is a specialized therapy requiring nurses receive very precise education and orientation. Cross training infusion nurses to apheresis and apheresis nurses to infusion allows flexibility with staffing. The purpose was to expand clinical expertise of infusion nurses to care for all aspects of the BMT patient population: stem cell collection, pre-transplant, and post-transplant care. Although there are various apheresis treatments not related to the BMT patients, decision was made to focus training on the needs of the BMT patients. An apheresis orientation binder was created to facilitate a more focused training on the care of BMT patients. This binder provided an overview of apheresis standards of practice, and procedures specific to the BMT population; stem cell collection, mononuclear cell collection and photopheresis. Manufacturer didactic training regarding operation of the Spectra Optia® machine was provided. Apheresis nurses served as preceptors, providing support and guidance throughout these BMT procedures, and ensured there was careful management of apheresis machines. Infusion staff orienting to BMT Apheresis requires nurses to complete each procedure 10 times. Due to the fact that all apheresis nurses had prior in-

fusion orientation, a shorter course was provided for specific BMT patient population care and management in the BMT infusion area. The infusion to apheresis orientation has been accepted well by the infusion nurses as well as the apheresis nurses. Five out of six infusion RNs have completed their BMT apheresis orientation. The abundance of BMT apheresis procedures, along with the other apheresis procedures, are easier to manage with the newly trained infusion nurses. Patients have expressed satisfaction with the continuity of nursing care. Cross training staff to infusion and apheresis prepares nurses to care for this unique patient population throughout the entire BMT process. The goal is to complete cross-training for all staff. This allows nurses to expand their nursing expertise and provide safe and high quality care, contributing to decreased number of resources from external blood centers.

## **P85**

### **INTRODUCING RN COORDINATORS TO NON-TRANSPLANT HEME MALIGNANCY CARE**

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#### **Coordination of Care**

The Nurse Coordinator (NC) is a key member of a multi-disciplinary patient care team, which includes providers, residents, fellows, and other clinical support staff. The oncology NC provides oncology clinical support to patients and caregivers, such as comprehensive assessment, focused education, collaboration with local community physician practices, and decision-making support. The NC has the skills and knowledge to coordinate quality, patient-centered care through effective communication with the interprofessional cancer care team. This is a new role at our NCI designated cancer institute. As a new role, the scope of practice within our cancer center had not been clearly defined. The purpose was to develop, support, and successfully implement the new NC role in the malignant hematology clinic at an NCI designated cancer center. The oncology leadership team reviewed the ONS resources on oncology nurse navigators to align our vision with the ONS Position Statement. Workload balance was determined by health system metrics provided to the nursing leadership team. Input from the physician and advanced practice providers (APPs) was considered in defining duties to meet patient needs. Identification of other key personnel to meet during orientation, familiarization with inpatient units and staff were key tools for NCs to support patients and families across the cancer continuum. 5 NCs were hired to support 11

physician teams and 1 independent APP based on clinic volumes. NC feedback on their job satisfaction has been overwhelmingly positive in regards to their role. Provider feedback has included praise for increased coordination of care for their patients and reduced stress levels. All of the NCs hired had to have some malignant hematology experience. The orientation process was continually evaluated through a plan, do, study, act (PDSA) cycle for quality improvement with each new hire as we continued to evolve and develop the role. The experiences and feedback from the NC was vital to this evolution. Additional work was completed to clearly define the scope of practice and role delineation for the medical assistants and clinic nurses and how the NC role fits into the care of the patient.

## P86

### MAJOR ADVERSE CARDIOVASCULAR EVENTS AFTER ANDROGEN DEPRIVATION THERAPY IN PROSTATE CANCER PATIENTS WITH HYPERCHOLESTEROLEMIA/DIABETES

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#### Oncology Nursing Practice

Prostate cancer (PCa) patients treated with androgen deprivation therapy (ADT) may experience major adverse cardiovascular events (MACE).<sup>1,2</sup> It is unclear how much of MACE is caused by ADT itself. High cholesterol has been associated with lower MACE risk in older men.<sup>3,4</sup> A meta-analysis found that diabetes increases risk of a wide range of vascular diseases (e.g., coronary heart disease, ischaemic stroke) by 2-fold.<sup>5</sup> As nurses play a major role in managing cardiovascular (CV) health, it is important to increase awareness of potential MACE risk factors in PCa patients. This study aims to evaluate the association between hypercholesterolemia/diabetes and MACE risk after ADT initiation using real-world data. Medical records (2010-2020) of PCa patients (n=45,059) receiving LHRH agonist/antagonist injections were used to evaluate the impact of hypercholesterolemia and diabetes on MACE-free survival. Hypercholesterolemia/diabetes was defined as having taken hypercholesterolemia/diabetes medication or diagnosis with hypercholesterolemia/diabetes prior to the first MACE event after ADT start. Exclusion criteria included lack of ADT initiation date or MACE within six months prior to ADT initiation. MACE was defined as myocardial infarction, stroke, and death from any cause.<sup>6</sup> Kaplan-Meier event-free

survival curves and cox regression were used to compare MACE risk between patients with and without hypercholesterolemia/diabetes. 178,388 LHRH injection entries and 7,681 MACE were identified. MACE risk was only 1.8% lower (19.0% vs 20.8%) after 4 years for patients with hypercholesterolemia compared to those without (across 10 years, unadjusted: HR=0.88, 95% CI [0.83, 0.92] and adjusted: HR=0.85, 95% CI [0.77, 0.94]). MACE risk was similar (19.5% vs 19.6%) after 4 years for patients with and without diabetes (across 10 years, unadjusted: HR=0.97, 95% CI [0.92, 1.03]). After 4 years, MACE risk was only 1.8% lower for patients with hypercholesterolemia and was similar for patients with and without diabetes. The slightly lower MACE risk in patients with hypercholesterolemia may be due to the use of statins, which can reduce the incidence of CV events in a general population.<sup>7</sup> The similar risk of MACE in patients with and without diabetes may be because diabetes is well-controlled in the study population. Our analysis of data from ~45,000 PCa patients is likely an accurate reflection of the real world. Nurses should monitor PCa patients with underlying CV risk factors and help educate them on lifestyle changes that could impact treatment outcomes.

## P87

### AN OPPORTUNITY FOR A CHANGE IN VENUE FOR TREATING IRON DEFICIENT PREGNANT WOMEN

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#### Coordination of Care

Growing demands for treatment infusions for non-oncology indications in the ambulatory oncology infusion center has led to challenges in chair availability and timely patient scheduling. Iron deficiency anemia impacts a growing number of patients, especially in women of childbearing age, and affects up to 40% of patients during pregnancy. Iron requirements increase during pregnancy, so iron repletion needs to occur promptly, which was difficult due to capacity constraints in our infusion center. Although our initial goal was to increase capacity for cancer treatments, there was also an underlying concern about pregnant women being co-mingled with cancer patients who are often receiving hazardous drugs. The objectives for this project were to 1) increase chair capacity for oncology patients in the infusion center and 2) create a workflow for pregnant iron deficient patients to receive IV iron at an

alternative location to minimize their risk of exposure to hazardous drugs. We initiated a partnership and small working group with key stakeholders (e.g., oncology CNS, managers, and nursing staff from Infusion and OB/GYN) to explore this proposal. A potential space in the OB/GYN department was identified, where non-stress testing (NST) evaluations were done by RNs for pregnant women. An infusion RN and the Oncology CNS developed workflows, protocols, and educational tools, which were provided to the GYN team (RNs, MD) for review and approval. The infusion RN took the lead in providing instructions for the pump programming and IV iron administration, presenting question and answer sessions, and being responsible for hands-on competency validation, plus support, during the initial patient visits. Although there was some initial apprehension by OB/GYN nurses regarding the risks for reactions with IV iron, they felt well supported by the oncology staff. Pregnant women appreciated receiving treatment in the OB/GYN department, where any OB-specific questions could be addressed as needed. The oncology team felt reassured that these vulnerable women were getting their necessary treatment in an environment free of hazardous drugs. As the OB/GYN nurses became more comfortable with the process, they also started treating non-pregnant women (whose GYN provider had ordered IV iron), which ultimately improved accessibility for oncology patients in infusion. IV iron can be successfully administered outside of the ambulatory infusion center once necessary workflows and training have been implemented.

## **P88**

### **AN OBJECTIVE PATIENT-NEEDS BASED ACUITY TOOL FOR THE BONE MARROW TRANSPLANT PATIENT POPULATION**

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#### **Oncology Nursing Practice**

Correctly identifying specific patient care needs per shift and equally balancing nursing workload increases nurse satisfaction and optimizes resources needed to provide appropriate levels of care. Subjective acuity grading results in perception of unbalanced assignments, increased nursing workload, and inaccurate representation of patient needs per shift on a stem cell transplant (SCT) inpatient unit. By identifying trends of acuity scores within the different transplant types, it is able to be identified whether or not the tool is accurate and valid. The goal of this project was to develop, implement, and identify trends through the different transplant types in an objective acuity tool to accurately

ly define patient acuity based on specific care needs for SCT patients, appropriately balance nursing workload, and increase nurse satisfaction with patient acuity in their assignments. Observation and pre-survey feedback on the existing process and tool supported the need for a more defined grading approach. An objective acuity tool was designed to the needs of the SCT population through a literature search as well as staff feedback. Education materials were created for staff in-services and a bulletin board was displayed in the break room. The total number for acuity was utilized by the charge nurse when creating assignments. 87% of staff perceived the objective acuity tool as accurately reflecting their patient care needs, compared to 26% with the subjective tool. 74% of staff felt there was an equal distribution and balanced nursing workload, compared to 26% with the subjective tool. 65% satisfaction with the patient acuity in assignments was also seen, an increase of 45%. The development and implementation of the objective acuity tool was successful with 97% of staff feeling the new acuity tool has been beneficial, and 94% rating they would like to continue using the tool. The trends identified in the patient acuities for each type of transplant correlated directly with the patient's clinical picture. This is visible through the similar patterns graphed for each transplant type. Literature supports the use of a tailored tool in specialized patient populations for it more accurately reflects necessary levels of care and leads to improved patient outcomes. Since the SCT population comes with its own specific set of needs that creates complexity in care, it is vital that they are accurately represented to provide the safest and highest quality nursing care.

## **P89**

### **AN INNOVATIVE METHOD TO DECREASE BURNOUT ON A MEDICAL ONCOLOGY UNIT THROUGH STAFF LEAD EBP INTERVENTIONS**

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#### **Oncology Nursing Practice**

Oncology nurses are exposed to many stressors while caring for the complex needs of cancer patients, which leads to burnout. The nurses on an inpatient medical oncology unit at an NYC academic medical center expressed many feelings of burnout in the work environment post the height of the COVID-19 pandemic. Two years later, nurses are still expressing and

experiencing burnout. The purpose was to decrease oncology nurses' perceptions of nursing burnout through evidenced-based interventions. A survey was used to assess the current level of nurse burnout and ask the nurses to rank different activities in order of importance to help with decreasing the perception of burnout among staff. From May to August 2022, interventions to decrease nurse burnout were implemented such as, uninterrupted breaks, staff recognition using e-cards, organized outdoor group activities, and information on wellbeing-coaches and counseling available to staff. Burnout was measured with a 1 item question on a 5-point Likert scale validated previously in nurses to measure burnout. Items 1-2 indicate no burnout and items 3-5 indicate some level of burnout from "burning out" to "burnout won't go away" to "completely burned out." The burnout level of nurses equals 2.93 in May 2022 (n=46). This is at the higher end of 2, closer to 3, where 3 means some level of burnout. Participants were asked to rank 13 activities related to resilience and decreasing burnout in order of importance. The staff rated 1st: uninterrupted break, 2nd: time to unplug, 3rd: taking a break outside, 4th: group outings/activities, 5th: meditation/mindfulness was tied with view of outside during break, and 6th: recognition. Post implementation, in July (n=37) the burnout level was 2.89 and in August (n=31) burnout level was 2.98. Helping nurses deal with nurse burnout is multifactorial. Although the interventions implemented did not decrease perceptions of nurse burnout, staff were empowered to help each other and increase unity among staff. The staff felt like it was in their control to act towards improving their work environment and an improvement in staff morale was palpable. Over the past 6 months of the burnout project, a new shared governance unit council emerged to help further the professional practice of staff, increase staff engagement, and increase oncology nursing educational opportunities.

## **P90 CHALLENGES IN IMPLEMENTING EVIDENCE-BASED PRACTICE PROJECT FINDINGS INTO CLINICAL PRACTICE**

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[Oncology Nursing Practice](#)

A nursing-led evidence-based practice pilot found that an initial three-step titration provided with first and second lifetime exposure Paclitaxel and Docetaxel infusions decreased the incidence of patient hypersensitivity reactions and reduced the severity of hypersensitivity reactions preventing the need for a drug

desensitization referral. As beneficial as the titration proved to be, challenges were noted while attempting to translate the strict pilot into large volume practices. Topics that needed to be discussed included changes to the electronic medical record chemotherapy templates, standardizing the titratable infusion rates, creating infusion pump guardrails, and drug preparation changes. A workgroup consisting of nurses, pharmacists, and allergists was created to discuss the feasibility and sustainability of implementing our findings into daily practice. During the pilot, our pharmacy prepared the tubing primed with drug. In alignment with USP 800, it was decided that our pharmacy could no longer sustainably prime first and second lifetime Taxanes with drug and would return to priming with diluent. Nurses would now need to prime the tubing with drug using the infusion pump prior to infusing the extremely small volume seen in Step-1 while minimizing the risk for drug bolus. Unfortunately, our volumetric infusion pumps and tubing have a +/-10% variability in volume. As a result, we needed to increase both the rates and total volumes to be infused to increase the probability of patients receiving any of the volume seen in Step-1 prior to moving on to Step-2. During the pilot, nurses were instructed to titrate as Step-1: Infuse at 1% of the ordered rate for fifteen minutes; Step-2: Infuse the drug at 10% of the ordered rate for fifteen minutes; Step-3: Return to the ordered infusion rate until drug completion. While these percentages prove easy medication math, standardization of the rates allowed us to create an infusion pump guardrail to minimize the risk of medication math and manual entry of the infusion pump errors. These newly developed titratable rates will be trialed on the original piloting units starting on October 3rd, 2022 prior to standardizing the practice across the entire Institute. Preventing Taxane hypersensitivity reactions in patients decreases time in infusion chairs, decreases the number of referrals to drug desensitization, and increases patient safety and satisfaction.

## **P91 IMPLEMENTATION OF INDIVIDUALIZED ONCOLOGY EDUCATION AND CARE PLAN DOCUMENTATION IN THE ELECTRONIC HEALTH RECORD**

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Effective nursing documentation with individualized



care plans education is imperative for continuity of care, quality, safety, and accountability. The Joint Commission states nursing care plans are the “structural framework for coordinating communication” and with effective care plans it can lead to increase patient safety for patients (States & Hughes, n.d., pp. 3-180). Current care plans and education in the electronic health record lack individuality for the oncology patient population. Implementation of the individualized documentation will ensure that documentation meets regulatory standards. Research has shown that individualized care planning in the EHR has resulted in earlier recognition of patient problems and can ultimately lead to shorter length of stay in the hospital (States & Hughes, n.d.). The objective of this project was to implement Oncology care plans and individualized education into PennChart to improve documentation of the care provided and improve patient care outcomes. The project also utilized the implementation of automated care plans and education to optimize the functionality and increase documentation compliance for care plans and education. Oncology Care plans and education implementation project in the EHR was a collaborative effort with staff members from the Clinical Nurse Specialist/Clinical Practice Leader team, nursing leadership, informatics and clinical implementation team. Oncology care plans were created to incorporate symptoms of the disease, treatment side effects, prognosis and goals. Oncology education points were created and implemented to reflect the specific individualized education needs of the oncology patient population. In order to enhance the nursing workflow, technology was utilized to incorporate automated education points and care plans based on each individual's need. The automated orders were triggered by Admission order sets and active orders. The implementation of Oncology Care Plans and individualized education in the EHR has increased safety for our patients, improved communication and increased the effectiveness of nursing documentation. By utilizing the automated technology, this has eliminated the need for nurses to manually enter care plans and individualized education. This technology has allowed for our documentation compliance to increase and has improved the nursing workflow since there is a decrease in the amount of time spent searching for relevant education. We continue to optimize this project by creating additional education topics with the utilization of automated technology.

## **P92**

### **NEWSFLASH! CHEMOTHERAPY EDUCATION NOW AVAILABLE AT YOUR FINGERTIPS**

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#### **Patient Education and Safety**

COVID brought challenges to most things in health-care. Patient education was no exception. Prior to 2020, before receiving initial chemotherapy, patients attended a group session which included education about support services, potential side effects, management of side effects and the process for contacting team members after hours. The onset of the pandemic compelled the team to identify a method to deliver this content without bringing patients and caregivers on-site. Initially, nurses called patients to provide education. This was a temporary solution to ensure education was provided while an alternative strategy of video education was developed. As part of a greater initiative, our facility was looking at ways to deliver care with greater use of technology. The team explored creating educational videos to replace in-person classes. This would enable patients more flexibility in learning about their treatment. The main goal was to provide patients the time and space to absorb the educational content prior to the start of treatment. COVID provided an impetus to move this initiative up sooner than originally planned. The oncology nurse manager and the oncology clinical nurse specialist in a community Cancer Center met with the patient education, health education & content services senior education specialist to discuss interest in creating a video to replace the chemotherapy education class. In addition, our facility is Quality Oncology Practice Initiative (QOPI®) accredited which includes standards to consider in patient education. While reviewing content for the video, a teach-back script was developed to ensure that desired content was understood by patients. Documentation templates were developed to assist with sending external links to patients via their electronic health record (EHR) portal or personal e-mail. For those without access to portal or e-mail, time was scheduled to come to the clinic to view the videos. Workflows were created and shared with staff in a meeting. The process was piloted, and processes were modified based on staff and patient feedback. The final review will analyze patient experience data to evaluate other types of education that patients may value in this format and what other types of nursing departments or patient education would benefit from these findings. Utilization of technology to deliver patient education empowers patients to take control of their learning and decreases need for additional clinic visits.

## P93

### NURSING RESEARCH AS PROFESSIONAL DEVELOPMENT

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#### Professional Development

From 2016 – 2021 nurses from an infusion unit at a large midwestern comprehensive cancer center completed a nurse-driven, single-blind, randomized, research study. During this project, the chairside nurses gained many new experiences which inspired them to work toward professional goals outside of the project. The purpose was to share professional development accomplishments of a team of chairside nurses during a nursing research project and how they became more engaged in their work and professional goals. Professional development endeavors for this group included role promotions, clinical ladder promotions, graduate degrees, participation in shared governance, publication, and local/national presentations. During each stage of the research project through completion, the team discussed their experiences, lessons learned, and goals. Data from interviews with chairside nurses involved in this project about their experiences and achievements will be presented. Participation and leadership in a chairside nurse-driven research study was a new process for this group. With steady mentorship, they succeeded in not only completing a randomized, intervention study but also saw other professional goals achieved as well. This new experience provided this team with opportunities for networking, public speaking, working with teams, navigating formal review boards, and formal writing among other things. This breadth and depth of experience increased the staff self-confidence, and each took on roles and goal setting in other areas of their professional lives. Nurses at this comprehensive cancer center have participated in research many times, however, the innovation here is that this team of full-time chairside nurses were the ones to lead, develop, implement, and complete this nursing research project. They were able to do this with the support of clinic leadership and

their peers while also working on their own professional development goals.

## P94

### ADMINISTER IP (INTRAPERITONEAL) CHEMOTHERAPY WITH CONFIDENCE

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#### Oncology Nursing Practice

Intraperitoneal chemotherapy (IP) administration is not a new treatment modality. Research has shown the combination of intravenous and intraperitoneal chemotherapy has improved survival rates in patients diagnosed with stage III ovarian cancer. Nurses at our NCI-designated comprehensive cancer center have identified a need to improve their skills related to administration of IP chemotherapy because it is a high-risk/low frequency procedure. The purpose was to ensure the competency and decrease anxiety within the infusion nursing team through revitalized multi-modality education which meets the needs of learners and ensures that treatment nurses have the skills they need to safely administer IP chemotherapy. The intervention involved utilizing peer-reviewed literature to develop an educational presentation on the administration of IP chemotherapy. By utilizing an online learning platform, nurses can review learned skills at their own pace and complete a knowledge assessment at the conclusion of the module. After completing the online education, the nurse educator will accompany the nurse when administering IP chemotherapy for the first time. Together, they will use the easy-to-follow, step-by-step competency checklist. The final step is to match novice nurses with more experienced nurses as resources as support for future IP administration. Surveys will be conducted pre- and post-online module completion to assess knowledge. Formal evaluations via the competency checklist will be performed by nurse educators to document competency. Additionally, each learner will evaluate the process providing feedback and/or recommendations as it pertains to education materials and course content. Oncology nursing is becoming more complex, and acuity of patients is increasing. Competency and confidence in performing complex procedures such as IP chemotherapy administration is important

and can only come with knowledge and practice. A skilled, confident nurse clinician is an integral part of providing competent and safe patient care. Nursing educators and mentors must be sensitive to nurses' needs and their learning styles in today's workforce. A strong nursing education team is an essential part of every oncology organization. Adequate staff training is not only important as it relates to patient safety, but it also increases the moral and confidence of our team members which also improves patient care.

## **P95 CHEMOTHERAPY-RELATED SYMPTOMS TRAJECTORY AND THE LINKAGE WITH PHYSICAL ACTIVITY AND DIET IN COLORECTAL CANCER PATIENTS**

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### **Survivorship**

Chemotherapy, the first-line treatment for colorectal cancer (CRC), often cause distressing pain, fatigue, and sleep disturbance, and negatively impacts the patient's quality of life. This study is to describe the dynamic changes of three main chemotherapy-related symptoms over one cycle and examine their association with physical activity and diet. A prospective longitudinal study design was used to recruit CRC patients at one large Cancer Institute in the Northeastern US. Data collections were conducted prior to one chemotherapy cycle (Baseline), immediately after chemo-meds administration (V2), and at the end of the recovery (V3). Evaluation was with Brief Pain Inventory, Functional Assessment of Chronic Illness Therapy-Fatigue, quality of life, the PROMIS sleep disturbance 6a scale, Godin leisure-Time Questionnaire, and self-reported Diet Screener Questionnaire, and the Percentage Energy from Fat Screener (PFat) were used. Descriptive statistics, correlation, Wilcoxon signed-rank test, and a mixed-effects linear model were performed by the R package. 34 participants were enrolled. The average age was  $(58.18 \pm 12.56)$ , and 58.82% of them were overweight or obese, and working with cancer, in cancer stage III or IV (76.47%), and 46.67% of patients were insufficiently active after chemotherapy completion. Fatigue score (higher represents less fatigue) decreased significantly from baseline  $(36.73 \pm 10.77)$  to V2  $(30.670 \pm 12.150, p=0.012)$ , and increased at V3  $(35.620 \pm 11.210, p=0.018)$ . In LMM analyses, Patients who had a higher fat ( $=-0.561, p=0.004$ ) and fiber intake ( $=-4.156, p=0.002$ ), and were in Cancer stage III ( $=-11.618, p=0.033$ ) and IV ( $=-14.794, p=0.019$ ) had higher fatigue

burden. Employed patients experienced higher fatigue levels than those unemployed ( $=22.659, p=0.009$ ). Insufficient physical activity ( $=-1.759, p=0.032$ ) was associated with less pain interference, and the Non-5-Fu regimen was associated with a worse general quality of life ( $=-20.431, p=0.024$ ), as well as the physical ( $=-6.007, p=0.021$ ) and functional well-being ( $=-6.005, p=0.015$ ). CRC patients have severe fatigue, pain, sleep disturbance, and poor QoL in the days following the administration of chemotherapy, and the associated factors included high-fiber and high-fat intake, cancer stage III and IV, employment status, as well as chemotherapy regimen. This study specifically explored patients' symptom trajectories and phenotypes during the chemotherapy cycle, and all these findings shall provide optimal timing evidence for clinicians to develop patient-centered chemotherapy-related symptom assessment tools and management strategies.

## **P96 EVUSHELD FOR THE IMMUNOSUPPRESSED: EFFICIENT ADMINISTRATION OF PRE- EXPOSURE PROPHYLAXIS FOR COVID IN THE OUTPATIENT ONCOLOGY SETTING**

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### **Oncology Nursing Practice**

Providing immunocompromised patients, the best defense against being infected with COVID-19 is crucial. December 2021, the FDA gave emergency use authorization (EUA) of Evusheld, the only authorized pre-exposure prophylaxis available against COVID-19. Evusheld therapy is composed of two monoclonal antibodies tixagevimab and cilgavimab and patients are recommended to receive therapy every 6 months. Early January 2022 leadership began examining how to adapt and incorporate the growing demand of Evusheld administration in high volume outpatient area in a safe and efficient manner. The purpose was to provide pre-exposure prophylaxis for prevention of COVID-19 in the oncology patient population utilizing a streamlined and efficient process. Our Fast Track unit, where

injections are given and blood specimens are obtained, was determined to best be able to administer this treatment while maintaining their existing volume/census. We educated clinical providers on inclusion and exclusion criteria as approved by the Food and Drug Administration (FDA). An ordering process within the electronic medical record was built, which then enabled the patient to self-schedule the injection appointment. The treating RNs were provided education and formal in-services regarding Evusheld, which was uploaded onto the OneDrive for future reference. Since these patients were coming from different office practices, on-site nurse practitioner coverage was identified as necessary on treatment days in case of a reaction. Since January 2021 our outpatient sites have safely and efficiently administered 506, with 5 adverse reactions (0.01%), doses of Evusheld in our Fast Track unit. Ensuring communication of administration clearance is communicated in a clear and concise manner within the interdisciplinary team. Additionally, verifying the Fast Track department could absorb the ever-growing volume while not interrupting operational efficiency within the Fast Track department.

### **P97 PUTTING PIECES OF THE PUZZLE TOGETHER: CANCER BIOMARKERS FOR HEMATOLOGIC MALIGNANCIES AND THEIR IMPACT TO PATIENT CARE**

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University Medical Center, Bolingbrook, IL**

#### **Treatment Modalities**

Biomarkers represent a dynamic and evolving realm to the science of oncology, especially for malignant hematology. Oncology nurses need to understand these complex concepts in order to provide excellent care to their patients. We are learning more about these cellular pathways each and every day and this knowledge of basic physiology combined with some of the common, key variants have translated to clinical practice enhancements with pharmacologic targets that greatly impact patient outcomes, survival, and quality of life. The purpose of this presentation is to educate nurses on these common cancer biomarkers for hematologic malignancies, their normal cellular pathways, and the consequences of variants to these pathways in carcinogenesis, promotion, progression, and metastases. This presentation will describe in detail common biomarkers for hematologic malignancies, their variants, their significance, and pharmacological targets that benefit patient care. The nurse will be able to recognize these and understand how to incorporate this

new knowledge into patient care such as monitoring their patients for the intended effects and common side effects, nurse and patient education, and disease response. The mechanism of action and how the pharmaceutical targets manipulate the cancer cells will be highlighted. The nurse will be able to name several biomarkers, their variants, and understand the pharmacologic concept and clinical benefit of interfering with the variant's effect on their disease. Although this presentation will provide a strong foundation of these concepts; it is only part of the bigger picture. Today, we are still missing many pieces of the whole puzzle. However, in many patients who cannot tolerate traditional toxic chemotherapy and/or undergo hematopoietic stem cell transplantation, these targeted therapeutic approaches (many via oral and subcutaneous routes) offer alternative solutions to effectively control or minimize disease progression and promote patient well-being.

### **P98 DISSEMINATED INTRAVASCULAR COAGULATION NURSING PEARLS**

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#### **Oncology Nursing Practice**

Disseminated Intravascular Coagulation (DIC) is a rare oncologic emergency that affects the blood coagulation system that triggers both systemic clotting along with life-threatening bleeding that leads to significant morbidity and mortality in people with cancer and other related conditions such as sepsis. The purpose of this presentation is to educate nurses on the exact causes, pathophysiology, signs and symptoms, treatment interventions, monitoring, and resolution of DIC using easy to understand terms and language. Nurses can then use this information to better communicate with patients and their loved ones regarding any questions and concerns when this condition presents itself. Through early identification of DIC, by knowing high-risk patient populations, and monitoring these patients for known signs and symptoms as well as monitoring common laboratory values and trends, morbidity and mortality can be significantly reduced. Furthermore, prompt life-saving interventions such as initiating cancer treatment or sepsis management and a host of many other supportive nursing care measures such as replacing coagulation factors, blood product transfusions, and anticoagulation in some cases will be highlighted. Nurses will be able to describe exact causes, pathophysiology, signs and symptoms, treatment interventions, monitoring, and resolution of DIC when this oncologic emergency may occur. This presentation

will help nurses understand this complex coagulation pathway and any alterations as a result on this condition. Having a strong understanding this complex condition known as DIC arms the nurse with several tools and strategies that can save lives in early-stage disease. It is vital to identify this oncologic emergency and intervene immediately so that the patient has a fighting chance to safely get into the cancer treatment phase to better impact their disease outcome, rather than the patient developing a potentially catastrophic coagulation event that we might be able to intervene quick enough to reverse course.

## P99

### INSULINOMA IDENTIFICATION: AN ONCOLOGY NURSE'S ROLE

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#### Oncology Nursing Practice

Insulinoma is a rare insulin-secreting tumor of the pancreas. Insulinomas cause the body to produce insulin beyond what the body can utilize, leading to life-threatening hypoglycemia. Accurate findings requires precise timing along with astute nursing assessment to prevent adverse effects to the patient. In the outpatient setting, a nurse-intensive, patient monitored controlled fast is the gold standard evaluation of Insulinoma. There is insufficient literature to standardize nursing care of individuals with this type of tumor. Developing procedures to monitor these patients safely without test interruption is paramount to success as these patients appear more frequently in our NCI Designated Comprehensive Cancer Center. Insulinoma is complex with little available resources to guide patient care. Our objective is to develop standardized nursing education that will ensure a precise fasting glucose test in patients with suspected Insulinoma to generate accurate test results and close monitoring preventing harm to the patient. Intervention: Integrate available knowledge into the development of multi-modality education on how to safely conduct a fasting test when a patient is severely hypoglycemic with mild symptoms without interrupting the fasting test to accurately detect Insulinoma. This will be a nursing-led training both in person and by online learning platform. In addition, a guideline reference sheet has been developed for review before caring for this type of patient. Finally, using the EMR system to build standardized test methods with specif-

ic parameters to conduct these tests precisely will provide the nurses with guidance. A brief pre and post-test will be provided to the nurses to assess knowledge and competency. In addition, a post-survey for evaluation will be distributed for nursing feedback and recommendations. Oncology nursing is becoming increasingly challenging and complex, and skilled nursing care is required for the successful diagnosis and treatment of patients. As nurses, we must follow the trends, perfect our skills, and utilize available resources to reach our goals. During a nursing shortage, the utilization of technology, including online-educational tools and an EMR system, allows nurses to streamline care and keep up in a fast-paced ambulatory setting.

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## INDUSTRY-SUPPORTED

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## P100

### IMPROVING PATIENT OUTCOMES: ONCOLOGY NURSES' KEY ROLE IN OPTIMIZING A PATIENT'S TIME ON TUMOR TREATING FIELDS THERAPY (TTFIELDS) FOR GLIOBLASTOMA THROUGH APPROPRIATE SKIN CARE SUPPORT

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#### Oncology Nursing Practice

Glioblastoma (GBM) remains one of the most challenging cancers to treat, despite developments in the understanding of its genetic and molecular drivers. Annual incidence in the US is ~12,000 adults over 40 years of age. A significant advancement in the treatment of GBM was the approval of Optune®, a medical device that delivers Tumor Treating Fields (TTFields), electric fields that exert physical forces to disrupt cellular processes critical for cancer cell division and tumor progression to the area of a patients' brain tumor through a set of adherent arrays placed directly onto the scalp. TTFields primary mechanism is anti-mitotic, although emerging evidence indicates additional effects such as enhanced anti-tumor immunity, downregulation of DNA damage repair, and inhibition of cancer cell motility. TTFields time on therapy (TTFields usage) has been correlated with significantly improved Overall Survival (OS) and Progression Free Survival (PFS) in newly diagnosed GBM patients, thus maintaining maximum time on therapy is key for patient success. Oncology nurses are viewed as critical to the



assessment and early recognition of cancer treatment related skin toxicities, including opportunities for proactive management of TTFields treatment emergent skin-related adverse events (AEs), which may cause delays or discontinuation of therapy. The goal of this abstract is to raise awareness regarding utilization of prophylactic approaches to avoid potential skin (AEs), thereby potentially improving patient's time on TTFields therapy and ultimately driving improved patient outcomes. Oncology nurses play a key role in evidence-based patient prevention and management of cancer treatment-related skin toxicities. TTFields therapy-related patient management and support, via frequent skin monitoring and assessment of any irritation or lesions which may occur. Open communication with the provider and primary at-home care partner is crucial, such that skin AEs are prevented or detected early and appropriately treated, allowing patients to maintain their time on TTFields therapy to ensure maximal survival benefit. Oncology nurses drive transformative patient care, thus it is critical that they stay informed on NCCN recommended therapies such as TTFields. Oncology nurses are instrumental in preventing and decreasing cancer-treatment related skin toxicities thereby improving the quality of life and treatment outcomes for cancer patients.

### **P101 IN AND OUT: THE CONVENIENCE OF SUBCUTANEOUS EPCORITAMAB IN PATIENTS WITH RELAPSED/REFRACTORY LARGE B-CELL LYMPHOMA**

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#### **Oncology Nursing Practice**

Clinical outcomes for patients with relapsed or refractory large B-cell lymphoma (R/R LBCL) remain poor and disease management is a challenge. Epcoritamab is a novel CD3xCD20 bispecific antibody that has demonstrated compelling efficacy (N=157; overall response rate, 63%; complete response rate, 39%) and a manageable safety profile as monotherapy in the EPCORE NHL-1 phase 2 study (NCT03625037) in patients with

R/R LBCL. For optimal nursing care of patients treated with epcoritamab, key data for management of adverse events (AEs) are presented. Data from EPCORE NHL-1 is used to provide education on the administration and safety profile of epcoritamab to help facilitate early identification and management of AEs. Epcoritamab is administered as a 1-mL subcutaneous (SC) injection, preferably in the lower abdomen or thigh, alternating injection sites. Dosing occurs in 28-day cycles. In cycle 1, weekly treatment begins with step-up doses prior to full dose administration. Subsequently, full doses are administered weekly in cycles 2–3, every 2 weeks in cycles 4–9, and every 4 weeks from cycle 10 until disease progression or unacceptable toxicity. Premedication is mandatory during cycle 1 and optional during cycles 2 and beyond. The most common treatment emergent AEs observed in the study were cytokine release syndrome (CRS; 49.7%), injection-site reactions (28.0%), pyrexia (23.6%), fatigue (22.9%), neutropenia (21.7%), and diarrhea (20.4%). Most occurred in the first 12 weeks of treatment; incidence of common treatment-emergent AEs declined thereafter. Almost all CRS events were grade 1–2 and occurred following the first full dose in cycle 1. The most frequently observed CRS symptoms included fever ( $\geq 38.0^{\circ}\text{C}$ ), hypotension, and/or hypoxia. Injection-site reactions were only grade 1 (26%) and grade 2 (2%), and were mostly managed using cold pack, topical steroids, and/or oral antihistamines; the majority of patients had 1–2 events. Patient-reported experiences with epcoritamab treatment were captured through qualitative interviews among a subset of patients (n=20) who presented with at least one symptom at baseline (fatigue, body pain, night sweats, fever, sleep difficulties, lack of appetite, breathlessness, nausea); 88% of patients reported improvements in one or more symptoms following epcoritamab treatment and found the treatment to be tolerable and the SC administration to be convenient. SC epcoritamab is overall a well-tolerated, off-the-shelf CD20+ B-cell-targeted treatment that demonstrated single-agent activity and marked improvements in self-reported symptoms.

### **P102 EVALUATION OF NURSE-LED APPROACHES IN THE GENETIC TESTING PATHWAY IN BREAST CANCER CARE**

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Barcelona; Gillian Kruss, MNP, PG Dip, BSc, McGrath Foundation, North Sydney, NSW; Mandy van Rosmalen, MSN, RN, OCN®, ACONP®, Erasmus Medical Centre Rotterdam, Rotterdam,

#### Screening, Early Detection, and Genetic Risk

Germline testing for breast cancer gene (BRCA) 1 and/or 2 mutation (gBRCAm) is now a key part of HER2-negative breast cancer care due to its impact on access to targeted therapies, surgery and downstream cancer prevention for patients and family members. Historically gBRCAm testing has been led by genetics teams. However increasingly, nurses amongst other members of the multidisciplinary team (MDT) have taken on elements of the testing pathway with the goal of expanding and streamlining access to testing services. The purpose was to assess the benefit of nurse-led approaches in the gBRCAm testing pathway in HER2-negative breast cancer. PubMed and key cancer congresses (ASCO, ESMO, ESMO Breast and SABCS) were searched between 1 Jan 2000 and 5 Sept 2022 to identify relevant publications using the following search terms: “Nurse and BRCA”, “breast cancer nurse and BRCA”, “clinical nurse specialist and BRCA”, “nurse and BRCA testing pathway.” Twenty-two unique articles/congress abstracts were identified. These demonstrated that involving specialist breast cancer care nurses can streamline the genetic testing pathway and help provide patients with continuity of care. Key findings included: 1) that it is possible to integrate genetic testing into routine oncology clinics through a ‘mainstreaming’ approach, allowing involvement of the MDT; 2) nurses can play a key role in the genetic testing pathway through a mainstreaming approach, and this is acceptable to patients and physicians; 3) nurses can be involved at several stages of the testing pathway including gaining consent from patients, pre- and post-test counselling, obtaining patient samples, returning test results to patients and continued care of patients following receipt of their gBRCAm testing results; and 4) nurse-led decision coaching may enhance shared decision-making for patients with breast cancer. Furthermore, the genetics team should be involved throughout the genetic testing pathway but particularly when tests results are shared with patients to support interpretation, provide patient counselling and management of familial identification. The gBRCAm testing pathway for breast cancer care could be improved and streamlined by increasing nurse involvement. However, nurses need to receive specialist training and educational materials to build their knowledge and skillset. Further studies are warranted to better understand the roles that the nurse can play in the gBRCAm testing pathway.

Improved collaboration between genetics teams, physicians and nurses will provide the optimal streamlined gBRCAm testing pathway.

#### P103

#### RIBOCICLIB SAFETY, MONITORING, AND MANAGEMENT STRATEGIES IN ADVANCED BREAST CANCER

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#### Oncology Nursing Practice

Ribociclib, a CDK4/6 inhibitor, plus endocrine therapy (ET) is a recommended treatment option for HR+/HER2- advanced breast cancer (ABC) and has demonstrated statistically significant improvements in overall survival in three Phase III trials: MONALEESA-2, -3, -7. After 6.6 years of follow-up, trial analyses have shown a consistent ribociclib adverse event (AE) profile, which can be effectively managed with dose modifications while maintaining efficacy. In the MONALEESA trials, ribociclib was associated with a concentration-dependent increase in QT interval corrected by Fridericia’s formula (QTcF). Most ECG changes occurred within 4 weeks of treatment initiation and were reversible with dose interruptions, with no reported torsades de pointes cases. Monitoring and management of QTcF prolongation is essential for ribociclib. Additionally, the European Society of Cardiology (ESC) recently recommended consideration of ECG monitoring of all patients taking CDK4/6 inhibitors at high risk of QTc prolongation. The purpose was to review monitoring and management strategies for QTcF prolongation and potential drug-drug interactions associated with ribociclib. This clinical practice perspective, from a multidisciplinary oncology team (physician, nurse practitioner, and clinical pharmacist), reviews strategies for monitoring and managing these AEs. Across the MONALEESA trials, 1% of patients (14/1054) had QTcF >500 ms, and 6% (59/1054) had a >60-ms increase from baseline. Although QTcF prolongation is an infrequent event, there are clear strategies to monitor and manage it (Figure). At the recommended ribociclib starting dose, ECG monitoring is recommended at three time points: before initiating treatment, cycle 1 day 14, cycle 2 day 1, and when clinically indicated. Although 12-lead ECG has been standard, an FDA-cleared 6-lead mobile ECG device could be a time-saving and more convenient alternative. Additionally, medical history, electrolyte abnormalities, and potential

pharmacokinetic/pharmacodynamic interactions with concomitant medications, herbal supplements, and foods (e.g., strong CYP3A4 inhibitors/inducers) should be considered to optimize treatment outcomes. Ribociclib is an effective HR+/HER2– ABC treatment option with a manageable safety profile. Infrequent and reversible QTc prolongation events led to development of monitoring and management approaches, including concomitant medication guidelines and new technologies that simplify traditional ECG. Although guidelines emphasize monitoring and management of QTcF prolongation for ribociclib, there is some evidence these approaches may be broadly beneficial given recent ESC recommendations (class 2A, level C evidence) to consider monitoring patients taking any CDK4/6 inhibitor if at high risk of QTc prolongation. Funding: Novartis Pharmaceuticals Corporation.

#### **P104**

### **A COMPARISON OF PLASTIC-BACKED PADS TO SPLASHBLOCKER® IN REDUCING TOILET AEROSOLS**

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*Oncology Nursing Practice*

Studies have shown that hospital toilets produce aerosols as a result of high pressure flushing and the absence of a lid. In addition to carrying bacteria and viruses, the droplet nuclei can contain hazardous drugs when excreted by patients receiving chemotherapy. Guidelines have recommended covering the toilet with a plastic-backed pad (PBP) during flushing to reduce exposure, although no studies have been published on the effectiveness of this intervention. A study was conducted to compare the effectiveness of disposable PBPs and Splashblocker®, a reusable engineering barrier control, in reducing toilet aerosols. Experiments were conducted in a controlled-environment bathroom chamber using a Zurn Z5665 hospital-grade toilet connected to a commercial American Standard Flushometer™ valve. Water pressure was set to 55 PSI. The chamber was sealed, and air was HEPA filtered. Particle size distributions were measured using a TSI 9306 Optical Particle Counter (OPC) which records particles ranging from 0.3µm to 20.0µm every two seconds. Initial readings were taken before each test and were allowed to return to baseline prior to flushing the toilet remotely. Readings taken for two minutes. Three tests were performed with both the Splashblocker® and the PBPs with the OPC at a height of 16 inches (H1)

and 40 inches (H2) above the floor and then repeated with the toilet uncovered. A new PBP was used for each test. At H1, an average total of 73,038 particles/L were measured from the uncovered toilet during the test. Both the PBP and Splashblocker® reduced the total number of particles by 99% at H1. Fewer particles were measured at H2 from the uncovered toilet. There was a reduction of 95% and 75% using the PBP and Splashblocker® respectively, with no statistical significance between the interventions ( $p = .24$ ) using a two sample, one tail t-test. Both interventions significantly reduced the number of particles which can provide measurable safety benefits for healthcare workers. However, for all three tests, the PBP was sucked into the toilet bowl as a result of negative pressure generated by the siphonic action of the toilet. This can pose a challenge for nurses. As a reusable barrier control, the Splashblocker® is an environmentally friendly option with the benefit of potential long-term cost savings for healthcare organizations. Additional research in further reducing toilet plume aerosols is currently underway.

#### **P105**

### **PREVENTING AIR-IN LINE ALARMS: A NOVEL SOLUTION**

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*Oncology Nursing Practice*

Patient safety requires nurses to investigate all pump warnings, even those considered “nuisance alarms,” a phenomenon that contributes to nursing alarm fatigue. A number of intravenous (IV) drugs and fluids produce out-gassing bubbles that trigger air-in-line alarms (AILAs) when the bubble volume is greater than the alarm threshold. These alarms are a significant concern as they interrupt nursing workflow, impact patient sleep, and delay treatment. Approaches to reducing AILAs include attaching a back-check valve (BCV) or air-eliminating filter (AEF) to the IV tubing. The primary goal of this study was to compare the effectiveness of a BCV and AEF to AirVault, a novel air-sequestering device for reducing AILAs. A secondary aim was to investigate the terminal destination of bubbles from an AEF. A 100mL bag of normal saline was connected to the secondary port of an Alaris IV set primed through a BD Alaris PC infusion pump. The AirVault and AEF (B Braun Sterifix #131669) were placed at the distal end of the secondary tubing. The BCV (BD #04302260452) was placed at the distal end of the primary tubing. After starting the pump, 0.3mL of air was injected into the secondary tubing and repeated every five minutes for a total of five injections. Tests were performed six times for each

product at 150mL, 250mL and 400mL/hour for a total of 90 tests per device. For the secondary study goal, the AEF was placed into a tank of distilled water and visually checked for escaping bubbles. Using the BCV, AILAs occurred in 100% of the 250mL/hour and 400mL/hour tests, and in 63% at 150mL/hour, with an overall effectiveness of 12%. The AirVault and the AEF were 100% effective at all infusion rates. Both the AirVault and the AEF outperformed the BCV in preventing AILAs. However, the AEF was observed venting air bubbles into the water tank, suggesting that in clinical use, hazardous drug vapors would potentially escape into the environment. AirVault is a closed, non-vented system. Additionally, filtering of medications is controversial unless specifically prescribed by the manufacturer. Eliminating bubbles before they enter the pump benefits both patients and nurses. This study demonstrates that AirVault was 100% effective in preventing nuisance AILAs without venting potentially dangerous hazardous drug vapors. Further investigation with clinical testing is planned for 2023.

#### **P106** **QUALITY OF LIFE IN PATIENTS WITH** **MULTIPLE MYELOMA TREATED WITH** **SELINEXOR WHO HAD DOSE REDUCTIONS:** **A SUBGROUP ANALYSIS OF THE BOSTON** **STUDY**

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##### **Treatment Modalities**

Our exploratory, post-hoc analysis indicates selinexor dose reduction was associated with improved quality of life (QoL) in patients with relapsed/refractory multiple myeloma (RRMM). Together with previous results that selinexor dose reduction was associated with improved tolerability and efficacy in the BOSTON phase 3 trial (NCT03110562), these findings highlight the importance of dose reduction in optimizing treatment of RRMM. The oral XPO1 inhibitor selinexor is FDA-approved for treatment of RRMM with dexamethasone (Xd) or bortezomib and dexamethasone (XVd) in adults who have received at least one prior therapy. The recommended starting selinexor dose in the XVd regimen based on prescribing information is 100mg

QW, but the median dose in BOSTON was 80mg/week (range 30-137). A previous analysis reported patients with selinexor dose reduction had reduced AEs and improved progression-free survival. Here, we compared QoL in those patients. In BOSTON, patients with MM were randomized to selinexor QW (100mg), subcutaneous bortezomib QW (1.3mg/m<sup>2</sup>) and dexamethasone BIW (20mg) (n=195) or standard BIW subcutaneous V and dexamethasone. QoL was assessed at baseline and day-1 of each cycle using the EORTC QLQ-C30 with a 10-point change considered the meaningful change threshold. In total, 126 patients had selinexor dose reduction (median selinexor dose=71.3mg/week) and 69 did not (median=100mg/week; median age=66, median prior therapies=1 in both groups). The mean best change on the EORTC QLQ-C30 Global Health Status/QoL from baseline was 10.0 (STD=20.5) in the selinexor dose reduction group vs 4.0 (STD=20.9) in the group without. In the dose reduction group, 54 patients (45%) achieved an increase of 10 points or greater from baseline vs 20 patients (33%) in the group without. The first selinexor dose reduction was associated with a mean 4-point (STD=18.4) increase at the next assessment and 12.8-point (STD=20.7) increase to best post-reduction score. The majority of the selinexor dose reduction group (66 patients [72.5%]) achieved their best post-baseline score (including tied for best) after the first dose reduction. Efficacy and AE outcomes also improved in the dose reduction group. Patients' QoL on average improved after selinexor dose reduction, consistent with our previous report that dose reduction was associated with reduced AE rates and improved tolerability while also increasing efficacy. These results underscore dose reduction as an important strategy to optimize the therapeutic window for patients with RRMM.

#### **P107** **DEVELOPMENT OF AN ELECTRONIC** **REFERRAL TO THE LEUKEMIA & LYMPHOMA** **SOCIETY (LLS): ENHANCING ACCESS TO** **PATIENT RESOURCES AND INFORMATION**

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### Coordination of Care

Treatment for hematologic malignancies is often costly and complex, leading to financial difficulty, quality of life issues, and adherence challenges for patients, particularly those from underserved groups. The Leukemia & Lymphoma Society (LLS) advocates for patients with blood cancers and offers information, support services, and financial assistance, which can mitigate physical and psychosocial barriers to care. These services are free, but they are under-utilized. The purpose of this project was to develop and implement a novel Fast Healthcare Interoperability Resources (FHIR) based app at the point of care via the electronic health record (EHR) to facilitate referrals of newly diagnosed blood cancer patients to critical support resources at LLS. Through a collaborative effort by five organizations, a new FHIR based EHR app was developed and implemented, using a Best Practice Advisory (BPA) alert to a hematologic cancer nurse navigator (NN) at Sylvester Comprehensive Cancer Center (SCCC) to trigger an LLS referral. During the intake process by the NN, the NN speaks to the patient regarding LLS services and then clicks on the link that prompts the patient to sign a consent that would allow information to be transmitted to LLS. If the patient declines the referral, an in-basket message is then sent to the oncology social worker to re-engage the patient at a later time. LLS's Information Specialists then contacts the patient to discuss access to resources and services, such as financial assistance, support groups, clinical trials, and much more. Prior to implementation of the FHIR app, sources of referrals were not routinely captured and were in paper format. Fewer than 10 referrals were documented as coming from SCCC. The app not only increased the ease of referrals, but enabled tracking of metrics, resulting in increased referrals coming from SCCC being appropriately identified. Over 15 months of implementation, 245 patients (majority Hispanic) were referred to LLS, and LLS had over 700 interactions with these patients. By providing an easy way to refer to LLS, the EHR integrated referral app works to ensure ease of access to healthcare providers, which markedly improves patients' access to essential resources and education. Future directions will be to expand the pilot to develop workflows that support ease of referrals from physicians and advanced practice providers and to expand the pilot to other organizations nationwide.

### P108

#### **DAROLUTAMIDE CAN BE EFFECTIVELY AND SAFELY ADMINISTERED IN COMBINATION**

#### **WITH ANDROGEN-DEPRIVATION THERAPY AND DOCETAXEL IN PATIENTS WITH METASTATIC HORMONE-SENSITIVE PROSTATE CANCER**

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#### **Treatment Modalities**

Multiple factors contribute to treatment burden for patients with metastatic hormone-sensitive prostate cancer (mHSPC), including adverse events (AEs) and potential drug-drug interactions (DDIs). It is important that treatment advances in efficacy are balanced by acceptable safety and tolerability and limited DDIs. The androgen receptor inhibitor darolutamide has been shown to improve survival with a favorable safety and tolerability profile and low potential for DDIs. In patients with mHSPC, darolutamide in combination with ADT and docetaxel significantly reduced the risk of death by 32.5% versus standard of care ADT and docetaxel alone (HR 0.68, 95% CI: 0.57–0.80;  $P < 0.0001$ ) in the phase 3, double-blind, placebo-controlled ARASENS trial. The overall incidence of most AEs was similar between treatment groups, and incidences of the most common AEs (known AEs associated with docetaxel) were highest during overlapping treatment with docetaxel in both groups. The addition of darolutamide to ADT and docetaxel did not impact patients' ability to complete docetaxel therapy, with most patients receiving 6 cycles of docetaxel in both groups (87.6% and 85.5%, respectively). AEs leading to discontinuation or dose reduction of docetaxel were similar in each group (8.0%/19.9% of patients receiving darolutamide and 10.3%/19.5% of patients receiving placebo). Based on these data, darolutamide was FDA approved for treatment of mHSPC in combination with docetaxel. DDIs between darolutamide and docetaxel in patients with mHSPC were evaluated in ARASENS. Docetaxel had no clinically relevant effect on darolutamide exposure. Darolutamide led to a slight, but clinically irrelevant, increase in docetaxel exposure. Similar overall incidences of AEs and AEs leading to discontinuation of docetaxel in both groups corroborate the absence of clinically relevant DDIs between these drugs. Oncology nurses educate and counsel patients to help them understand their treatment options and



associated tolerability profiles for optimal patient outcomes and successful disease management. The results of ARASENS provide oncology nurses with the information needed to assist patients in evaluating the benefits and potential risks of combination therapy. These findings set a new standard of care for the treatment of patients with mHSPC. Darolutamide can be effectively and safely combined with docetaxel in patients with mHSPC to prolong their survival.

### **P109 UPDATES ON THE MANAGEMENT OF HYPERGLYCEMIA AND RASH ASSOCIATED WITH PHOSPHATIDYLINOSITOL-3-KINASE INHIBITORS FROM THE NURSING PERSPECTIVE**

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#### **Oncology Nursing Practice**

Alpelisib, an alpha-specific phosphatidylinositol-3-kinase (PI3K) inhibitor and degrader, is approved with fulvestrant for treating hormone receptor-positive, human epidermal growth factor receptor 2-negative, PIK-3CA-mutated advanced breast cancer. Hyperglycemia and rash are expected adverse events (AEs) observed with alpelisib, with clinical trials-reported all grade incidences of up to 65% and 39%, respectively. Although these are manageable and reversible, real-world experience supports the need for continued refinement of prevention and management strategies. The purpose was to provide updated guidance on managing hyperglycemia and rash associated with PI3K inhibition from the oncology nurse's perspective. Guidance is based on recently published expert consensus recommendations and literature, updated prescribing information, and the authors' clinical experience. For hyperglycemia prevention and management, (a) educate patients that hyperglycemia is an expected AE but that alpelisib has not been reported to cause diabetes; (b) screen patients for baseline risk factors for developing hyperglycemia; (c) recommend a low-carbohydrate diet and regular exercise (physical therapist or physiatrist referral may help patients start an exercise routine); (d) recommend prophylactic metformin if glycosylated hemoglobin (HbA1c) is 5.7%-6.4% (may also be appropriate if HbA1c is <5.7%), or with  $\geq 1$  risk factor; (e) advise weekly fasting/random blood glucose monitoring for patients on alpelisib, daily fasting glucose monitoring for patients at highest risk for developing hyperglycemia (age  $\geq 70$  years, BMI  $\geq 30$ , HbA1c 5.7%-6.4%), and daily

fingerstick/home continuous glucose monitoring for patients with  $\geq 1$  risk factor; (f) educate patients on and monitor for diabetic ketoacidosis; (g) encourage daily overnight fasting and hydration for patients developing hyperglycemia and advise quantifying fluid intake to ensure adequate hydration; (h) use insulin only as a last-line agent because it may reactivate the PI3K pathway. For rash prevention and management, (a) advise patients to avoid sun exposure, irritant products, long, hot showers and to use sunscreen, mild, fragrance-free soap/detergent, and noncomedogenic moisturizers; (b) consider prophylactic non-sedating antihistamine therapy before starting alpelisib; (c) non-sedating oral antihistamines and topical corticosteroids are the preferred initial therapy for rash; (d) educate patients on and monitor for angioedema (typically not serious but can potentially cause breathing difficulties). Notify provider for AEs per their instructions. Hyperglycemia and rash associated with alpelisib are manageable with prevention, early detection, and appropriate intervention. Proactive management of these AEs is essential to keep patients on treatment longer.

### **P110 CONTINUOUS TEMPERATURE MONITORING: THE VALUE OF EARLY FEVER DETECTION**

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#### **Symptom Management and Palliative Care**

The development of infection is an oncologic emergency for immunocompromised patients with neutropenia. Identifying fever early can allow for earlier intervention and prevention of escalation to a higher level of care. However, intermittent temperature monitoring may miss important fever events in patients with neutropenic fever. Current guidelines stress the importance of administering a first dose of antibiotics within 1 hour of fever identification.<sup>1</sup> Nurses have an opportunity to identify fever earlier and ensure prompt antibiotic administration through the adoption of technology that allows for non-invasive continuous and remote monitoring of patients. Studies show that continuous temperature monitoring (CTM) can identify fever up to 12 hours earlier than intermittent temperature monitoring.<sup>2,4</sup> As early as 2010, Van Vliet showed that CTM allowed for the early administration of antibiotics.<sup>2</sup> Verma and colleagues (2021) reported that patient self-monitoring of temperature was frequently inaccurate.<sup>3</sup> Nessel et al. (2022) described two episodes of fever associated with bloodstream infections where CTM detected fevers 5 hours and 12 hours earlier than fevers

detected by an oral thermometer.<sup>4</sup> CTM is available for use in both inpatient and outpatient settings. Depending on the setting, audible and visual alerts notify patients and providers of a rising temperature allowing for seamless integration into the current workflow and effective triage. As a result, earlier medical evaluation and prompt administration of antibiotics allow for improved patient care and outcomes. CTM records 8,640 data points in 24 hours versus the current standard of care, which usually measures up to 6 data points per day. Using CTM provides nurses with 8,634 more data points to use for making critical health care decisions. The increased frequency of data collection provides a detailed picture of the patient's status and allows for earlier identification of the trend or pattern of fever. A critical consideration in choosing a CTM device is the FDA regulatory status of the device. Currently, only one CTM device has received full FDA 510 (K) clearance and is CE Marked, TGA, and Health Canada cleared. Adopting technology that can identify fever earlier than current methods improves patient care and clinical outcomes and is a cost-savings strategy.<sup>5</sup>

### **P111 MULTIDISCIPLINARY TEAM EMBRACES TECHNOLOGY TO ADVANCE SUPPORT OF CANCER PATIENTS**

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#### **Oncology Nursing Practice**

A striking 70% of Americans live in counties without an oncologist. Considering the growing shortage of oncologists in the United States, increasing numbers of cancer survivors, and lessons learned from the recent pandemic, oncology nurses, as part of a multidisciplinary team and in partnership with health plans, created a digital telehealth platform “app” called Iris™ to deliver supportive care to cancer patients. The concept of an oncology virtual health platform began with the goal of increasing access to care for all cancer patients and serving as an extension to the patient's existing team. In an effort to fill the identified gaps, eligible patients register by downloading the Iris app on their mobile device. Once enrolled, patients have access to three primary resources including United States based, 24/7 oncology nurse support, oncology mental health therapy, and peer mentors. The nursing service is accessible

through a 24/7 telephone number and in-app live chat feature, both of which connect patients immediately to an oncology nurse. Nurses deliver evidence-based care through proactive outreach that provides digital content to address challenges specific to the patient's diagnosis and treatment. Nurses triage and deliver care using evidence-based tools such as PHQ-4 and PRO-CTCAE to assess the impact of the provided interventions over time. Following report of any new symptom and or delivery of intervention, Iris nurses communicate with the patient's primary medical oncology team, and follow-up with the patient as appropriate. Iris nurses work in a multidisciplinary team including mental health therapists and peer mentors. Iris mental health therapists are licensed counselors with oncology expertise that deliver evidence-based psychosocial care. Peer mentors are individuals with first-hand cancer experiences and are trained to provide emotional support and cancer journey-related encouragement. Recent evidence supports the demand for novel and accessible tools to improve the care of cancer patients. Iris meets this demand by partnering with health plans and offering a service that comes at no additional cost for patients. Iris fills gaps in traditional oncology practice by serving as an extension of primary oncology teams to deliver accessible, nurse-led care to cancer patients. In a future submission, we will present data demonstrating the impact of the Iris service on outcomes such as quality of life, rates of emergency department visits hospitalizations, and cost of care.

### **P112 BEST PRACTICES IN THE ADMINISTRATION OF [177LU]LU-PSMA-617 RADIOLIGAND THERAPY FOR PROSTATE CANCER IN US CENTERS**

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#### **Oncology Nursing Practice**

The treatment landscape for metastatic castration-resistant prostate cancer (mCRPC) is evolving toward biomarker-targeted theranostic approaches, eg, using prostate-specific membrane antigen (PSMA) as a target for radioligand imaging followed by radioligand therapy (RLT). One RLT, [177Lu]Lu PSMA 617, is approved in the US for treatment of PSMA positive mCRPC, based on results of the phase 3 VISION trial

(NCT03511664). Consequently, RLT centers/programs are increasingly being established in US cancer centers whereby nurses play a key role in patient care and education. The purpose was to summarize the requirements and best practices for establishing safe and efficient RLT centers/programs in the US. The design, construction, and operation of RLT centers/programs should be guided by the fundamentals of radiation protection established by the US Nuclear Regulatory Commission. Considerations include radiation protection/shielding with designated hot lab, treatment room and restroom; radioactive materials licensing; storage, handling, administration, and disposal of radiopharmaceuticals; treatment planning optimization; and patient release criteria, counseling, and follow-up. Additional considerations include radiation safety training, and coordination between multidisciplinary members. Although institutional requirements, resources, and roles may differ between centers, there are common elements of best practices for establishing RLT center/programs offering [<sup>177</sup>Lu]Lu-PSMA-617. Administration must be conducted by healthcare providers licensed and trained in the safe handling and use of radiopharmaceuticals. Treatment requires collaboration among multidisciplinary members that can include urologists, medical/radiation oncologists, radiation safety officers, nurses, and nuclear medicine specialists to ensure seamless communication and coordination, operational efficiency, and radiation safety. Care coordinators are critical in aiding collaboration and managing treatment scheduling and operational logistics. Nurses play a key role in patient care and education/counseling throughout treatment and remain a central point of contact; they are usually the last person to see patients before discharge. Nurses should provide and explain written discharge instructions outlining post-treatment radiation safety precautions, eg, hydration and frequent voiding, special hygiene, handling of biohazardous/radioactive waste, and time-dependent restrictions on contact with others. While there are many considerations for establishing RLT center/programs, staff training, adequate equipment, and patient education are key for the safe administration of [<sup>177</sup>Lu]Lu-PSMA-617. The understanding of these best practices by oncology nurses will optimize the safety and efficiency of RLT programs and improve patients' treatment experience. This abstract provides essential guidance for nurses on their role in the administration of a novel therapy ([<sup>177</sup>Lu]Lu-PSMA-617), based on the authors' front-line experience.

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## LEADERSHIP/MANAGEMENT/EDUCATION

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### P113

#### INTEGRATION OF SUICIDE PREVENTION INTO A NATIONAL COMPREHENSIVE CANCER NETWORK (NCCN) DESIGNATED CANCER CENTER

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##### Psychosocial Dimensions of Care

Suicide continues to be a leading preventable cause of death in the United States (Gascon et al., 2021). Studies have shown that suicide risk is 4.4 times greater in cancer patients than in the general population (Gascon et al., 2021; Zaorsky et al., 2019). The Joint Commission (TJC) has made suicide prevention a national patient safety goal (NPSQ) and recommends suicide screening among patients using a validated tool (The Joint Commission, 2019). The steady increase of incidence demonstrates a strong need to improve for cancer patients and their families. The purpose was to design and implement a suicide screening protocol for a large ambulatory oncology setting. A multi-disciplinary team convened in response to the increased incidence of suicide-related patient safety events in 2021. Representatives included nursing, social work, psychiatry, oncology providers, and quality and safety. In addition, a review of the literature and best practices at other NCCN centers was also conducted to guide protocol creation. A pilot plan was designed between two clinics, and teams were engaged for implementation in October 2022. Measures include ongoing evaluation of patient and staff satisfaction of the suicide screening protocol, % of patients screened during the pilot phase, and the % of patients who received a timely intervention. The pilot data and feedback will be used to guide the organization-wide implementation of the suicide screening protocol. Creating processes that have not been standardized across NCCN centers requires careful collaboration across disciplines. Close monitoring of the screening protocol includes ensuring that interventions are appropriately supporting patients found to be at risk and providing appropriate follow-up. The complexity of team composition, resources and bandwidth needs, use of the electronic medical record, and immediate engagement of at-risk patients are some of the risk areas and pain points that the project team mitigated to the success of the pilot implementation.

Suicide prevention in an oncology setting is a critical goal that lacks consistency across NCCN, and this program aligns with the NPSQ and improves patient outcomes.

#### **P114**

### **CANCER CONTROL: GENETICS, PREVENTION AND WELLNESS CLINIC**

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#### **Screening, Early Detection, and Genetic Risk**

Precision medicine leverages scientific predictive knowledge derived from genetic and genomic testing. Clinicians often have not systematically employed the testing pretreatment and the full scale of differential diagnosis and potential treatments are narrowed. The Centers for Disease Control and Prevention's Office of Public Health Genomics' Tier 1 genomic applications include Hereditary Breast and Ovarian Cancer (HBOC) Syndromes and Lynch Syndrome (LS) as both have significant potential for positive impact on public health based on evidence-based guidelines and recommendations. An estimated, > 40,000 (HBOC = 25,521 and LS = 20,692) of Washington State residents are affected based on general population prevalence. The purpose was to dedicate a cancer genetics, high-risk, and prevention program (GHPP) comprised of a collaborative multi-disciplinary clinical and support team. In 2017, an NCI designated cancer center restructured by co-locating established clinical prevention services (e.g., Breast and Ovarian Cancer Prevention, GI-Cancer Prevention, Genetic Counseling clinics, etc.) at a "Wellness Center" with dedicated clinical and support staff. Along with establishing a high-risk surveillance clinic (HRSC) for patients with hereditary cancer syndromes, the "medical home" model of care encompassed team approach with medical and advanced practice health care providers, nurses, genetic counselors, medical assistants, supportive care (i.e., nutrition, social work), and scheduling support staff. Since 2017, the average annual growth rate for GHPP referrals has been 41%, and this growth is met by increasing provider access by hiring of an APP for HRSC. Specifically, genetic counseling referrals have grown at an average YoY rate of 160% since 2018, and this clinic serves as the "front

door" to the other prevention and high-risk services. Since 2017 until June of 2022 there were 3,947 patients identified with pathogenic variants in hereditary cancer genes that warrants earlier and timely surveillance for prevention and early detection of cancer, along with cascade testing of family members. The broadening of GHPP clinical services to include wellness assessments bridges the gap from tertiary care to primary care. Significant in the saving to health care costs and vastly improving the quality of life for patients and families at high risk for cancer given underlying hereditary cancer syndromes and/or significant family medical histories. Bringing scientific precision assessments to people for prevention and early detection of cancer will significantly decrease cancer incidence, improve prognosis, and overall promote improved health outcomes.

#### **P115**

### **TRAVEL NURSE ORIENTATION**

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#### **Professional Development**

Since COVID-19, the healthcare system has endured multiple challenges, including the maintenance of safe staffing. To maintain staffing and safe patient practices, the hospital has become more reliant on travel nursing. Orientation to the units are minimal as travelers are expected to be functioning as a staff nurse within a week of their hire. Travelers need to have a process in place that will fit the unit's needs but also have the nurse practicing safely in a short amount of time. The purpose of the Travel Nurse Orientation is to help our travel nurses become oriented and comfortable on the unit. The project is intended to help make the orientation process more efficient for travelers and hospital staff. Additionally, this project will lead to increased patient and staff satisfaction and will ensure that institutional policies are followed. Travel nurses have a three-day orientation process on the unit which consists of orientation to the unit, online education modules related to the institution's EMR, and one-on-one time with a preceptor. In addition, each orientee is provided a binder of resources to make the orientation more fluid and concise. Information in the binder consists of available resources, contact information, and mandatory education and nursing competency checklists. The preceptor reviews the binder with the travel nurse who then keeps the binder as a resource moving forward. By using open communication and dialogue with the travel nurses, the program is continuously being evaluated. A survey was also distributed to the travel nurses to rate the effectiveness of the orientation process, along



with suggestions for process improvement. 100% of the surveys distributed stated the orientation was helpful, staff were supportive and welcoming, training was efficient, and staff would renew their contracts. 80% stated that the length of orientation was adequate, and the unit provides clear nursing guidelines. Few surveys responded to the short answer questions that asked for recommendations for improvement. In the future we will ask travelers to fill out the short answer questions. We will also improve upon orientation as needed. Nursing recognized a need for a better travel nurse orientation, thereby developing a resource manual to help remove the knowledge gap.

### **P116** **PULSE CHECK: A TOOL FOR REAL-TIME MONITORING AND MANAGING NURSING WORKFLOW**

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#### **Coordination of Care**

Workflow varies constantly on the oncology unit. This makes staff assignments and teamwork challenging, and contributes to workplace stress. Pulse checks are a tool to help with this. A Pulse Check is a brief targeted survey conducted at frequent intervals and allows for a more dynamic measurement and response cycle. Organizational psychology research indicates that employees who are able to cope with daily job demands are better able to cope with negative events, more productive, more committed to the organization, and less prone to burnout and turnover. Pulse checks are normally deployed at the interdepartmental and managerial level. This abstract describes how we apply pulse checks to improve nurses' coping with daily job demands and manage workflow on a busy inpatient oncology unit. Nursing staff rate their personal work stress levels from 1 (calm and controlled) to 4 (unmanageable). Pulse checks are conducted at 4-hour intervals. Pulse checks may be collected more frequently during particularly hectic days or a nurse may self-report a high score during intervals. A pulse of 3 or 4 will immediately result in staff converging to

help their teammate. Staff were surveyed at one and six months to determine how they perceived pulse checks effected their work. Staff response to pulse checks is very positive. 45% and 73% of staff rated pulse checks as valuable to extremely valuable at one and six months respectively. 95% of staff felt pulse checks increased their awareness of unit workflow. 91% of staff felt pulse checks greatly improved teamwork. 86% of staff felt pulse checks improved response times when they need help. Pulse check scores were analyzed to determine trends in nursing staff's perceived stress. Average daily scores increased during the first several months as staff became familiar with rating their stress levels, then slowly declined as new patterns of teamwork emerged. Pulse check scores have quantitatively demonstrated the impact of staffing changes within a few weeks and are statistically significant at  $p=0.05$ . Pulse checks allow for real-time measurement of nurses' stress. This in turn allows team resources to be deployed efficiently and quickly reduce the overall stress level of the unit. It also allows for accelerated evaluation of workplace changes. Ongoing analysis to optimize data collection intervals and explore relationships with nursing sensitive patient outcomes may yield more benefits.

### **P117** **IMPLEMENTATION AND EDUCATION PLAN FOR MONOCLONAL ANTIBODY CLINIC FOR COVID POSITIVE PATIENTS**

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#### **Coordination of Care**

The arrival of COVID created need to treat cancer patients within a safe and sequestered environment. Virus mutations and subsequent changes in treatment options prompted a structured approach to implement changes, provide education, and support a short-staffed nursing team. Designing an organized, multi-system approach for implementing monoclonal antibody (mab) treatment was crucial due to ongoing challenges including changes in drugs as novel variants emerged; an increase in patient volume; and varied drug allocation. A multidisciplinary team approach was designed to fluidly adapt to these rapid changes. The need for systemic change required partnering with all areas of our ambulatory institution. Pharmacy tracked



drug availability and oncologists helped determine patient acuity and triaged waitlists to ensure ethical distribution of mabs. Clinical operations teams updated resources for provider workflow and patient access. We collaborated with EHR team to update order sets and tip sheets. Parking staff operationalized plans that minimized the patient's footprint in the building by sequestering patients from parking, throughout treatment, and upon leaving. Environmental services implemented direct communication to decrease wait times for cleaning negative pressure rooms. An online centralized scheduling grid of nursing availability informed schedule coordinators. Infection control supported efforts to maximize negative pressure room availability and determine air exchanges in regular rooms ensuring staff safety while treating patients. Frequent clinical guideline updates and staff education were provided based on mab availability. Oncology nurse navigators created smart phrases to streamline information collection from patients to determine eligibility for mab therapies. Clinical Specialists were redeployed to administer therapies when significant numbers of staff were out with COVID and the volume of oncology patients requiring treatment increased. With emerging variants, we saw surge in COVID positive patients and staff. Administration of mab therapies more than tripled from November 2021 (23 patients) to December of 2021 (87) then peaked in January 2022 (151 patients). The multi-pronged approach allowed us to successfully treat hundreds of oncology patients using four different therapies based on variants susceptibility. Challenges that arose during the pandemic prompted innovative, rapid-fire problem solving and frequent changes. Technology was leveraged for education and workflow processes so variability in treatment didn't necessitate workflow changes. Real-time data allowed floor leadership to anticipate waitlists and pivot to alternative therapies when possible or reprioritize patient lists to treat more patients safely and ethically.

## **P118**

### **UTILIZING DEDICATED DISCHARGE NURSE EDUCATORS TO IMPROVE PATIENT PREPAREDNESS FOR DISCHARGE AND PREVENT READMISSIONS ON AN INPATIENT STEM CELL TRANSPLANT UNIT**

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#### **Patient Education and Safety**

Comprehensive discharge education is important for stem cell transplant (SCT) patients due to their complex diagnosis, care coordination, and pancytopenia that continues past discharge. To promote safe care transitions and prevention of complications that can lead to readmission, patients and their caregivers require discharge teaching that includes signs and symptoms to monitor for, how to contact their provider, infection prevention, bleeding prevention, central line care, nutrition recommendations, and general lifestyle adaptations during recovery. The purpose of this project is to evaluate the impact of a dedicated discharge nurse educator position on an inpatient SCT unit. A dedicated discharge nurse educator position was created in 2018. Nurses were self-selected or manager appointed. Two years of bedside experience on the SCT unit and a bone marrow transplant certification (BMTCN) through ONCC were encouraged, but not required. Any patient admitted with an allogeneic or autologous SCT, along with their caregivers, were provided individualized teaching through either a Zoom group conference call or 1:1 teaching at the bedside. Teachings were scheduled in advance and offered twice weekly. Each discharge teaching session is approximately one hour. Interpreter services are utilized as needed to ensure accurate communication and understanding of medical terminology in a patient and/or caregiver's primary language. Repeat teaching is only offered if there is a change in caregiver. Education materials are derived from an evidence-based patient/caregiver education binder created by the institution's Bone Marrow Transplant and Cellular Therapies program. The teach-back method of communication is utilized to ensure understanding of key information. The Quality of Discharge Teaching Survey (QDTS) is a validated tool used to measure patient and caregiver satisfaction with content and delivery of discharge teaching. The QDTS will provide data for patient and caregiver perceived preparedness for discharge, including how to self-manage symptoms post-hospitalization. Additionally, 7-day readmission rates of patients who attended a teaching session will be evaluated. Sustainability of the role has been achieved for the past 4 years through the utilization of a dedicated full time equivalent (FTE). Operationally, the dedicated discharge nurse educator is scheduled for regular combined shifts that include designated time for teaching and inpatient unit break coverage for scheduled staff.

## P119

### ORIENTATION RESUSCITATION; BREATHING NEW LIFE INTO AN INFUSION EARLY-PHASE CLINICAL TRIAL ORIENTATION

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[Oncology Nursing Practice](#)

Early-phase clinical trial programs offer exciting yet challenging environments for staff. Orienting nurse infusion staff to a dedicated early phase clinical trial clinic is overwhelming due to the complexity of multiple study protocols. Having a standardized and thorough orientation is key to successful performance and retention of nurses. The previous program lacked specific measures of success and training materials, which can contribute to staff dissatisfaction and turnover. Early-phase programs must enhance training and orientation processes to address the lack of experience. To address this need, a new orientation program was developed for nurses new to oncology early-phase clinical trials infusion. Current nurses and other clinic managers, of both clinical trials and standard oncology, were consulted to complete a gap analysis. Gaps identified included, lack of oncology and/or infusion knowledge, electronic health record (EHR) orientation, and lack of clinical trial knowledge. It was determined that nurses, especially those new to oncology and infusion, need a structured orientation plan that includes skill checklists, clinical trial orientation, oncology basics knowledge, and shadowing opportunities. A new orientation checklist was developed that included skills needed in the infusion room and EHR documentation. An education booklet was created to teach on cancer basics, oncology medications, infusion reactions, and drug calculation tutorials. After six months of practice, in depth online oncology medication modules are completed. All new nurses shadow standard practice infusion nurses and all clinical trial departments in the clinic. Lastly, the physician of the practice presents a clinical trial lecture and nurses complete standardized online clinical trial modules. As a result of these changes, after orientation and three months of independent practice, nurses report feeling comfortable caring for patients in the infusion room. Additionally, nurses report that the new orientation checklist is a thorough list that addresses the needs of their role in the infusion room. Nurses continue to report the need for more cancer ba-

sics education. To address the continued gap in oncology knowledge, monthly education will be offered to the nurses and the entire staff (coordinators, pharmacy, regulatory, etc). The clinic hasn't experienced any turnover since the new orientation program was instituted. As a result of this new nurse orientation program, this is now being adopted into other partnered early-phase clinical trial clinics. Furthermore, this model is also going to be utilized to other roles within the clinic.

## P120

### CHEMOTHERAPY AND IMMUNOTHERAPY VERIFICATION CLASS

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[Oncology Nursing Practice](#)

Nurses new to chemotherapy are expected to go through an on unit practicum that consists of six order set verifications, administrations, and discontinuations. Given the workload constraints during their shifts, nurses did not have protected time to focus on order set verifications. Traditionally, inpatient units do not typically see the volume of chemotherapy in comparison to ambulatory centers, limiting their exposure. It was taking on average six months for a nurse to achieve independence in chemotherapy administration. During this process, the nurse training would partner with a charge RN or a peer who has been giving chemotherapy for greater than one year. We identified a need to move nurses through chemotherapy practicum more efficiently. The purpose was twofold: to implement protected time with the Nursing Professional Development Specialists (NPDS) guidance to review and obtain signoffs on unit specific order sets; and to expedite chemotherapy/immunotherapy practicum. A formalized two-hour monthly class for inpatient nurses to attend following their obtainment of an ONS Provider Card. Order sets are chosen pertinent to the unit and common disease populations the staff are assigned (i.e. gynecologic, hematologic, and medical oncology). Nurses were instructed on and practiced review of order sets based on hospital policy outlining the 16-step process of chemotherapy verification. Class size is limited to five attendees per two NPDSs. Prior to course implementation, the time frame for new nurses to move through the required practicum was an average of six months. Post implementation, the time frame has reduced to an average of three months. The first two months were designed as a pilot. Both managers and staff found value in the course and "buy in"

was achieved. Developing the course has allowed for protected learning time, additional mentorship by the NPDS staff, and confirmation that the verification process is adhered to. The feedback from the nursing staff has been overwhelmingly positive. Education surrounding chemotherapy/immunotherapy verification required an innovative approach to expedite the practicum. Developing a formalized class allowed the NPDS to facilitate chemotherapy signoffs and to ensure that nursing staff were following the hospital policy for this process.

### **P121 DISEASE MANAGEMENT TEAM (DMT): MOVING THE NEEDLE FOR ONCOLOGY PROGRAM ENHANCEMENT**

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[Coordination of Care](#)

To meet the challenging needs of our diverse and growing oncology patients, our oncology program developed the oncology Disease Management Team(s) (DMT) to effect positive change in the cancer continuum. Cancer care leadership provided the platform for the expansion of the DMT role by establishing an Oncology Quality and Accreditation division. With the guidance of a consulting group and a multidisciplinary team ready to drive improvement, a new nursing role was developed to fill the DMT coordinator position. The nurse coordinator has operational responsibility and works to promote the implementation of evidence-based practices and resolve deficiencies to generate better patient outcomes. The purpose of the DMT is to identify opportunities for performance improvement and programmatic changes in the oncology landscape, coordinate activities with an interdisciplinary team, implement strategies that impact positive patient outcomes and operational practices, and evaluate the success of each initiative. Nurse DMT coordinators discover what programmatic changes are needed, by interviewing key stakeholders for a specific cancer site (providers, nurses, support services) using SWOT analysis. Results are compiled into a strategic plan. Based on feasibility and patient impact, the committee votes for projects to initiate. Projects may align with goals and standards for COC, accrediting bodies, and NCCN. Nurse DMT Coordinators lead project teams, motivated by PI tools, interviewing, and specialized experiences. The DMTs and nurse led DMT Coordinator roles have achieved improved outcomes, both qualita-

tive and quantitative. Project results include increased referrals, patient education, and improved processes for palliative care, rehab services, cancer screening and prevention, and nurse navigation. Success is evaluated based on criteria specific to the cancer type and project goals. Data collection and metrics for evaluation are supported by EHR, chart abstractors, cancer registry, and IT. Qualitative improvement is shown through increased communication with interdisciplinary teams, awareness, and feedback from end-users and patients. Oncology nursing practice can benefit by including the DMT coordinator role and model in their oncology program. This provides a unique opportunity for nurses to practice at top of their scope, utilize the nursing process to initiate improvements for better patient outcomes, and bring professions together to collaborate and solve problems. The DMT structure provides innovative space to create evidence-based smart order sets in EMR, algorithms, patient materials, pathways for access to care, and communication channels to improve efficiencies in a complex healthcare environment.

### **P122 DOES VIRTUAL EDUCATION IMPROVE NURSE ENGAGEMENT IN ONCOLOGY AND CHEMOTHERAPY TRAINING?**

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[Oncology Nursing Practice](#)

To improve overall education and training for oncology nurses, we created new teaching strategies and tested them using surveys and knowledge checks. Simulations with hands-on activities have been proven to help increase nurses' confidence, interest in working with oncology patients, and administering chemotherapy. This year, we added virtual gaming to the curriculum. Due to COVID-19 constraints and limited access to clinical experience, new nurses at our LTACH facility requested more virtual education. This led to the development of virtual gaming to supplement classroom learning and provide an engaging way for nurses to learn about oncology and site-specific policies. In the previous simulation curriculum, oncology nursing topics were covered in a classroom style lecture. The material typically covered in the classroom was adapted to a gaming platform through videos, PowerPoint slides, and interactive questions, with courses like "Intro to Oncology Nursing, Hazardous Medications, + Central Line Care," and "Intro to Chemotherapy Administration for Oncology Nursing." These topics were chosen based

on feedback from oncology nurses.. The first group of nurses completed gaming in person with staff to help. Nurses gave feedback, then subsequent groups were allowed to complete the assigned gaming at home. Nurses provided positive feedback on the addition of gaming to the simulation oncology program. Feedback included gaming was interactive, informative, and interesting. Nurses also reported the use of simulation and gaming together increased their level of confidence in safely administering chemo and caring for oncology patients. One nurse said, "Gaming was a nice tool to review materials prior to simulation and then be able to ask questions in person on the day of sim." The addition of gaming resulted in more engagement, less time spent in the classroom, and nurses being more prepared. Nurses were able to repeat games as many times as they wished, so this allowed them to review areas multiple times. The addition of gaming did not result in a decrease in knowledge retention. With the restraints on classroom sizes due to COVID, gaming has allowed more nurses to continue to participate in educational programs while also being able to promote social distancing.

### **P123 BETTER TOGETHER: A HEALTH SYSTEMS STANDARDIZATION APPROACH TO CHEMOTHERAPY ADMINISTRATION**

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#### **Oncology Nursing Practice**

A rapidly growing oncology service line within a large metropolitan health system identified a need to standardize chemotherapy administration throughout multiple hospital sites to improve patient safety and quality care. Thirteen health system chemotherapy safety errors were identified in 2021 prompting the need for nursing leadership to review the nursing verification process of chemotherapy administration. Multidisciplinary collaboration occurred to implement a system wide standard process for chemotherapy administration. The purpose was standardize the nursing verification process of chemotherapy and decrease chemotherapy administration errors through review of the administration process, policy development, a standardized chemotherapy competency checklist and interdepartmental collaboration with nursing infor-

matics and pharmacy to develop a robust independent chemotherapy verification process in the electronic medical record (EMR). Collaboration between multiple site leaders occurred to review the chemotherapy administration policies from all hospital sites. Leaders identified and reviewed similarities and differences within each hospital policy to develop a system wide policy and administration competency checklist. Review of best practice standards identified a need to develop a new electronic medical record documentation process to improve dual nurse independent verification prior to chemotherapy administration. Nurse educators developed in-services on the new chemotherapy administration process to improve staff confidence and understanding. Nursing chemotherapy champions were identified within each hospital site to support the new administration process enhancing nurse engagement and adherence. Nurse leaders reviewed unit needs and ensured staffing of chemotherapy champions and informatics support during the implementation process. Competency assessment of all oncology nurses administering chemotherapy occurred post implementation of the new administration process to ensure adherence to the updated health system standards. Review of safety data over six months and one year will be performed to identify the impact of a standardized chemotherapy administration process. Collaboration with pharmacy and nurse leadership will be performed to identify cost savings related to decreased chemotherapy waste from verification errors. Operationalization of a standardized chemotherapy administration process demonstrated multidisciplinary collaboration between eight hospital sites. The successful process implementation of an essential nursing practice within cancer centers provides a model standard for other large health systems identifying patient safety issues associated with chemotherapy administration. Multidisciplinary stakeholder approval from eight hospital sites within the health system demonstrated the innovation and teamwork of nurse leaders to improve a vital process in cancer care.

### **P124 LEADERSHIP TRANSITIONS IN OUTPATIENT CANCER CLINICS**

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#### **Professional Development**

In early 2022, the outpatient Blood and Marrow Transplant Clinic experienced significant leadership changes stemming from departures and transitions. Impacted staff included RNs, LVNs, MAs and Administrative

Coordinators who functioned in a variety of roles, from Transplant Coordinator to Clinic Care Coordination. Navigating this transition, including establishing trust and engagement in a complex, fast-paced care environment, was a top priority for new nurse leaders. The public has ranked nurses the most trusted of professional years for several years. Building high trust teams is essential for healthcare organizations to effectively care for patients. Building that same trust in other members of the healthcare team is critical. The clinical team had experienced multiple leadership changes over the past five years, leading to breakdowns in communication, perception of lack of transparency and frustration with delays in problem resolution. Leadership interventions included the following:

- Relationship building, including 1:1 and group meetings to identify and prioritize burning issues, with periodic updates and follow up on actions through high visibility and accessibility
- Effective communication, including rounding, staff meetings, morning huddles and e-mails outlining discussions, next steps and timelines
- Accountability, including leadership and staff mutually articulated expectations for professional behavior, follow up and problem resolution ensuring a healthy, psychologically safe work environment
- Ethical conduct, including transparency in shared decision making and recognition of challenges faced by team
- Expert knowledge, including consulting with subject matter experts such as Human Resources, on job descriptions and role clarification

Through the collaborative efforts of the interim nurse manager, senior nurse leadership and extraordinary nursing staff who are passionate about excellence in patient care and their desire to build a strong team, the team has made great strides, including recruiting and onboarding difficult to fill positions, clarifying work roles and expectations, working with Human Resources to ensure job descriptions accurately reflect the scope and responsibility of positions and peer accountability for professional respectful conduct. Discussion includes to recommend additional research and analysis of guiding teams through major leadership changes and other external stressors. In the words of Brene Brown, “I define connection as the energy that exists between people when they feel seen, heard, and valued; when they can give and receive without judgment; and when they derive sustenance and strength from the relationship.” This is truly the priority of nurse leaders everywhere.

## P125

### RECRUIT AND RETAIN; LISTENING TO THE NEW GRADUATE'S EDUCATIONAL NEEDS

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#### Professional Development

A major challenge in healthcare continues to be the nursing shortage as well as retention. Not only is there a cost associated with retention but a worsening of patient outcomes. Proactively listening to the new nurse graduate's educational needs is critical as we focus on job satisfaction and retention. After analyzing evaluations from new nurses who completed oncology classes, it was evident our teaching strategies did not meet their learning and developmental needs. As a result, our orientation required an overhaul. Utilizing Benner's Novice to Expert Theory, the orientation curriculum and teaching strategies were reviewed and revised. A two-day oncology educator retreat took place to focus on curriculum content and teaching strategies. Class evaluations highlighted a desire for greater focus on clinical skills and less didactic lectures. After researching different strategies, it was decided to develop curriculum utilizing Benner's Novice to Expert Theory. The revised orientation now focuses on the transition into clinical practice utilizing various teaching strategies. For example, Educators now function as clinical instructors on the nurses first day reviewing skills such as the vital sign machine, room set up, bed controls, emergency equipment and the location of commonly used supplies. This time on the unit helps nurture the new nurse as they become comfortable with basic skills in a safe environment. In addition to the clinical instructor time, supplemental novice classes take place utilizing various teaching strategies including case studies, game playing, hands on skills, lectures, and group work. Classes scaffold on each other, allowing the new nurse an opportunity to build on their knowledge and skills in a more structured manner. The revised orientation has been in place for eight months. Utilizing a Likert scale evaluation and comments from new nurses, satisfaction of the revised orientation is positive. The first shift on the unit is reported to be less stressful as a result of the instructor time. The new nurses report improved comprehension of oncology topics and skills after class increasing job satisfaction. Listening to new nurse recruits and responding to their needs is one way to improve job satisfaction and ultimately retention. Nurses seek professional growth and



development and utilizing Benner's model, our new nurses have the opportunity to grow from novice to advanced beginners.

## **P126** **BUILDING A STAFFING PLAN FOR THE FUTURE**

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### **Professional Development**

The Jewish Hospital in year 2021 saw an increase in sitter related needs that were requiring extra PCA/sitter time pulling PCAs that were scheduled for inpatient units to help serve these bedside sitter needs. During this time, we as a hospital were struggling with the number of PCAs we employed to meet bedside care needs not to mention any additional PCAs needed for sitter needs. PCAs were being pulled from the bedside to provide sitter needs on a routine basis leaving units without any PCAs on shifts. In pulling the data (graph A below) to evaluate how much time was spent utilizing PCA needs for sitter hours, we found that our med-surg areas were greatly impacted. On any given day our inpatient units were down as a collective 4-5 PCAs that were needed to provide bedside care not including any additional sitter needs. In evaluating options of how we could tackle this situation, questions came into play regarding how we provide flexibility, increase the number of PCAs we have, and create a pipeline of PCA to RN growth for future nursing workforce needs. In October 2021, a proposal was developed that consisted of creating a float pool PCA department. In this department we allow PCAs to schedule 4, 8, or 12 hours shifts as long as they meet their 36 hour 6-week work requirement. We started off with posting 5 PRN positions. Recruitment for these positions would be centered on nursing students. Nurse recruiters helped promote this opportunity at local school job fairs and it was received well by the nursing students. The first 5 positions filled within a 30-day timeframe. We continued to post positions five at a time and by early spring we had built the float PCA group up to about 30-35 staff. As of July 2022, we have hired 50 float PCAs into the department. Continued quarterly check-ins along with career development plans are completed with this group. The first cohort of 6 RNs graduated in spring of 2022, and we were able to retain them within the organization as RNs. This program has been successful here at Jewish in meeting staffing needs with allowing student RNs the opportunity to gain experience not seen in clinical. We look forward to future growth of this program.

## **P127** **ADVANCING ORGANIZATIONAL ONCOLOGY NURSE COMPETENCY**

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### **Professional Development**

Prior to the pandemic, people receiving intravenous treatments for cancer were admitted to a 42-bed inpatient unit or treated in a 13-bed outpatient infusion unit at Northeast Georgia Medical Center. During 2020, COVID-19 care displaced the inpatient unit and clinical staff. At the same time, the outpatient infusion unit had increasing chemotherapy volumes and increased staff turnover. Many experienced oncology nurses in both areas either transferred permanently to other units or to private physician practices. In 2021, the medical oncology unit was re-established, and positions were filled in the outpatient unit. The challenge of staffing both units with competent oncology nurses began to evolve quickly. First, an assessment of experience and learning needs of the nurses was conducted. As anticipated, over 50% of the nurses were identified as being a novice to oncology care. Although nurses administering chemotherapy and immunotherapy had completed the ONS/ONCC Chemotherapy Immunotherapy course, most nurses felt ill-equipped to manage the care of people with cancer. Safe handling, medication administration, and side effect management were also identified as learning needs. With this information, the inpatient educator, outpatient infusion coordinator, and oncology assistant nurse manager, collaborated with the simulation team to help better prepare nurses for the challenges faced in clinical practice. A review of the literature supported the use of multiple strategies in the development and implementation of oncology competency validation. Workshops were developed to accomplish the following:

- Improve teamwork dynamics between novice and proficient oncology nurses from inpatient and outpatient settings.
- Standardize and advance organizational oncology nurse competency, enhance patient safety, and improve oncology patient outcomes.
- Create a non-threatening way of skill acquisition and confirmation of oncology competency for nurses of all stages of clinical proficiency.

Workshops included the topics of oncology emergencies, hazardous spill management, hypersensitivity reactions, extravasation management, and oncology

quality improvement projects. The methods of learning included simulation with standard patients, escape boxes, lecture, post simulation debriefing, and learner evaluations. Objectives were realized, and the outcomes achieved included 5 workshops held with 23 nurses attending. Learner evaluations reflected that 95% strongly agreed that the objectives had been met. Based on post assessment review and bedside nurse input, future workshop enhancements include the following:

- Increasing the complexity of simulations and escape room boxes for proficient nurses.
- Continued and more frequent collaboration between inpatient and outpatient units.

## **P128**

### **VIRTUAL HEAD AND NECK CANCER SCREENINGS**

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#### **Screening, Early Detection, and Genetic Risk**

Early diagnosis of head and neck cancers are essential to successful treatment and increased survival (Head and Neck Cancer Alliance, 2022). Historically, Northeast Georgia Medical Center has higher numbers of people diagnosed with late-stage head and neck cancers than early stages (NCDB, 2022). Using historical incidence data and acknowledging that head and neck cancer screenings were absent during the COVID-19 pandemic in the community, an idea to perform virtual head and neck cancer screenings was put into practice for 2021 and 2022. To help guide the project work, the PDSA quality tool was utilized (IHI, 2021). In the planning phase, physician and support team members were identified, target population defined, resources and funding secured, technology platforms selected, dates/times secured, event promotion planned, educational materials obtained, incentives acquired, and a participant follow-up plan was determined. For the 2021 screening, hospital employees were recruited to participate which enabled the team to improve methods and processes prior to screening the general public in 2022. For the 2022 screening, uninsured tobacco users were directly recruited to participate from the infusion clinic. Screening appointments were taken through web-based site. Skype and Zoom virtual platforms were utilized for the screenings. Education was provided prior to and after the screening, and print materials and resources were mailed or handed to participants. Costs for the screenings were reasonable at \$10/participant for mirrors, flashlights, materials, and earphones. In-kind costs were \$2,450 and \$1,500 for 2021

and 2022 respectfully. As anticipated, participants and organizers had minor difficulties with sound, video, and internet connections with each virtual platform. Three participants were not able to participate due to connectivity issues but were provided with education and resources. Additionally, connectivity issues added to the amount of time needed for appointments and the ability to schedule additional participants. In 2022, participants were screened at the clinic to mitigate potential technology barriers and connectivity issues. To maintain privacy in the clinic, the use of a laptop with earphones in a private clinic area proved effective. In total, there were 21 participants, and no abnormalities were detected. For future screenings, identification of additional virtual platforms, adding more time between appointments to manage potential technical issues, identifying additional at-risk populations, seeking additional partnerships with physician providers, and pursuing small grant funding to sustain incentives and provide stipends for participation will be explored.

## **P129**

### **INNOVATION THROUGH EDUCATION: PERIPHERAL INTRAVENOUS COMPLICATIONS: CHEMOTHERAPY EXTRAVASATION/INFILTRATION LEARNING MODULE FOR NURSES**

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#### **Oncology Nursing Practice**

Outpatient chemotherapy nurses worked together to develop a modernized approach to educating nurses on managing incidents related to peripheral intravenous (PIV) complications. This was prompted after reviewing a Doxorubicin PIV extravasation incident, which revealed that multiple nurses did not follow recommended PIV extravasation guidelines outlined by the hospital's protocol. This led to a discussion during an evidence-based practice (EBP) team meeting, where a small team of chemotherapy nurses recommended the importance of developing an innovative educational project. It is fundamental that every hospital has a PIV extravasation protocol and that the nursing staff is educated on how to follow these guidelines. The purpose of the Peripheral Intravenous Complications: Chemotherapy Extravasation/Infiltration Learning Module is to increase the nurses' knowledge on chemotherapy PIV extravasation/infiltration preventative measures, clinical practice guidelines, and nursing

protocols. An integrative literature review and best practice implementation emphasizes the importance of teaching nurses' preventive measures on PIV chemotherapy extravasations and infiltrations. An online module utilizing an asynchronous education approach will focus on teaching risk factors and revitalize the importance of preventative measures to increase patient safety. The hospital's Lippincott policies and procedures guidelines acted as a blueprint for this project. An evaluation of unit incident reports revealed that nurses may not have adequate experience, opportunity, or knowledge of how to manage extravasations. To assess a direct measurement evaluation of learners, a ten-question multiple-choice quiz will be provided at the end of the module to test the learner's knowledge on content reviewed in the module. The goal is to have at least 75% of nurses on the outpatient chemotherapy unit complete this education module and pass a quiz within three months of the start date. Education on recognizing patient risk factors is key for preventing PIV chemotherapy extravasations and ensuring patient safety. Team collaboration will include teaching strategies on learned cognitive and behavioral motor skills. Implementing EBP and educating nurses on the importance of PIV chemotherapy extravasation prevention is necessary to not only reduce the number of incidents, but more importantly improve nursing knowledge and increase patient safety. This educational module aligns with the scope of professional practice for nurses by providing unit collaboration opportunities, promoting innovation, and organizing resources into a well-developed and focused educational project.

### **P130** **VENOUS ACCESS CLASSES: CREATING A SPACE TO LEARN**

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#### **Oncology Nursing Practice**

Acquisition of skills and knowledge of vascular access management (e.g., peripheral and central lines) is a priority competency for the oncology nurse. Proficiency of these skills are critical to deliver intravenous cancer treatments and supportive care therapies, as well as preventing complications such as extravasations, central line associated bloodstream infections (CLABSI) and venous thrombosis. Nurses new to these skills are commonly taught in patient care where a favorable learning environment is not always ensured. Additionally, for nurses arriving with experience, alignment to

organizational practice and policies can be challenging if different from their previous practice. The purpose was to create a curriculum to facilitate the process for vascular access skill acquisition and understanding of organizational policies and procedures. A workgroup consisting of a front-line oncology nurse and nurse educators created a curriculum for a three-hour class offered monthly for both peripheral IV and port management. Content for a didactic presentation utilized current organization policies and procedures and national standards from Infusion Nursing Society (INS) and Oncology Nursing Society (ONS). Topics include vein assessment, access techniques, infusate-specific knowledge, infection prevention, and potential complications. To facilitate the transfer of knowledge to skills, learners practice using anatomic simulation arms and port-a-cath chests. Following demonstration of correct technique, proper ergonomics, and discussion of strategies for success, learners are allowed repeated practice to hone skills and become familiar with site specific equipment (e.g., needles, dressing supplies). To ensure "at the elbow" instruction and feedback, a 1:2 or 1:3 instructor to learner ratio is maintained. Further skill practice is reinforced with a 4-hour clinical practicum with patients. Designing a curriculum timed early in oncology clinical orientation, ensures a foundation where confidence, knowledge and skills can be acquired. A small class size is a key component to the experience for the learner and instructor. The upstream approach promotes a "better landing" for new nurses in the high acuity environment of ambulatory cancer care.

### **P131** **OCN TEST PREP: ANOTHER AVENUE TO AFFECT OCN ACHIEVEMENT**

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#### **Professional Development**

The OCN (Oncology Certified Nurse) certification is a nationally recognized standard of excellence and is also an emblem of advanced competency at this National Cancer Institute-designated Comprehensive Cancer Center. This institution supports, encourages,

and financially recognizes this achievement; they offer a formal two-day ONCC Curriculum Review. Many nurses have expressed concern that they are unable to commit to these full day reviews given the current staffing needs. In March 2022, less than 50 percent of nurses in the outpatient cancer center reported OCN certification and alternatives to improve this rate were investigated. The nurse driven Professional Practice Council (PPC), representing approximately 100 outpatient cancer center nurses, was charged with a goal of increasing the number of outpatient OCN nurses by 10 percent by June 2023. An online survey was conducted to gauge interest, identify barriers, and raise awareness. The most significant barrier identified was insufficient time to prepare for the exam, and a majority of survey participants expressed interest in a mentoring program. The PPC partnered with the Clinical Education Specialist to develop a mentoring opportunity by providing a series of short monthly review sessions titled “OCN Test Prep” in which a relevant oncology nursing topic is reviewed by the PPC members. The early morning, 45-minute program, offered both in person and online, includes practice test questions and pre and post test surveys. Presenters provide test taking tips and share personal experiences regarding the exam process. Nursing CEUs are awarded. OCN Test Prep sessions, starting May 2022, have had consistent participation of 10-15 nurses with demonstrated improved proficiency per post test questionnaire results. The mentors have enhanced their presentation skills. Prep session attendees have provided feedback that the review sessions are informative and inspiring. The group sessions have also fostered a sense of community, exemplified by the participants motivating each other to plan their testing dates. This institution celebrates OCN achievement each year in May, at which time the council measures the percent of outpatient nurses who have obtained OCN. This innovative PPC OCN Test Prep provides a less formal, concise format which facilitates participation, enhances test preparation, and motivates test registration. If the 10 percent increase in OCN attainment outcome is achieved, this effort would be sustained and could be scaled for other nurses employed by this Comprehensive Cancer Center.

### **P132 BUILDING FUTURE ONCOLOGY NURSES WITH A NURSE TECHNICIAN PROGRAM**

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#### **Professional Development**

The COVID-19 pandemic created limited hands-on clinical experience for nursing students due to challenging staffing shortages and restrictions of non-essential personnel. Future nurses require engagement with patient care to develop hands-on skills, cultivate clinical judgment and build critical thinking. The role of a nurse technician allows centers to hire students enrolled in an accredited nursing program into a nursing supportive role. Nurse technician programs can help with staffing needs while also providing opportunity for future nurses to learn the care of oncology patients. The purpose was to develop and implement a program for nurse technicians to be incorporated into care delivery for patients in an ambulatory oncology clinical setting. An NCI-designated cancer care center identified an opportunity to leverage nurse technicians originally brought into the temporary vaccination clinic to transition to a formal oncology nurse technician role. The staff education team partnered with clinic leaders to assess needs and feasibility for the nurse technician role and partnered with local universities to recruit nursing students interested in oncology to apply to the program. Upon closure of the vaccine clinic, two junior nursing student technicians were retained and transitioned into hands-on patient care in ambulatory oncology clinics. A comprehensive orientation plan was built for subsequent nurse technician cohorts to assist registered nurses in the specialized care of oncology patients. The first cohort of nurse technicians were hired to assist in a temporary vaccine clinic in March 2021 (6). Two subsequent cohorts were hired in January 2022 (4) and June 2022 (4) to exclusively train into Infusion and Bone Marrow Transplant clinics.

Of the 14 total nurse technicians hired between March 2021 and June 2022, 7 have graduated nursing school and obtained their RN licenses. Upon follow up with these 7 graduates, 5 (71%) were hired into oncology nursing roles upon graduation. Previous nursing supportive roles in the center only included certified nursing assistants and medical assistants. Incorporating nurse technicians is an innovative approach that has mitigated nursing support staffing shortages while providing future nurses with hands-on patient care experience at a time when clinical exposure has been seriously limited by the pandemic. Although nurse technicians are temporary roles while candidates complete nursing

school, the program has demonstrated promising recruitment opportunity to captivate and inspire the next generation of future oncology nurses.

### P133

#### STUDENT NURSE EXTERN PROGRAM IN AN AMBULATORY ONCOLOGY SETTING

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##### Professional Development

There is a well-established student nurse extern (SNE) program for inpatient units at our organization. As healthcare is shifting more to ambulatory sites, it was determined that the program would expand to our NCI-designated comprehensive cancer center sites. The SNE role is a paid job within our organization and therefore they are onboarded as employees to provide patient care within their scope of practice. We want to provide a comprehensive experience for the SNE to see the full picture of oncology care. The purpose was to provide students entering their final year of nursing school an opportunity to rotate through various specialties within ambulatory oncology nursing. This program initially started at one of our outpatient cancer centers on the main campus. Nurse leaders from each department within the cancer center came together and coordinated a rotating summer schedule to ensure the SNE was exposed to all aspects of oncology. The departments covered included: infusion, office practice, imaging (PET/CT, MRI, breast imaging), gamma knife, radiation oncology, and patient screening. This past summer, the extensive SNE program was expanded to the Long Island (LI) Campus. Nursing leadership from the LI campus collaborated with nurse leaders from the Manhattan campus to organize and create this experience for their SNEs. Areas of rotation in LI included infusion, pediatrics, radiation oncology, breast imaging, and PET. The SNEs attend orientation classes, including training on the electronic medical record system to enable them to view the patients' charts and to document vital signs. The SNE completes a competency checklist with their RN preceptor. The SNEs also spend time with the medical assistants to learn their scope of practice and assist on the floor as needed. The

program runs from June through August. The SNEs have been providing overwhelmingly positive feedback to the coordinating nurse leader at the end of the summer. We have received approval for students to continue working one shift per week during the school year to maintain their skills and to assist as needed based on unit acuity. There are many different ways to improve/increase RN recruitment and the SNE program is not only a wonderful educational opportunity for nursing students, but a great way for cancer centers to evaluate potential candidates and recruit talented nurses to work.

### P134

#### INTENTIONAL EMPLOYEE MANAGEMENT USING THE FAIR MANAGEMENT MODEL

Suzanne DeVandry, RN, PhD, Merck Sharp & Dohme, LLC, Rahway, NJ

##### Professional Development

The COVID19 pandemic introduced a business environment that was unstable, reactive, and filled with crisis management. Employees were suddenly thrust into isolation, cut off from their managers, colleagues, family, and other established support systems. Managers struggled to stay in touch with their teams, trying to manage remotely, redefine processes, and ensure business continuity in the face of unprecedented challenges. As we enter the endemic phase of COVID19, we see increasing business and social stability and have begun rebuilding relationships, refreshing strategies, establishing new goals, developing new ways of working, and defining a new normal. Managers should reposition as well, moving from reactive management to intentional management, taking purposeful, deliberate actions to meet newly structured business goals and to enhance employee experience in a flexible working model. These actions may include:

- Redefining job roles and modifying expectations for on-site presence
- Transferring power to employees and increasing autonomy
- Learning new communication styles and developing reflective listening skills that translate effectively in a virtual exchange
- Building connectivity among team members who may have never met their manager or colleagues in person
- Engaging in creative approaches to employee development outside of the traditional corporate setting

Managers should strive to be Facilitative, Aware, Innovative, Receptive (FAIR).



- **Facilitative**—Enable employee autonomy and professional development, help to identify and remove barriers to success, encourage and support learning new skills to address evolving business needs
- **Aware**—Be sensitive to personal biases, stressors, and emotions that may impact interactions with others, be approachable and available, withhold judgement and listen carefully, be authentic and transparent
- **Innovative**—Create opportunities and encourage creativity in others, seek imaginative solutions for emerging challenges
- **Receptive**—Maintain an open mind to the ideas of others, receive feedback with gratitude and embrace opportunities for change, be approachable, have a virtual open door

Managers should lead with intention and mindfulness in a differently structured business environment, using the FAIR management model to reframe the employee experience and equip employees to independently and successfully achieve professional goals.

### **P135 SUCCESSFULLY TRANSITIONING TO A LEADERSHIP ROLE DURING A PANDEMIC**

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#### **Professional Development**

The COVID-19 pandemic has pushed nurses to their breaking point; feeling the need to abandon their current place of work for a less stressful and intense environment. During this time, the oncology nurses focus shifted from being devoted and selfless caregivers to protecting the basic needs of their patients and themselves with minimal resources. Transitioning from Assistant Nurse Manager, to Senior Assistant Nurse Manager, and to my current role as Nurse Manager, during this pivotal point in history, solidified the fact that leadership presence and strategically aligned interventions were crucial to preservation of staff and resources. This abstract is designed to describe interventions nursing leaders can utilize to guide and improve retention and job satisfaction of their nursing staff. In turn, nursing staff may become more engaged and demonstrate genuine holistic care; ultimately reestablishing quality and improved patient outcomes that may have been lost during the pandemic. Crucial to this process was improved communication and transparency, by holding bi-weekly huddles to inform staff of unit and organizational updates. This helped staff to understand the big-

ger organizational picture. Leadership presence on the unit, by being hands-on with both staff and patients, built trust in existing staff relationships. Recognizing staff achievements (promotions, work anniversaries, etc.) and milestones (weddings, pregnancies, etc.) along with creating special days (Preceptor Appreciation Day, etc.) through the use of verbal, written, or celebratory means helped staff feel appreciated and valued. Interventions utilized potentially improved outcomes in retention, satisfaction, and engagement as well as leading to an increased focus on self-care. The use of quantitative and qualitative feedback through one-to-one meetings and Press Ganey results allowed for deeper dialogue and understanding of a staff nurse's mental health and awareness. Unit-level feedback led to advocacy up through senior nursing leadership in the hospital. Ultimately, having an impact on future favorable organizational decisions. Regardless of the presence of a pandemic, there is always a need for hands-on healthcare. Noting the significant staffing losses and decreased morale, there is a need for nursing leaders to shift their focus towards addressing staff concerns and patient concerns equally. Communication, presence, and advocacy play a vital role in nurses providing high-quality care and their leadership supporting them when they need it the most.

### **P136 ESSENTIAL ELBOW SUPPORT FOR NEW NURSES AS THEY NAVIGATE NEW ROLES**

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#### **Oncology Nursing Practice**

Nursing turnover rates have been increasing in recent years, often related to career advancement and travel opportunities. This has created a gap in the proficient nursing experience group. In August 2021, there were 25 nurses with less than 1 year of experience and 5 nurses with less than 1 year of ICU experience. In August 2022, there are 42 nurses with less than 1 year of experience and 11 nurses with less than 1 year of ICU experience. There are currently 15 nurses on new staff orientation and 4 on ICU orientation. This is an increase from 33% of staff with less than one year experience in 2021 to 56% in 2022. In the integrated 8-bed Oncology ICU and bone marrow transplant unit at this NCI-designated comprehensive cancer center, there is a significant increase in the number of nurses with

less than one year of experience. The unit leadership of the integrated Oncology ICU and Bone Marrow transplant units identified an increased knowledge gap in both ICU and Oncology care and the need for on unit clinical support. A proposal was presented to senior leadership for 2 permanent resource nurses to provide support to the staff. The overall goal is to increase the frequency of check-in during ICU and Oncology orientation and provide needed education and oversight of quality improvement initiatives. This opportunity was advertised to all nurses on the unit with the appropriate experience. Two nurses were selected in June 2022 after a comprehensive interview process to serve in this capacity. The division of responsibility was separated to cover orientation oversight and quality improvement, with additional responsibility to provide clinical support and education. The permanent resource nurse role in a unit with an integrated oncology ICU is an effective intervention when looking to provide support to nurses caring for patients with complex oncology and ICU needs. This role and support has had a positive impact on the unit staff and leadership in a short time. The continued success of the role will be evaluated by review of quality metrics, safety events and staff feedback. There are plans to expand the role to other units in the department.

### P137

#### FIVE KEYS TO UNLOCKING EQUITABLE AND EFFECTIVE CANCER PATIENT INFORMATION

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##### Patient Education and Safety

Easy-to-read patient education (PE) helps a person's ability to make good health-related decisions. Only 12 percent of adults in the U.S. have proficient health literacy to make those health decisions (CDC 2021), while the remaining individuals struggle with understanding health information. The U. S. Department of Health and Human Services and the Association of Community Cancer Centers (ACCC) recognize how health literacy must unlock cancer information to positively impact health care decisions with the goal of making PE accessible and actionable. The evolving complexities of cancer care challenges cancer centers to create effective PE that is understandable and supports all people with cancer to adopt and retain new self-management behaviors. There are five keys to creating equitable and effective cancer patient education.

- Understand the relationship between health literacy and health equity. Develop simple teaching tools which will be more accessible to a broader group.
- Assess the reading level of the education with the goal of sixth grade reading level utilizing tool such as Health Literacy Advisor™. If possible, determine the languages used most frequently in your community and engage a translation and or interpreter service within your organization.
- Consider adding a Certified Health Education Communications Specialist (HECS) to your education team. This role is expert in designing and creating education tools and are passionate advocates for patients and health equity.
- Build a "Patient and Family Education Committee" comprised of culturally diverse patients, families, and clinical stakeholders. Members can review PE materials and provide invaluable feedback.
- Implement a content management system (CMS) such as (Drupal, Squarespace) to manage document versions and alert the team to revision due dates. More advanced CMS can "tag" PE documents, videos, etc. for analytics that can demonstrate usage of the PE materials.

In summary, the use of simple language, professionals who identify evidence-based practices, Health Education Specialists who know the patient consumer, and other resources will make your PE materials more understandable and actionable to impact shared decision making between providers and patients with loved ones.

### P138

#### LEVERAGING THE SHARED GOVERNANCE STRUCTURE AND INFORMATICS TOOLS TO SUPPORT NURSES IN PROVIDING CULTURALLY COMPETENT END OF LIFE CARE

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##### End of Life

Culture and spirituality play pivotal roles in patients' medical care and advance care planning (ACP). By learning and respecting patients' cultural and spiritual preferences, clinicians can help guide patients and caregivers through their end-of-life experience while maintaining respect and dignity. Clinicians should be educated on patient cultural preference, and communication at end-of-life care. An essential component of

this education is the knowledge that patient cultural and spiritual preferences cannot be stereotyped and must be patient focused and individualized. By using an interdisciplinary approach to education, the literature shows outcomes including enhanced clinician competence and patient experience. Following a review of best practices from the literature a comparison was made to available resources at a metropolitan NCI designated cancer center. Although resources exist to support staff, a learning needs assessment revealed many nurses were unaware of how to access and utilize available support. Educational content focused on raising awareness was developed and delivered by leveraging the shared governance structure. Pre-intervention surveys show 32.8% of nurses were unsure of appropriate resources, while post-intervention data revealed 0% of nurses remained uncertain. In addition to raising awareness of resources, informatics support was built into the electronic health record where it could be most easily accessed. Reference material for culturally competent care was linked directly into areas of the chart focusing on spiritual assessment, resulting in a 200-fold increase in site visits for these previously under-utilized tools. The interventions performed as part of this hospital wide initiative give nursing staff the tools to have meaningful conversations and provide care in accordance with the patient's expressed preferences.

### **P139** **ENSURING SUCCESSFUL COMPLETION OF SKILL VALIDATION DURING ORIENTATION UTILIZING A DEDICATED INSTRUCTOR WITH EDUCATIONAL EXPERIENCE**

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#### **Oncology Nursing Practice**

At the end of orientation, nurses at two inpatient oncology units providing care to hematologic malignancy patients are expected to be competent and independent with a variety of specialized oncology nursing clinical skills. These specialized oncology nursing skills include administering chemotherapy, vascular access devices (VAD), cardiac monitoring, blood and bone marrow transplants (BMTs) and more. Part of completing orientation requires submitting checklists indicating that the preceptee validated these skills. Many of these checklists are not completed at the end of orientation because the preceptee does not sign them or because nurses do not have the opportunity to complete the skill during orientation. The project, led by

the unit preceptor committee, designed a 'skills day' to be built into the new nurse orientation timeline to improve compliance with skill validation and ensure that educational experiences are consistent and structured. This skills day includes shadow time with a nurse in BMT outpatient clinic, attendance at the BMT patient education class and a hands-on skills session, led by a senior clinical nurse on the unit. Each nurse shadows an outpatient nurse for 5 hours in the morning where they sign off chemotherapy, VAD, blood, and BMT products. In the afternoon, a senior clinical instructor supervises cohorts of 1-4 new nurses on the inpatient unit to complete other skill validation. All outstanding skills are completed during this day. This time offers the new nurses a safe learning environment to practice skills without the stress of providing patient care and an opportunity to discuss issues as a cohort and learn from others. Chemotherapy, VAD, cardiac monitoring, blood administration and BMTs require 3 times to be signed off. All the nurses who went through the skills day were signed off on chemotherapy and blood administration at the end of their orientation. Only 6 of the 29 nurses were signed off on 3 BMT infusions but 17 of the 29 nurses (58%) were signed off on at least one BMT infusion. Providing dedicated time for skill validation on the unit with an instructor improves completion of required skills and is well received by nurses. At this time, we are surveying the nurses who completed the skills day for feedback. Based on this feedback we plan to create a standardized list of skills that should be included in this skills day.

### **P140** **CLINIC SPECIFICS: A BLUEPRINT FOR NURSING COVERAGE**

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#### **Oncology Nursing Practice**

At this NCI designated, comprehensive cancer center, regional surgical services were initiated to bring oncologic specialty services to our local community. Our team has nine different surgical specialties at our regional site. This is very convenient for patients but challenging for nurses. Now, we must maintain our expertise while working across multiple different services. Nurses at our main campus maintain coverage under one specialty. Our purpose is to provide comprehensive cancer care locally with nursing staff that can migrate between surgical services while keeping patient care consistent with our counterparts at our main

campus location. We developed clinic specifics for each surgical service that we keep in a shared drive to make accessible to each nurse. Clinic specifics include everything from contact information of office staff to how each specific surgeon performs a procedure. Procedures in our clinics range from a simple biopsy to processing an oncotype for risk analysis. We link our Nursing Policy and Procedure Manual, so each nursing task follows our hospital's strict guidance and ensures the care given to our patients is the same across the board. Clinic specifics provide a blueprint for working in each surgical service. Our nurses take pride in the ownership of these 'manuals' and update them often to match the latest evidence. We rely on them heavily as cross-coverage is second nature to our team of surgical nurses. Now we have a way for any one of our nurses to cover any service. We also see the benefits that this could provide for nurses working for multiple physicians in the same specialty. Our staff members feel confident while working across multiple surgical clinics knowing that they have the latest information to reference. Cancer institutions continue to grow to provide care closer to our patient's homes. Here, this has pulled one surgeon from each specialty to our regional site. It would be impossible to be an expert in all nine areas, however we still need to deliver the same care our patient would receive at any location. Creating a space where nurses feel comfortable working outside of a specialty that may not be their own is imperative to great oncology care. We know that this method can help nurses across any expanding institution.

#### **P141 ONBOARDING EXPERIENCED NURSES TO A BONE MARROW TRANSPLANT AND ONCOLOGY INTENSIVE CARE UNIT**

Shawnette Graham, MS, RN, OCN®, NE-BC, BSW,  
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##### **Professional Development**

The past two years have resulted in challenges and opportunities in nursing. One of the opportunities for experienced nurses were to branch into other specialty areas of interest. Like other units, our Bone Marrow Transplant and Oncology Intensive Care Unit experienced an increase in nurse vacancy rates as staff left to travel or find other job opportunities. Hiring experienced nurses without prior Oncology experience or from other Oncology areas showed to be challenging in ensuring a successful transition in the allotted onboarding timeframe. Feedback from new hires and our preceptors were that the onboarding process for experienced nurses did not organize information in a man-

ner that would assist the preceptee in progressing from knowledge to evaluation. Our program had an excellent oncology internship for graduate nurses, however experienced nurses beginning their orientation "off cycle" resulted in disorganization of content and lack of clarity on steps for the preceptor to complete. The purpose of the project was to ensure a successful and efficient orientation of experienced nurses to a complex oncology patient population. New employee education materials were gathered or created to provide the preceptor with tools to use for training. Experienced nurses have a four-week onboarding to the BMT unit. The education content was divided among the four weeks that started with basic nursing knowledge, such as fall prevention, modified to fit the practice expectations of BMT advancing to week four that included complex patient care of Chimeric Antigen Receptor T (CAR T) cell toxicity management. The ICU orientation was organized by patient care needs to encompass all resources required for successful training. If the patient was on a ventilator all checklist, policies, and guidelines were organized in that section. The clinical coach checklist that outlined the advancement was located on Teams and with hyperlinks embedded for quick access to policies and online resources. There was an overwhelming appreciation from preceptors for the organization of the content, standardization of onboarding, and having the resources available during orientation. New hires had a clear outline of content they were expected to demonstrate competency in and felt the onboarding process was very smooth. If the preceptee was not progressing as intended, it allowed for early recognition of further education needs to prevent orientation delays.

#### **P142 CREATING A CULTURE OF SCHOLARSHIP: REIMAGINING NURSING RESEARCH AND EVIDENCE-BASED PRACTICE IN A COMPREHENSIVE CANCER CENTER AFTER COVID**

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##### **Oncology Nursing Practice**

The COVID pandemic posed significant challenges to oncology nurses and accelerated nurse burn-out and high turnover rates. Nursing research and evidence-based practice projects were hindered by

COVID restrictions. This program describes a comprehensive cancer center's initial approach and ongoing efforts to reimagine and reinvigorate nursing research and evidence-based practice programs in the aftermath of the COVID pandemic. We implemented an iterative project management approach to reimagine and reinvigorate the nursing research and evidence-based practice program. During the project initiation phase, we created our vision, conceptualized our approach, and communicated the vision to important stakeholders within the organization. Feedback was encouraged and incorporated into plans to move forward. During the planning phase, we identified priority goals with performance indicators for the upcoming fiscal year. Team-building activities, such as a department retreat, were held to increase collaboration among team members. The evidence-based practice program was revamped with plans to redeploy specific activities to provide further support for evidence-based practice projects. We initiated a Delphi Study to identify oncology nursing research priorities and build consensus regarding their importance. The findings will help guide our future nursing research efforts. Communication strategies to increase the visibility of nursing scholarship across the organization were executed. Our vision is to, "Create a Culture of Nursing Scholarship," through quality improvement, evidence-based practice, and nurse-led research endeavors. The evaluations from the department retreat indicated that this was highly effective for team building and helped create a cohesive vision. The Delphi Study will be conducted in the upcoming months, along with plans for Nursing Research Grand Rounds, a Nursing Research Journal Club, and Nursing Research Seminar Series. The evidence-based practice program is still undergoing revision, but components will be rolled-out in the coming months. Communication, stakeholder engagement, and plans for an iterative evaluation and management process are key to reimagining and reinvigorating nursing research and evidence-based practice after COVID. The organization and Division of Nursing have fully supported these activities through leadership guidance and the allocation of necessary resources, including personnel. Our organization is uniquely positioned to become a bedrock for advancing oncology nursing science and clinical practice. Creating a culture of nursing scholarship is vital for the discovery and advancement of knowledge that optimizes health and promotes well-being across the cancer care trajectory.

## **P143**

### **COMPASSIONATE CARE BOOKLET:**

## **PROVIDING EDUCATION TO PATIENTS & FAMILIES AT END-OF-LIFE**

**Emily Hagens, MSN, RN, OCN®**, Brigham & Women's Hospital, Boston, MA; **Lauren Willard, MSN, RN, OCN®**, Brigham & Women's Hospital, Boston, MA; **Maya Sullivan, BSN, OCN®**, Brigham & Women's Hospital, Boston, MA; **Kayleigh Wright, BSN, OCN®**, Brigham & Women's Hospital, Boston, MA; **Gina Sinacola, BSN**, Brigham & Women's Hospital, Boston, MA; **Sarah Houston, BSN**, Brigham & Women's Hospital, Boston, MA

### **End of Life**

Medical Oncology nurses frequently provide end-of-life (EOL) and comfort-driven care for patients. EOL care planning involves collaboration across several interdisciplinary teams included: Oncology clinicians, Pain and Palliative physicians, Spiritual Care services, and Social Work to provide this complex and nuanced care. Patients and their loved ones often encounter the unknown when entering this stage of their medical journey, leaving them with many questions and concerns about what this stage of life will bring. Given the sensitive nature of this transition, nurses have reported feeling unsure or lacking confidence on how to approach these conversations to best support their patients and families. We identified a potential need for an educational tool that nurses could present to their patients to allow them to provide more comprehensive care at the end of life. Our aim with this project was to create a tool with information from multiple disciplines to guide nursing staff in educating patients and families on what to expect at the end of life, and to assist with identification of resources outside of the nurse's general knowledge. In collaboration with Social Work, Spiritual Care services, and physicians from Oncology and Pain and Palliative Services, a booklet was created outlining the aims of end-of-life care, what to expect, as well as answering common questions that patients and families often have regarding this stage of their medical journey. This booklet was the rolled-out as a pilot on a 30-bed inpatient Oncology unit in May 2022. Pre-survey data collected regarding nursing staff's comfort level with educating on EOL care supported interest in an educational resource for nursing staff to use with patients and families. Data collected demonstrated nurses who completed the survey reported varying levels of comfort educating patients and families on the signs and symptoms of end-of-life care. A majority of respondents reported feeling comfortable use a booklet as a teaching aid to help guide discussions with patients and families regarding end of life. Post-survey data is being collected September 2022



– November 2022. Results from the post-survey are pending to evaluate the effectiveness of using a booklet as an education resource for empowering nurses providing EOL care and education. An interdisciplinary perspective was used to source content for the development of the compassionate care booklet for end-of-life care content.

#### **P144**

### **EXPANDING ACCESS TO WRITTEN EDUCATIONAL RESOURCES IN SPANISH AND VIETNAMESE**

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#### **Patient Education and Safety**

The Agency for Healthcare Research and Quality (2020) offers the Health Literacy Universal Precautions Toolkit 2nd edition. Tool #9 recommends that written materials in patients' preferred languages are available. A private ambulatory Medical Oncology practice in Houston, TX serves a diverse population with high percentages of Spanish and Vietnamese speakers. A nursing workgroup was convened to assess the gap in available patient education literature for persons with limited English proficiency (LEP). The nursing workgroup consisted of a nurse practitioner, two staff nurses, a quality improvement nurse, a nursing educator, and a nurse navigator. The group compiled and reviewed all internal patient education documents. The nurses performed a small systematic review of publicly available websites, evaluating for content, readability, plain language, visual appeal, and available translations. The workgroup aggregated internal and external data and found that translations of oncology specialty information as well as guidance for general self-care from available resources for LEP were inadequate. Deficits in valid resources were particularly noted for Vietnamese speakers. Most of the websites investigated did offer limited Spanish material. The workgroup proceeded to address identified gaps in resources by selection of key internal educational documents requiring translation. They enlisted the assistance of a trusted translation service for transcription of those documents to Spanish and Vietnamese to close the gap and achieve the goal of standardized education for the patient pop-

ulations. The critical documents included patient education on pre-medications, symptom management, central venous catheter care, lists of reputable websites for language preference, and a comprehensive practice packet "A Guide for Your Journey" addressing multiple aspects of care during treatment. Providers, nurses, and patients report high satisfaction with the language appropriate documents since the implementation of the expanded resources. Widely available written patient education for LEP remains sparse, especially those focusing on medications, regimens, and disease-state information. More Spanish education tools than Vietnamese resources are available. The workgroup examined the use of automated translation services to expand available education tools. The workgroup has limited resources to verify accuracy for each so continue to use sight translators, staff, and interpreter services to verbally translate unavailable written education. Written literature in Spanish and Vietnamese narrows the health literacy gap for two patient populations.

#### **P145**

### **IN-PATIENT NAVIGATION/CARE COORDINATION LEADS TO MULTIPLE PROCESS IMPROVEMENTS**

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#### **Coordination of Care**

Out-patient navigation of patients is common practice while in-patient nurse navigation/coordination is not. Creation of this position led to significant process and education improvements. The purpose was to utilize a hospital coordinator position to drive process improvements and education. Weekly multidisciplinary chemotherapy reviews were implemented by the coordinator. Participants included the MD, APRN, office staff, nursing, administration, pharmacy, case management, rehabilitation services, supply management, dietitians, vascular access, out-patient infusion, emergency department, research and music therapy. Regimens were reviewed and turnaround times were calculated. The data was used for larger process improvements. Pathways were created with roles and responsibilities for unusual chemotherapy administration scenarios where when chemotherapy is given off unit (ICU and stroke unit). Bed placement pathways were created for admissions of patients that enter the ED with a chemotherapy pump and patients participating in a research study. This also included out-patient rituximab initiative in which the nurse coordinated with the office, infusion center and hospital to

schedule the patient to receive their rituximab outpatient and remaining regimen inpatient. The position lead education to hospitalized patients and nurses to successfully navigate the program; including annual emergency simulations. Improvements included a reduction of door-to-drug turnaround times by an average of 7.5 hours which is a 60% reduction in turn around times. Prior to the ED chemotherapy pump admissions placement pathway, emergency room chemotherapy pump admissions placement initiative 12% of admission were placed on the chemotherapy floor and 86% post initiative. Prior to the outpatient rituximab initiative, 100% of the rituximab in mixed regimens such as REPOCH and RICE were given in-patient. Post initiative 84% of the rituximab was given outpatient with an approximate drug cost savings of \$40,000 per patient. The average length of stay savings was 1.57 days per patient. With the reminders of the in-patient navigator, there was 94% adherence regimen appointments. The yearly emergency simulation training scores for all participants, post-training questionnaire scores were significantly ( $p < 0.0001$ ) higher than those observed prior to the session, i.e.,  $95.53 \pm 0.96$  vs.  $74.07 \pm 2.09$  (mean  $\pm$  SEM), representing a learning gain of 36%. A unique in-patient coordinator/navigator position can lead to process improvements. These include reduction in turnaround times, decreased length of stay, costs savings, proper bed placement, and measurable education gains. Out-patient navigation is common practice while in-patient coordination is not.

#### **P146 NURSE CREATED LEADERSHIP MENTOR PROGRAM LEADS TO INCREASED CONFIDENCE LEVELS AND RETENTION**

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Professional Development

Mentorship programs have been shown to greatly increase retention. This is especially important with the significant increase in nursing turnover related to the COVID-19 pandemic. The purpose of this project was to determine the effects of a nurse-initiated leadership mentor program on the organization's leadership competencies. A nurse created and led leadership mentorship program for nurses was initiated in order to improve confidence and increase retention. The program will included: 11 mentors including the CNO, assistant CNO, directors of nursing, and senior-level nursing managers. There were 22 mentees in the first cohort consisting of new managers and assistant nurse managers. Each participant if given a 65-page program book.

The structured mentorship program lasted 6 months and required at least 8 meetings. The meetings will consisted of the organization's leadership competencies, a self-reflection activity, 3 open-ended question and 3 journaling activities. The mentors will assisted mentees to develop 3 career goals with long-term and short-term actions. The effectiveness of the mentorship program was determined by a questionnaire that rates self-confidence in areas of leadership competencies, self-evaluation, intention to stay, mentor skill, networking and more. The 32-item questionnaire will be completed by the mentors and the mentees before and after initiation of the program. At the conclusion of the mentorship program, pre- and post-program scores were calculated. For all participants, post-training questionnaire scores were significantly ( $p < 0.0001$ ) higher than those observed prior to the session, i.e.  $90.05 \pm 7.43$  vs.  $75.14 \pm 9.77$  (mean  $\pm$  SEM), respectively, representing a learning gain of 15%. Retention rates of the participants at the end of the 6-month program is 97%. A nurse-directed mentorship program will be created to develop self-reflective leaders and increase retention. Confidence increased in the areas of leadership competencies, self-evaluation, intention to stay, mentoring skills, networking, and more. Participant retention will be tracked for 2 years. The next cohort will soon begin the program. A six-month leadership mentor program with a 65-page book can be adapted to the leadership competencies of any facility. The program is self-explanatory and easy to implement. This will help increase leadership skills, self-confidence, and retention.

#### **P147 IMPLEMENTATION OF A STANDARDIZED ORIENTATION FOR A BONE MARROW TRANSPLANT ONCOLOGY CARE ASSOCIATES THROUGH THE CREATION OF A TRAINING BINDER**

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Oncology Nursing Practice

The current standard orientation for Oncology Care Associates (OCA) on a Bone Marrow Transplant (BMT) unit lacked education about BMT patients. Standard handoff information to nurses was also lacking the depth of information needed to care for the patient. It was noted that each OCA had a different experience

with orientation due to lack of standardized training. A standardized orientation for all BMT OCAs was requested by staff and leadership. The purpose of this project was to implement a standardized orientation for OCAs using an orientation binder and education regarding BMT Patients. The improved orientation will help mitigate errors, improve customer satisfaction, safety, and create confidence within the OCA. Orientation resources were provided in a standardized unit specific binder. The standardized binder was created to include presentations on how to safely care for the BMT population, a brief interlude on BMT process as well as treatments and side effects expected in BMT patients. In addition to the educational information quizzes related to content, tip sheets on how to be a successful OCA on the unit and checklists were included to be completed by designated RN/OCA preceptors. The BMT education binder is reviewed on the first day of orientation by a trained preceptor to explain the expectations related to BMT standards of care. Standards of care continued to be reviewed each day of orientation with the OCA. Each OCA undergoing orientation completed an abnormal vital sign quiz, OCA power-point quiz, hospira pump validation, and hourly rounding validation by the end of their orientation period. A post-orientation survey was provided to continue to improve the orientation process. Each OCA orientee meet with the preceptor and supervisor at the end of the orientation to validate they are meeting the goals of orientation and verify the completeness of the orientation binder. During the past year, 4 new OCAs have completed the enhanced orientation program. Using the feedback from the post-orientation surveys some education and processes have been changed. Overall, the feedback from the new hire OCAs is positive. Staff on the unit have noticed a positive change in the information that is communicated regarding patients. OCAs seem more comfortable and competent in providing care to the BMT population. Standardized orientation is important in achieving the goal of having all staff being competent in the care of the BMT population.

## P148

### BUILDING RESILIENCE BY CREATING A PROFESSIONAL DEVELOPMENT PLAN

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Professional Development

Oncology nurses are experts at caring for patients but often struggle to cultivate their own professional development. Nurse leaders and educators spend countless

hours are spent training and supporting their colleagues, but they often lack personal development plans and mentors. Without clear professional growth direction, many oncology nurses are experiencing burnout and leaving the profession. Healthcare is experiencing “the great resignation” as an alarming 1 in 4 workers resigned in 2021. Creating a professional development plan is key to a sustainable oncology nursing career by building resilience. Oncology nurses need to know why professional development is vital to their careers and helping others. A development plan requires constant reflection and insight into new opportunities to strengthen skillsets. In addition, mentorship is an important way for nurses to experience professional growth. Subject matter will include self-reflection questions, identifying skillsets for improvement, setting measurable goals, and how to evaluate outcomes. In addition, nurses will learn about formal and informal mentorship and various growth opportunities for oncology nurses such as writing, speaking, leadership, and entrepreneur mentorship programs. The goal is for nurses to develop or refine written professional development plans and consider engaging in a mentorship program. Analysis of our speaker and writing mentorship programs show nurses experienced “a renewed passion toward the oncology profession.” Results from the speaker mentorship program show mentees are now mentoring other nurses or fulfilling their personal development goals. For example, one mentee facilitates ongoing mindfulness meditation courses for professionals and patients with cancer. Another mentee is leading a multisite cancer program and writing to share her knowledge with other oncology nurses. “Mentors can leave a legacy by helping others in their professional growth,” says one seasoned mentor. Engaged oncology nurses committed to professional growth are vital to improving outcomes for patients with cancer as well as to career satisfaction and nursing retention. In sharing lessons learned on professional growth and mentoring, the goal is to encourage other oncology nurses to seek their professional development opportunities and continue in the rewarding field of oncology nursing for years to come.

## P149

### MANAGEMENT OF RITUXIMAB REACTION FOR NOVICE ONCOLOGY NURSES: AN IN-PERSON EDUCATION PROGRAM

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### Oncology Nursing Practice

The COVID-19 pandemic had a profound impact on the healthcare field and negatively impacted the onboarding experience of new graduate nurses. (statistics). At NewYork Presbyterian: Weill Cornell Medical Center, the Magnet supported Nurse Residency Program was done virtually. Virtual learning greatly decreased the amount of hands-on training that was provided to previous nurse residency graduates. As a result, new graduate nurses voiced that they did not feel comfortable administering Rituximab and would benefit from a skills training session. The purpose of the program is to increase novice oncology nurse confidence and knowledge in Rituximab administration and reaction management by 15% through attendance of a nurse-led education program. Expert hematology/oncology nurses and leadership developed an in-person education program to educate the novice nurses in safe rituximab administration and reaction management. Reaction management included rescue medication, pertinent labs, intravenous vein placement, oxygen titration and escalation of care. Formal written education was followed by mock situations and hands-on learning. Novice nurses' experience with the program was evaluated using an electronic survey. Nurses evaluated themselves based on Brenner's Stages of Nursing Development from novice to expert. Post-surveys showed 56% of nurses deemed themselves competent or higher when caring for a patient receiving rituximab. Designing an in-person education program with high-volume oncology emergencies

### P150

#### ONCOLOGY 201: NOVICE NURSE HEMATOLOGY FOCUSED EDUCATIONAL SUPPORT PROGRAM

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#### Professional Development

A nurse's first year has the potential to be a challenging transition, due to demands of the role, global staffing shortages, and the aftermath of the COVID-19 pandemic. COVID-19 transformed healthcare and training the future generation, with the rise of virtual learning that has surpassed in-person instruction. Nursing education shifted to a primarily virtual format, reducing the amount of time students spend with hands-on patient learning. In 2022, nurses on the oncology service

line noted the need for tailored oncology education for novice nurses with less than 2 years of experience. The purpose of the program is to increase novice oncology nurse confidence, knowledge, and skill proficiency by 15% through attendance of a nurse-led education program. Staff nurses and leadership identified the need for supplemental formal education to enhance the knowledge, clinical skills, and confidence of the novice oncology nurses beyond what was received during onboarding. A pre-survey was sent to all 30 novice nurses to obtain a baseline assessment. Survey results guided the lesson plan development. A task force of expert oncology nurses developed an education program: Oncology 101 and 201. The 6-hour sessions included lessons on hematology/oncology, post-BMT & CAR-T complications, end-of-life, and oncologic emergencies. 75% of nurses on the oncology service line novice nurses attended the program. Post-surveys were sent to all participants at three intervals: immediately after the program and then every 2 weeks for a total of three data points. Post-surveys showed increased perception of knowledge as competent and above: 37% increase in confidence, 28% increase in BMT knowledge, and 47% increase in emergencies. Positive feedback from novice nurses included "100% this was the most helpful learning experience. It made me feel much more confident being a nurse" and "The open discussions and hands on practice especially after having some experience on the unit really solidified my knowledge". The educational sessions fostered a nonjudgmental environment of conducive to learning and growth in our novice nurses. The sessions provided a space for nurses to develop strong foundational skills to critically solve scenarios, which in return enhances patient care and nurses' confidence levels.

### P151

#### ADDRESSING THE AMBULATORY ONCOLOGY NURSING SHORTAGE BY ADAPTING A STANDARDIZED ORIENTATION TO EACH INDIVIDUAL

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#### Oncology Nursing Practice

Since February 2020, it's been estimated that 20% of healthcare workers have left their positions, and approximately 24% of nurses will leave their position within a year (NSI, 2022). In our ambulatory infusion center, we had approximately 60% turnover in staff

between 2020-2021 due to retirements, transfers, or transitions into other positions within the organization. Concurrently we created more 24 and 32-hour positions for staff satisfaction and retention. Due to the ongoing nursing shortage and challenges recruiting experienced oncology nurses, we recognized there was an opportunity to adapt our orientation process, based on our current staff (who had limited experience in mentoring new nurses), and each new hire's level of oncology nursing experience. The objectives for this project were to 1) review and critique our past orientation process; 2) create a standardized, yet individualized, process for onboarding of staff based on experience; and 3) provide tools for mentors. Intervention: While the oncology CNS took the lead in this project, feedback was solicited from various stakeholders (e.g., director, manager, charge nurses) as well as staff that were hired just prior to this process. Components that were developed included a competency self-evaluation tool, orientation checklist, revised RN job specific initial skills competency assessment for Oncology/Infusion, milestone map, mentoring responsibilities, and a binder to include pertinent general information (e.g., policies and procedures, oncology practice care, and workflows) with additional training materials for nurses new to oncology. This process allowed us to clarify pertinent training needs, and to set expectations for continuous learning ~ with specific milestones for the initial three months. Information gained from training nurses with limited or no oncology experience, then soliciting their feedback involving additional strategies for supporting novice nurses ~ was invaluable. Engaging our staff in building basic expectations, sharing new documents, and apportioning mentoring responsibilities has had many positive outcomes. Creating ideal assignments for learning in ever-changing schedules was challenging but has enhanced communication amongst staff. Less-experienced nurses in the department also joined in the process by identifying opportunities for specific learning experiences. As a result, the commitment to new employees' success and enhanced teambuilding has been strengthened. Summary: While a standardized approach to onboarding in the ambulatory oncology setting is crucial, it is still imperative to adapt the orientation to each individual's experience level and needs.

## P152

### IMPLEMENTATION OF AN ONBOARDING MODEL IN AN OUTPATIENT ONCOLOGY INFUSION CENTER: INCREASING NURSE SATISFACTION, KNOWLEDGE, AND CONFIDENCE

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#### Professional Development

In an NCI-designated Comprehensive Cancer Center's outpatient Infusion Center (IC), the introduction of a structured onboarding design consisting of a Tiered Skills Acquisition Model (TSAM) has significantly impacted the onboarding process. When the pandemic resulted in a challenging workforce, it allowed our unit to expand our hiring pool to experienced Registered Nurses (RN) without an outpatient infusion or oncology background. Prior to the implementation of the TSAM, an unstructured training program consisting of 7-12 training days and up to 5 different preceptors per orientee, resulted in decreased preceptor and orientee satisfaction. The purpose of this IC project was to successfully implement an onboarding model based on a TSAM to increase nurse satisfaction, knowledge, and confidence. Preceptor preparation included attending a 4-hour Precepting with Pride program. The development of the onboarding educational content was completed by the unit-based educator. During the departmental orientation, a pre-implementation knowledge and confidence survey was completed prior to the first education. Orientees participated in 4, weekly, 90 minute, off-unit educational and skills sessions. Non-oncology and oncology disease processes and their respective medication regimens were strategically grouped and aligned with the on-unit preassigned patient assignments. Nursing skills increased incrementally from simple to complex. Orientation days were increased to an average of 15 shifts with evaluation for more training days as needed. A post-implementation satisfaction, knowledge, and confidence survey was completed at the end of the orientation. Prior to the implementation of the onboarding model, 40% of surveyed RN preceptors (n=15) reported dissatisfaction in their own new hire unit orientation and 60% dissatisfaction in the pre-implementation onboarding model. Post-implementation, surveyed RN preceptors (n=15) reported 93% satisfaction in the new onboarding model. Pre-implementation, orientees (n=10) scored an average of 6.6 out of 15 correct responses in a unit developed oncology knowledge survey compared to an average of 12.4 correct responses post-implementation. Orientees surveyed (n=10) reported 100% satisfaction in the new onboarding model. Pre-implementation, 50% of orientees surveyed (n=10) felt confident in their knowledge of oncology medication and administration compared to 100% post implementation. The implementation of the onboarding model based on a TSAM not only provided increased preceptor support,



but also increased orientee knowledge and confidence resulting in increased satisfaction. This onboarding model may serve as a template for other IC's struggling with an unstructured onboarding program.

### **P153**

#### **MULTIDISCIPLINARY CANCER CARE MODEL: PROGRAM DEVELOPMENT AND EVALUATION OPPORTUNITIES**

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##### **Coordination of Care**

Oncology care, by its nature, is complex and requires an interprofessional team of specialized staff. Multidisciplinary care (MDC) recognizes these elements and facilitates collaboration resulting in improved care coordination, enhanced likelihood of delivering optimal multimodality therapy, and ultimately improved patient outcomes. Oncology nursing plays a pivotal role in implementing this model as collaborative partners on the multidisciplinary team. A White Paper describing the components of the multidisciplinary care model was developed initially to share with network partners. However, the paper was dated and did not include relevant program information and implementation strategies. During the year-long revision process, which was facilitated by nursing leaders, experts from across the institution, including a variety of support services, facilities and space planning, research, and downstream services contributed updated information. While the White Paper was being re-written, the Clinical Operations leaders also identified the need to objectively evaluate potential partner implementation of MDC. As a result, guidelines were developed, including defining appropriate patients for MDC, disease-specific multidisciplinary access algorithms, and quantitative metrics to measure MDC desired outcomes. Additionally, leaders expressed interest in developing a tool that would assist in assessing the effectiveness and maturity of a multidisciplinary program. A comprehensive literature search was completed, and a tool developed by the National Community Cancer Network (NCCN)

was identified as a potential instrument. Conversations have begun with the authors, and the team is hopeful a collaborative agreement can be reached to modify and implement the tool since it has the versatility to be used both as a self-assessment instrument and as a component of the evaluation process. Maintaining consistently high percentages of MDC with a goal of 100 percent is essential to implementing and sustaining quality cancer care. The use of these tools will not only guide the success of implementing MDC in programs within large academic settings but also can be replicated for quality oncology care delivery in community-based programs. Oncology nursing leaders led and participated in all levels of the program development. As a result, they have key roles in the implementation of these tools and in evaluating the degree of program success. Grounded in clinical practice expertise, the team has translated essential practice elements into resource tools needed for program development, growth, and excellence in oncology care.

### **P154**

#### **FORMAL TOBACCO ASSESSMENT AND SMOKING CESSATION COUNSELING EDUCATION FOR ONCOLOGY NURSES**

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##### **Oncology Nursing Practice**

Smoking is linked to 12 different types of cancer. Most patients attempt to quit smoking after diagnosis, but 50% of patients continue to smoke throughout treatment. This leads to increased oncologic complications, the development of secondary malignancies, and recurrence. The National Comprehensive Cancer Network recommends that all oncology patients be screened for tobacco use at regular intervals and receive treatment plans for all patients who use tobacco. However, oncology healthcare providers have reported they do not feel they receive adequate training to conduct tobacco use assessments and provide smoking cessation counseling. The primary objective of this quality improvement project is to increase the knowledge and confidence of radiation oncology nurses and nurse practitioners regarding tobacco assessment and cessation counseling strategies. A secondary objective is to increase the provision of smoking status assessment and cessation counseling among radiation oncology nurses and nurse practitioners through evidenced based education. Participants will complete pretest surveys assessing knowledge, confidence & how often they provide cessation counseling. Then they will attend a 30-minute tobacco assessment and cessation counseling

education session. Following the education session, participants will complete the same surveys and chart audits will be conducted to assess for documentation of cessation counseling. This research study will occur during October 2022- January 2023. Providing oncology nurses with formal tobacco assessment and cessation counseling education has the potential to increase their knowledge, confidence, and the frequency in which they provide cessation counseling. This education may aid oncology patients to quit smoking which can reduce oncologic treatment complications and recurrence rates as well as improve treatment outcomes.

### **P155 INCREASING NURSE PRECEPTOR CONFIDENCE BY IMPLEMENTING A NURSE PRECEPTOR TRAINING PROGRAM AT A PRIVATE AMBULATORY ONCOLOGY INFUSION PRACTICE**

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#### **Professional Development**

In the private practice oncology setting, nurse preceptors are often chosen based on the amount of experience they have in the specialty. The assumption that experience translates directly into the ability to teach leads to burnout, frustration, and increased stress levels for both the preceptor and preceptee. Properly executed, nurse preceptor training can lead to increased job satisfaction and nurse retention. A private ambulatory oncology infusion practice in Houston, TX sought to develop a standardized preceptor training program to ensure their preceptors are equipped with the tools and skills required to aid orientees through an effective transition to the practice. A nurse preceptor training course was developed to provide nurse preceptors with a framework to use while training newly hired nurses. The program includes background information on the orientee's time with the Nurse Educator, clear and consistent skill performance expectations, and a deep dive into interpersonal skills that allow preceptors to be confident in their role. The interpersonal skills portion was developed specifically to aid nurse preceptors with communication, conflict management, and connecting with the orientee. This was designed as a two-part interactive series with case studies and discussion sessions. Participants were actively engaged in this learning activity. Questions and ideas flowed freely; many that will lead to practice changes and improvements regarding the orientation process. Preceptors expressed a clear appreciation for the recognition of

the unique needs of that role. This program focused on recognizing the complexities of being a nurse preceptor and providing the tools to confidently navigate them. Current literature does not clearly describe preceptor training programs in the private practice setting. However, evidence is available to suggest the need for these types of curricula. Participant feedback supports this thought.

### **P156 THE LONG AND WINDING ROAD TO IMPLEMENTATION OF THE COMMISSION ON CANCER NEW STANDARD FOR NURSING EDUCATION 4.2**

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#### **Professional Development**

The Commission on Cancer (CoC) is a consortium of professional organizations dedicated to improving survival and quality of life for patients with cancer by setting and raising standards. In 2021, the CoC implemented a new standard for Nursing Education 4.2, which applies to registered nurses and advanced practice nurses who provide direct oncology care in the accredited facility for at least one calendar year. Each nurse must have a current cancer-specific certification in the nurse's specialty by an accredited certification program, or have proof of ongoing education by earning 36 cancer-related continuing education nursing contact hours each accreditation cycle. Despite this significant increase in requirements, the CoC does not give guidance on how to provide these hours to staff. Potential challenges to implementation include lack of budgeted funding for education, limited nursing time due to the current staffing crisis, and inadequate resources for creating high quality education programs. The purpose of this project was to propose and implement a feasible continuing education program to meet the new CoC Standard 4.2 at an NCI-designated Comprehensive Cancer Center. First, eight organizations that could provide and track the online education for our institution were identified and compared for cost, diverse selection and ease of use of programs, and the ability to obtain evaluation data. Advantages and disadvantages of each organization were outlined and a final recommendation and proposal was approved by the Chief Nursing Officer and Law Department. Five hundred license were purchased. Second, Nurse

Educators/CNSs at the Cancer Center engaged the Learning Management Teams to overcome many technical barriers of integrating the educational platform into the Cancer Center IT system. Third, nursing managers and staff were educated about the requirements and program and rollout began in April 2022. To date, 470 nurses across the organization are using the system. The education/CNS team evaluates new modules prior to enrolling staff. This program requires ongoing oversight with specifying nurses who need to be enrolled and individualizing their education based on their experience. Nurse evaluations at the end of each module show nurses are satisfied with the learning modules. Nurse participation has been extremely positive and contributed to the academic progress and the ability for the nurses to promote in their role, become certified, and success in completing the CoC requirements.

### **P157 SAFETY IS OUR PRIORITY! PERSONAL PROTECTIVE EQUIPMENT COMPLIANCE IMPROVEMENT PROJECT IN HAZARDOUS DRUG ADMINISTRATION**

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#### **Oncology Nursing Practice**

Despite known risks to health care providers, inconsistent use of Personal Protective Equipment (PPE) when nurses were handling hazardous drugs (HDs) has been observed at a large academic cancer center. This Evidence-Based Practice (EBP) project was implemented to increase and maintain PPE compliance and improve safety in our institution. A nursing team took the initiative to review EBP and regulatory bodies' recommendations on safe handling of HDs. The team revised the nursing policies to match the regulations and identified evidence and presented them to multidisciplinary committees for approval. Auditors were identified in both inpatient and outpatient infusion units. The expectation was to ensure the adherence to the new standard and conduct quarterly audits. The team developed audit tools that included observational tasks of handling, administering, and disconnecting/disposing of HDs. A feedback section was incorporated in the tools to help auditors facilitate conversations with the observed. Af-

ter completion of auditor training by a Clinical Nurse Specialist and providing resources related to PPE, pre-audits were conducted in August 2018. An online educational module on the new PPE standards was assigned to all nursing staff for the month of September. Following this, quarterly audits were initiated in Quarter 1, 2019. The Nursing Quality Department collected data from completed tools. Starting Quarter 1, 2021, an electronic version of PPE audit tools with the use of an application program developed in our institution was implemented. The PPE compliance rate of pre-administration, administration and disconnecting/disposing in the pre-audit was 58.3 %, 54.8% and 42.0 %, respectively. The compliance rate of pre-administration for Quarter 1, 2019 was 87.6 % and achieved 99.29 % in Quarter 2, 2022. The rate of administration for Quarter 1, 2019 was 85.1 % and increased to 97.26 % in Quarter 2, 2022. The rate of disconnecting/disposing for Quarter 1, 2019 was 81.9 %, whereas that for Quarter 2, 2022 was 97.75 %. The overall compliance rate of the three observational tasks has increased from the pre-audit. Additionally, a high compliance rate of over 90 % has been maintained for the last 10 quarters. This EBP project has helped increase awareness on the importance of safe handling of HDs. Our PPE audit application program has enabled data collection to be quick and accurate while reducing the burden of the auditors.

### **P158 BRIDGING THE GAP: COLLABORATION OF NURSING CONTINUING PROFESSIONAL DEVELOPMENT WITH NURSES, CLINICAL DEVELOPMENT SPECIALISTS, AND ADVANCED PRACTICE PROVIDERS IN THE AMBULATORY ONCOLOGY SETTING**

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**Patient Education and Safety**

Nursing continuing professional development (NCPD) and practice has shown a direct link to the improvement of patient care delivery. The collaboration of Clinical Development Specialists (CDSs), nursing staff, and advanced practice providers (APPs) is imperative

to provide information that is relevant to our practice. The objective of this quality improvement project was to identify areas of educational opportunities and topics by nurses in the ambulatory setting based on our yearly learning needs assessment and collaborate with APPs to create NCPD offerings for nursing staff. Our organization is an accredited provider under the Commission on Cancer (CoC) of which the standards bear strong preference for care delivered by certified oncology nurses. The project aims to maintain compliance with CoC through an established pathway towards certification such as NCPD activities to sustain current knowledge base, practice, and increase RN-APP collaboration. The yearly nursing learning needs assessment is evaluated by Nursing Education and shared with the ambulatory CDSs. The topics are shared with each Houston Area Location (HAL) nursing leadership team and APPs. The CDSs and APPs collaborate throughout the fiscal year to schedule virtual NCPD contact hour offerings based on the learning needs assessment and relevance to practice. From January 2021 through May 2022, a total of 12 NCPD offerings were held for staff throughout various dates and times. A post evaluation survey was administered to staff who attended at least one of the offerings. 45 staff members completed the survey and 100% of participants reported the NCPD offerings increased their knowledge, improved their clinical practice, and strengthened clinical practice between nursing and APPs. Staff reported the various offering dates, times, platform were conducive to their learning preference, increased personal and professional knowledge, and assisted with NCPD hours needed for certification and licensure requirements. In addition, the APP presenters were able to share pertinent evidence-based practice to elevate our nursing practice and ensure nurses are aware of the latest practice standards. The interprofessional collaboration with the CDSs, nursing staff, and APPs has allowed for professional development, increased knowledge, and NCPD credit towards licensure or certification.

### **P159** **HYPERSENSITIVITY CLASS 101: PREPARING NURSES FOR A REACTION**

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*Oncology Nursing Practice*

Hypersensitivity reactions (HSR) are high risk events and a common occurrence in ambulatory oncology in-

fusion centers. HSRs can be life threatening given rapid onset and severity of symptoms, including anaphylaxis. Occurrence of symptoms may lead to significant anxiety for nurses, potentially hindering critical thinking and clinical judgement. The nurses' acquisition of skills and knowledge of HSRs, including timely identification and vital nursing interventions, can prepare the nurse for an appropriate response ultimately ensuring safe patient outcomes. At an NCI designated ambulatory cancer center, an HSR course was developed to provide foundational knowledge and skills to prepare infusion RNs for HSR events. A team of Infusion unit nurse educators, a graduate nursing student, an advanced practice nurse and subject matter experts in oncologic emergencies and blood transfusion reactions collaborated to develop an HSR curriculum and simulation learning experience. Priority topics were identified and adapted into a didactic presentation inclusive of pathophysiology for types of reactions, signs and symptoms, key nursing interventions, and common high-risk infusions. Following the didactic presentation, high-fidelity simulations were utilized to practice critical thinking, delegation, and closed loop communication skills. Participants' understanding of priority topics was supported through instructor led time outs and post simulation debriefs. The course was trialed twice with presentation to experienced infusion nurses to solicit feedback prior to course implementation. Anonymous post-surveys occur with each class to validate the effectiveness of learning strategies. HSRs are a common and anticipated occurrence in the ambulatory oncology setting and nurses need to be equipped to competently respond. Comprehensive knowledge as well clinical skills are essential to cultivate critical thinking, model effective communication, and minimize anxiety for staff. Utilizing commonly administered, high risk infusions for the simulations provides the opportunity for nurses to experience relevant application in their everyday practice. Instructor led timeouts are effective tools to address and mitigate the anxiety associated with HSRs and provide the instructors with an assessment of participants' comprehension. The high-fidelity portion of the course was specifically identified as the leading factor for improved nursing confidence while responding to an HSR.

### **P160** **EVALUATING THE KNOWLEDGE CHANGE BEFORE AND AFTER CONTINUING CANCER EDUCATION IN MALAWIAN NURSES**

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#### Professional Development

Malawi has high incidences of cancer and cancer related mortality. Efforts to train and educate oncology nurses has been identified as an area of need. To our knowledge, this is the first study to study the use of virtual sessions to enhance nurses' understanding of adult cancers in Malawi. The purpose of this study is to evaluate the change in knowledge of cancer epidemiology, treatment, and nursing care of common cancers in Malawi among oncology nurses in Malawi following virtual education sessions. Four virtual education sessions were delivered via Zoom by oncology nursing faculty. The education programs consisted of four sessions covering the following topics: Cancer Screening, Survivorship, Radiation Therapy, and Complementary and Alternative Therapies. A pretest-posttest design was used. Frequency and percentage of pre-test and post-test knowledge and practice scores were calculated. A significant knowledge increase from pre to post test was found in all sessions (nurses reporting moderate to high level of knowledge): cancer screening (47% vs 95%), survivorship (22% vs 100%), radiation therapy (66% vs 100%), and complementary and alternative therapies (63% vs 88%). Virtual continuing education trainings are an effective tool that can be used to increase the knowledge of oncology nurses around the globe. This study demonstrates the effectiveness of this strategy in low-resource settings. The educational sessions described in this study provide a framework for other Schools of Nursing and cancer centers in high-resource settings to utilize to support the advancement of oncology nursing knowledge in low to middle resource settings. The use of virtual education sessions provides a unique opportunity for capacity building in low resource settings with limited budget and resources on the ground. This study demonstrates the effectiveness of virtual education, a form of education that allows experts throughout the world to share their knowledge and expertise remotely.

### P161 IMPLEMENTATION OF DAILY HUDDLE AND MANAGEMENT BOARD IN THE AMBULATORY INFUSION SETTING

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#### Coordination of Care

Communication is a key element for maintaining patient safety and facilitating teamwork in health care settings. The literature has demonstrated that Daily huddles are an important tool to enhance communication. When huddles are implemented consistently, healthcare teams are able to efficiently share information, review each other's performance, proactively flag safety concerns. Huddles also increase accountability, and ensure that safety interventions are hardwired into the system<sup>1</sup>. When frontline staff participate in huddles they feel more empowered and engaged to identifying problems. Huddles are an important part of building a culture of collaboration, enhancing the ability to deliver safer care. Team huddles have been linked to improved safety outcomes for patients and helps build relationships among team members. The Daily Huddle and management board were implemented Q1 2021 in alignment with the Mount Sinai Morningside goal of our "North Star" of Patient Safety. The Huddle and Daily Management Board is used to effectively communicate as a team and to mitigate any issues upstream before it may reach the patient. The Daily Huddle includes the total number of patients, the types of treatments, new patients/treatments scheduled throughout the Cancer Center, staffing, practice focus, safety and quality review with the entire team. Participation at the Daily Huddles is required for all team members including, Nurse Practitioners, Nurses, Medical Office Assistants, Social Worker, Clinical Nutrition Coordinator, Nurse Manager, Infusion Pharmacists, Administrative Manager and Patient Encounter Associates. A survey was conducted to receive feedback from the staff. 85 percent of the staff participated in the survey. The data demonstrated that the team finds the Daily Huddles as helpful, effective in providing situational awareness, and planning for their day. The team also finds the Management Board as a helpful tool for managing their day and receiving information. Since implementing the daily management huddle and using the management board, our employee engagement has increased to an engagement indicator of 4.15 from 3.80. The Daily Huddles and the visual management boards promotes information flow, provides visual cues, creates a standard way to communicate a shared understanding, and forms transparency for all staff and leadership within the Oncology Infusion Department. In managing daily work in a standardized efficient and effective manner,



we can better treat and care for our patients while providing a safe and compassionate patient experience for all.

## **P162**

### **EXECUTING A SYSTEM WIDE ONCOLOGY NURSING STRATEGIC PLAN**

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#### **Oncology Nursing Practice**

In 2020, Allina Health leadership and Board of Directors proudly endorsed the launch of the Allina Health Cancer Institute (AHCI). Predicated on a vision for seamless, whole person cancer care, and striving for regional differentiation in a highly competitive market, a whole new nursing culture and elevation of the voice of nursing was critical to its success. One of the key members of the AHCI team was a Clinical Nurse Specialist (CNS). The CNS recognized foundational gaps regarding nursing structure and governance that hindered advancement of nursing practice. With strong executive support for nursing within the Institute, the CNS formed a proposal for a system-wide oncology nursing council, with all nursing disciplines represented which, would be led by the future Director of Nursing (DON) for AHCI. Under the direction of AHCI's DON and CNS, the Oncology Nurse Leader Council (ONLC) launched with a clear vision to expeditiously develop and execute a nursing strategic plan. The newly formed council engaged in two full-day sessions to develop a nursing strategic plan. Between the two sessions members led a critical 'catch-ball' process with frontline nurses at every site and oncology sub-specialty to ensure voices of oncology nursing at all levels of the organization were represented. After completion of the sessions, overall goals were identified, and tactics developed to execute. The voice of oncology nursing was advanced and elevated through the development and execution of the nursing strategic plan. To track progress on deliverables, visual tools such as a nursing specific scorecard was transparently shared across operational and clinical leaders within the Institute and the broader Allina Health organization. Prior to launch of the council, a charter was developed. The charter iterated several times from the CNS' initial concept of the council to the actual commencement. The document clearly describes the council's purpose, func-

tions, accountability, and deliverables and is reviewed and approved by members. After the strategic plan was approved, tactics were developed and incorporated into the charter. A key tactic to accomplish the strategic plan was creation of three task forces: Care, People, and Patient Experience aligned with the organization's pillars. Each Task Force focused on one or two initiatives that supported the overarching nursing strategic plan.

## **P163**

### **HIGH-DOSE-RATE BRACHYTHERAPY PROGRAM: NURSING CARE OF THE PROSTATE AND GYNECOLOGIC CANCER PATIENTS' PRE, INTRA AND POST TREATMENT**

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#### **Patient Education and Safety**

Due to technological advancements, the landscape of Radiation Oncology is quickly changing. The traditional role of the Radiation Oncology clinic nurse now encompasses procedural training and patient care. The clinic nurse is well positioned to help educate patients who require Brachytherapy alone or patients who will transition from external beam to Brachytherapy treatment. Patient education is accomplished through demonstration, visual aids and reading material. The purpose of this lecture is to outline the steps of patient care and education needed to implement a successful Gynecologic and Prostate Brachytherapy Program within the Department of Radiation Oncology. Despite the changing technology in Radiation oncology, patient education remains essential to promote patient compliance, decrease anxiety and the assurance of best patient outcomes.

## **P164**

### **INTEGRATION OF TEAM NURSING AND LIVE CALLS RATES**

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#### **Coordination of Care**

Oncology Patients receiving care at a NCCN designated Comprehensive Cancer require frequent access to their care team. Traditionally this access transpired

via phone contact. Analysis of Press Ganey scores, demonstrated a ranking in the 28th percentile for ease of contacting clinical staff. A review was conducted of relevant operational data and identified a focus of answering live calls as major a contributing factor of the 28-percentile ranking. Baseline data showed calls were being answered 27% to 51% live, with variation team dependent. The purpose was to develop clinical procedures and establish phone tree capabilities to facilitate attaining an institutional goal of improving rates for live answering of patient calls. Nurse leadership, administrative staff, and analytical teams collaborated on collected data for patient calls, current volumes and evaluation of different systems' feasibility and efficiency to facilitate live answering of patient calls. Telecom and IT teams contributed expertise on selection of platforms while nursing leadership and clinical teams established new team coverage models assuring highest possible live answering for telephone. Across clinical services significant increases were attained for rates of live answering of patient calls and several teams' rates increased by 30% - 45% to 72% - 86% live answer rates. Long term the institutional Press Ganey scores will continue to be monitored for evaluation of percentile rankings in relation to other NCCN cancer centers. Continued analysis between IT, telecom, nursing, and patient experience department are essential to sustaining these efforts to improve patient satisfaction and expedient access to their care team. Within our high volume, high acuity NCCN cancer center we are endeavoring to create systems of care that support achieving the best outcomes for oncology patients.

## P165

### ANALYSIS AND IMPLEMENTATION OF APP TRIAGE PILOT

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#### Coordination of Care

In a large NCCN designated cancer center the Renal Melanoma Clinic staffed by 6 Attending Physicians, 3 Advanced Practice Providers (APP) and 5 Clinical Nurse Coordinators (CNC) engaged in complex oncology care delivery. Triage is primarily coordinated with APPs overseeing clinical response for urgent patients' needs. With increasing patient panels, new EPIC workflow, and complex clinical cases the clinic was facing challenges related to efficiency and standardization in communication.

Patient safety and satisfaction are tied to timely responsiveness to patient issues which requires prompt and effective communication between the members of the healthcare team. APP's were getting 20 triage in-basket messages per half-day clinic. Each triage takes approximately 15 mins to respond, representing approximately 5 productive hours in addition to care delivery and documentation hours. The purpose was to design a feasible and sustainable triage model to improve communication to address increased capacity for urgent add-ons while providing best ongoing patient clinical care improving provider, team, nurse, and patient satisfaction. An interdisciplinary team was convened to assess scope, the care delivery and competing issues posed by triage. A pilot system was designed to reduce overlap of triage/clinic responsibilities, adjust APP clinics by elimination 1 full clinic per APP and institute standard triage template for CNC use in the EMR. Pilot evaluation demonstrated improved ability to respond to patient triage and questions, eliminated required MD direct triage, and saw APP productivity increased from 116 RVUs to 122 RVUs a month. Patient satisfaction scores increased as did the attending, APP and CNC job satisfaction which increased from 59% to 89%. Favorable responses were noted also in communication pain scores which at baseline were 4 out of 10 and decreased to 2 out of 10. Changing practice and care models in a comprehensive and complex care systems requires innovative thinking, multifaceted analysis and inclusive collaboration from across an interdisciplinary team and necessarily mandates institutional leadership support for implementation. Our executive leadership reviewed data from this feasibility analysis and plans are underway to implement in other clinics within the organization. Addressing the demands of urgent triage and ongoing best care delivery calls for creative assessment and changes in how teams are structured and balancing of workloads to promote staff satisfaction and assure best oncology care outcomes.

## P166

### GROWTH AND DEVELOPMENT OF AN INFUSION NURSE FLOAT POOL IN AN AMBULATORY COMPREHENSIVE CANCER CENTER

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#### Professional Development

The COVID-19 pandemic significantly impacted nurse staffing worldwide, forcing many hospitals to fulfill gaps in staffing by using per diem nurses and those from outside agencies. Historically, our NCI-designated ambulatory cancer care center has utilized float pool nurses who specialize in the care of patients with solid tumors or hematological cancers to fulfill these nurse staff shortages. However, in order to meet the pandemic staffing demands, nurse leadership recognized the need for greater clinical versatility from the float pool nurses and aimed to develop a float team equipped to provide care for populations across the institute's 13 disease-specific centers. With a focus on empowering float pool nurses to directly influence this work from its inception, foster proficiency, professional growth and development, and camaraderie among members, nurse leaders set out to develop an innovative approach to address staffing needs. The purpose was to create an innovative float pool infrastructure and processes to address pandemic staffing consequences while limiting utilization of per diem nurses and those from outside agencies. First, disease-centric education was created utilizing a multimodal approach. Didactic education was widely accessible to all staff via online modules and case studies. Experiential learning was enabled through a strategic placement program where float pool nurses were assigned to a disease center to gain exposure alongside chosen expert nurse mentors for 4 months. Secondly, an intentional check-in process was created consisting of meetings between the float pool nurse, clinical specialist, and nurse director every two weeks during the nurse's first four months on the team, and then every two months thereafter. Within 6 months, 100% of float pool nurses completed both their assigned didactic and strategic placement requirements. Within 10 months, they began caring for patients across multiple disease centers. As an outcome of the connections created throughout the check-in process, float pool nurses contributed valuable insight which shaped the content, timing, and delivery of each educational opportunity. Enhancing the clinical diversity of the float pool nurses provides a global support to all units requiring staffing support within the institute. It has the potential to provide improved patient outcomes by mitigating the safety risks of overusing per diem nurses and those from outside agencies who are not familiar with the environments, workflows, and safety checks for specialized care.

## **P167**

### **NEWLY LICENSED ONCOLOGY NURSE ORIENTATION**

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#### **Oncology Nursing Practice**

At Brigham and Women's Hospital the newly licensed nurse (NLN) receives a 12-week orientation in the oncology service. To prepare for independent practice, orientees are matched with a preceptor for 10 weeks of dayshift and 2 weeks of night shift. Over the past few years, there has been an increased turnover of bedside nurses. The 2020 turnover rate for RNs increased by 2.8%. When filtered to NLNs within their first year of practice the 2020 turnover rate was 23.9% (Aull & Nobles, 2022). Units continue to regularly orient multiple NLNs, with the majority assigned to night shifts. The night shift workflow promotes development of crucial skills like time management and organization. The ability to orient with less interruptions can help NLNs build confidence in their nursing abilities. However, they must also navigate challenges, including disrupted sleep patterns, limited access to resources, and less experienced staff. Night shift NLNs need to adjust to a different routine and cluster care. Ongoing dialogue between preceptor and orientee is important to ensure a robust orientation. The preceptor will continue to evaluate the NLN's skill set and the bidirectional discussion can help build confidence and independence, as the NLN progresses towards independent practice. It is beneficial to personalize each orientation experience while still ensuring consistency in education. Everyone has a different learning style and receives information differently; this is something a preceptor can observe and discuss with the orientee. A concept to always reinforce is the ability to obtain information, assistance, and support from your institution and coworkers. There is often limited experience available on night shift, so it is not enough to rely on the charge nurse or coworkers to know the answer to everything. After completing the didactic education component, it is essential to have nurses practice their skills hands on. The concept of experiential learning engages nurses in experiences that allow them to practice and apply new knowledge while also receiving feedback in a controlled supportive environment (Ward, 2022). Sometimes there is fear of asking too many questions and feeling like a burden to other nurses, doctors, as well as support staff. Throughout orientation these nurses should feel supported and encouraged to feel confident in their assessments, successfully obtain information and ask questions as needed to not only help themselves but to better serve their patients.

## **P168** **BUILDING A CHEMOTHERAPY TRAINING** **COURSE FOR POST-CERTIFICATION**

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[Treatment Modalities](#)

Chemotherapy errors occur at a rate of about one to four per 1000 orders and affect at least 1-3% of adult and pediatric oncology patients (Weingart et al., 2018). These errors can occur across all stages of the medication process; however, nursing remains an integral part of identifying and preventing these errors. In 2016, American Society of Clinical Oncology (ASCO) and the Oncology Nursing Society (ONS) updated their chemotherapy administration safety standards requiring higher safety measures within the nursing profession. These updated standards created a need for change within the oncology nursing practice on a national scale. At our organization, increased staffing constraints and reduced number of chemotherapy admissions resulted in barriers that inhibited the training experience for newly chemotherapy certified registered nurses. Many nurses felt underprepared for chemotherapy administration and recommended that a new form of training be initiated. As a result, an interactive in-person course was created to aid newly certified RNs and provide educational support that was specialized to their needs. Nurses are provided with an overview of the key principles of systemic chemotherapy administration with a strong emphasis on the 2016 ASCO/ONS chemotherapy administration safety standards. Nurses will learn how to manage chemotherapy related toxicities and reactions within a safe learning environment. After the completion of the course all nurses are deemed competent to safely administer chemotherapy treatment to the oncology population. The four-hour in person chemotherapy review course addresses a wide variety of subjects that pertain directly towards chemotherapy administration within the inpatient setting. The course addresses the chemotherapy verification process, required documentation, and the nursing considerations required for safe chemotherapy administration. In addition, the course reviews chemotherapy related symptoms, oncologic emergencies, and the nurse's role in chemotherapy management. An anonymous, electronic survey is conducted to collect baseline data on RN's knowledge and comfortability with chemotherapy administration. After the completion of the course the same survey is distributed. This pre and post survey data will allow us to measure the knowledge gained from the course and to analyze if

there was a positive impact on the comfortability. Data for this project is currently still being collected as classes are still being held.

## **P169** **HOW COMBINING CHARGE AND TRIAGE** **NURSING IN A SMALL SUBURBAN CLINIC** **CAN IMPROVE A PRACTICE**

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[Oncology Nursing Practice](#)

A small suburban clinic allows for nursing to acquire the combined role of charge nurse and triage nurse. In this role, the nurse has oversight of daily operations with a focus on patient safety and quality improvement. One of the first opportunities recognized was the need to improve infusion workflow. The three main goals were to implement pre-assigning with the utilization of an acuity tool; becoming the collaborative partner between clinic, pharmacy, infusion and providers; and co-leading scheduling template development with ongoing revisions to improve patient access to care. Prior to implementing pre-assigning, the nurse to patient ratio could be as high as a 10:1 nurse to patient ratio. This resulted in an unsafe work environment as well as nursing burnout. The process of pre-assigning consists of preparing the infusion schedule two days prior to resolve any conflicts such as unsigned orders or unresolved lab results. One-day prior, is to identify any scheduling changes and utilize an acuity tool to assess patient's treatments, mobility status, social needs and assign to nursing accordingly. This allowed for equal distribution of patients among nursing staff and facilitated a smoother workflow. Development of an infusion scheduling template has allowed to maximize patient access to care. Prior to a template, there was limited guidance for the schedulers to appropriately schedule patients and cluster scheduling occurred resulting in increased wait times and patient dissatisfaction. Key steps were developed to improve scheduling were: implementation of a treatment list with scheduling times, in-services to provide the schedulers guidance on proper chair times for infusion treatments, weekly meetings with scheduling staff, use of EMR tools to enhance scheduling communication and the development of a customized template to maximize appointments and patient flow. The charge/triage RN collaborated over time leadership to review operations and make revisions based on volume, provider and staffing changes. Serving as an operational and clinical lead between departments has allowed for the dissemination of information as well as ensuring proper procedures are

followed to improve patient care and safety. As the role of liaison, it has also improved the nurse and provider relationship. With the support leadership, this role has been successfully implemented at a nearby small suburban clinic and has mirrored similar initiatives in effort to improve efficiency, collaborative relationships and standardization across similar clinic sites.

## **P170 DEVELOPMENT OF AN AMBULATORY NURSE RESIDENCY PROGRAM**

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### **Professional Development**

Nurse Residency programs offer newly graduated nurses an opportunity to become more familiar with the institution and what resources are available. Being able to share experiences and/or questions is vital to this nursing population. Aside, from having colleagues from all parts of the institution to exchange ideas/thoughts with, there are monthly experiences/programs to further assist in the development of the new nurse. Our institution started with a pilot nurse resident program (1997-2001) with good success based upon feedback. As of 2002 our institution officially began the Vizient/AACN Nurse Residency Program™ for inpatient nurses. However, with care migrating from inpatient to outpatient it was determined that a nurse residency program should be available to anyone who starts their nursing career at an ambulatory site. While discussing and researching the possibility of implementing an ambulatory nurse resident program, it became evident that very few institutions have an ambulatory nurse resident program. The purpose was to develop an ambulatory nurse resident program in the oncology setting. Caring for an oncology patient can be very demanding, and a new graduate nurses' knowledge in relation to the patient population is minimal. In preparation of hiring our first new graduate nurse multiple discussions occurred with various stakeholders to determine what an adequate orientation would be. As oncology is specialized we determined orientation would be a combination of inpatient and outpatient. There was a strong consensus that having the nurse spend a month inpatient on our hematology/BMT unit would be of great benefit, especially in increasing comfort

levels through patient interactions. Disease-specific didactic classes were developed, recorded, and uploaded to our virtual learning platform for ease of access 24/7. Each week of orientation, not including inpatient time, the nurse resident completes disease-specific classes. The following week the focus of patient care is on those with the disease just learnt. A specific preceptor was determined to ensure continuity of teaching style and learning. Weekly check-ins were arranged to discuss any challenges faced, and to answer any questions. Weekly check-ins proved beneficial to the nurse and to leadership. During one check-in it was determined that a pause in new education needs to occur for increased synthesis between content and care. Constructive feedback from our nurse resident, preceptor, and the inpatient preceptor will assist in determining how our next nurse resident receives orientation.

## **P171 IMPLEMENTATION OF AN AMBULATORY NURSE RESIDENCY PROGRAM**

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### **Professional Development**

Healthcare has been steadily migrating from the inpatient to outpatient setting. To accommodate this change, new graduate nurses need to be prepared adequately. Nurse residency programs are an excellent addition to standard orientation for the new graduate nurse, though these programs are primarily limited to inpatient nurses. Since 2002 our official nurse resident program for inpatient nurses began with the Vizient/AACN Nurse Residency Program™. Vizient is a health care services company providing innovative data-driven solutions, expertise, and collaborative opportunities leading to improved patient outcomes. The purpose was to implement an ambulatory nurse residency program (ANRP) in the oncology setting. In preparation for our nurse resident, during a Unit Practice Council meeting, the primary preceptor introduced the ANRP, recruited volunteers for their expertise to supplement didactic learning with recommended readings,



and created disease-specific discussion topics. The existing orientation tool kit was adapted to become a more specific unit resource, including newly developed tip sheets on symptom assessment and management. Weekly goals and expectations were outlined and discussed during weekly check-ins. A self-assessment questionnaire was developed and completed at the beginning of each week to monitor progress, and raise awareness where support may be needed. The nurse resident will spend four weeks on the inpatient hematology/BMT unit to become more familiar with managing the care of these patients. Education specific to oncology, including ambulatory components and simulation, was developed and added to our existing orientation. The Illness severity, Patient summary, Action list, Situation awareness, and Synthesis (IPASS) handoff instrument was adapted to provide guidance to the nurse resident when gathering pertinent information for assigned patients and is discussed pre and post patient care with preceptor. The self-assessment questionnaire, completed weekly, showed improvement of nurse resident's comfort level with tasks, interactions, knowledge, and overall care of the oncology patient. The infusion nurses have been extremely receptive and excited to have a new graduate nurse join their team.

## P172

### STANDARDIZING CARE FOR PATIENTS WITH HEPATIC ARTERIAL INFUSION PUMPS (HAIP)

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#### Oncology Nursing Practice

The hepatic arterial infusion pump (HAIP) is a treatment device utilized to deliver chemotherapy directly to the liver. Educators recognized the complexity of care associated with the HAIPs and identified a need for specialized oncology nursing education, standardized coordination of care and implementation of a new nursing process. The utilization of two HAIP devices Medtronic and Intera 3000 for a small patient population within a large outpatient cancer center required robust education and policy development to prevent patient safety errors and maintain quality cancer care. The purpose was to standardize the nursing process for care of HAIP patients nurse educators collaborated with multiple disciplines in the development of a standard operating procedure and nursing education to prevent risk for infection, occlusion and chemotherapy administration errors associated with HAIPs. Nursing

education developed and implemented hands on skills teaching, didactic lecture sessions, and competency assessment for management of patients with HAIPs. To improve the new nurse's knowledge on HAIPs education was also performed during unit orientation. Collaboration with nursing informatics and pharmacy occurred to develop standardized documentation pathways in the electronic medical record (EMR) to improve interdisciplinary communication and safety. A policy was developed to ensure effective coordination and care for patients with HAIPs within inpatient, outpatient and interventional radiology clinical settings. Yearly competency was implemented to assess nurse knowledge and skill in the assessment, and care of HAIPs. Nurse feedback on the nursing process and documentation of care in the EMR was obtained. Educators reviewed feedback from staff and collaborated with informatics to improve the documentation process of HAIPs demonstrating the transformational leadership structure between leadership, education and clinical staff to improve patient care and the patient experience. The utilization of two HAIPs in a small patient population highlighted the critical need for development and implementation of a standardized policy, EMR documentation, and skills education on nursing care and management of HAIPs. This initiative improved communication within the interdisciplinary care teams involved in HAIP care. Staff nurse involvement in standardizing the nursing process and EMR documentation of HAIPs was essential for engagement in the implementation process of new nursing skills. Nurse educators developed competency assessments for both HAIP devices in order to standardize care and address potential complications requiring emergent nursing interventions.

## P173

### UTILIZATION OF THE 2022 ONS ONCOLOGY NAVIGATION STANDARDS OF PROFESSIONAL PRACTICE AS A FOUNDATIONAL PRECEPT TO EXPLORE A REVISED NAVIGATION MODEL ACROSS A LARGE ACADEMIC HEALTH SYSTEM

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Coordination of Care

Role delineation provides a critical framework for team-based oncology support services. The Sidney Kimmel Cancer Center (SKCC)-Jefferson Health is part of an 18-hospital academic health system spanning two states; the largest in the Philadelphia region. It is comprised of four "Advanced Cancer Care Hubs" (ACH)

with a main NCI-designated Center in Philadelphia, Pennsylvania. Within this expansive enterprise, four oncology navigation teams functioned independently. To streamline workflows and maximize efficiencies, we adopted the 2022 ONS Oncology Navigation Standards of Professional Practice (ONSPP). The purpose of this project was to conduct a process evaluation of our mixed navigation model using the ONSPP as a framework. Our objective was to identify four enterprise wide focus areas for realignment of services. Oncology patient navigators provide optimal support for non-clinical services. Nurse navigators performing non-clinical tasks may have limited opportunities to provide direct care coordination & patient education. Misalignment of roles may lead to sub-optimal use of resources, staff turnover and inconsistent navigation services. The Enterprise Director of Navigation (EDN) presented the ONSPP to the enterprise team. In-person, 3 hour “Deep Dive” sessions were held at each ACH to explore application of standards, based on direct feedback from navigation teams, to elevate our current navigation model. All navigation teams participated in these sessions. Posters were created, printed and distributed to each site. Categories included clinical and non-clinical tasks. Each team brainstormed daily tasks and categorized them during the session. A summary was provided by the EDN and PDSAs were created for each hub to track changes. Next steps include meeting with stakeholders, reviewing current process, and determining changes needed. Tasks were transcribed and coded as clinical, non-clinical, and non-navigation by EDN. Spreadsheets were shared with ACH leadership. Four enterprise wide areas of priority were identified:

- Establish standardized process for medical record retrieval
- Formalize standards for Tumor Board management
- Create aligned metrics
- Explore alternative staffing models

Role delineation is a crucial component to understanding and implementing consistent navigation services. This structured approach provided time and a safe space for navigators to “think critically” about their daily work and identify opportunities for change using the ONSPP as a framework. These “deep dive” exercises resulted in a constructive mapping of core actions to fully develop a navigation model across a large health system.

## P174

### **BUILDING BLOCKS OF A SUCCESSFUL ONCOLOGY NURSE ORIENTATION PROGRAM**

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#### **Professional Development**

The purpose was to optimize oncology patient outcomes, an orientation program was developed providing the building blocks of success for new graduate nurses in an inpatient acute oncology unit. Providing a solid orientation experience for novice oncology nurses has become challenging since the onset of the COVID pandemic. Nurses currently entering the workforce come from schools that held classes and clinicals primarily online, leaving novice nurses to start their profession with minimal live clinical experience limiting the opportunity to learn and cultivate nursing and communication skills. Compounding this problem was the exodus of experienced oncology nursing staff that left to take on travel assignments, leaving novice nurses to be precepted by those with less experience making it harder for these novice nurses to make the transition from school to professional practice. To ensure novice oncology nurses build a solid foundation of knowledge and skills to provide safe, quality care and for unit retention, an orientation program was developed incorporating nursing competencies, communication skills, critical thinking, and oncology nursing knowledge. The orientation program is aligned with the hospital system’s new graduate RN residency program and the additional classes were held on the unit level to supplement and augment the novice nurses’ training. These classes included development of basic nursing skills, hospital specific procedures and protocols, foundational oncology knowledge, chemotherapy and immunotherapy. Various learning styles were implemented including hands-on practice skills labs, didactic presentations, flipped classroom learning, case studies, interactive games, and presentations by the novice nurses themselves. Upon completion of the orientation program, the unit supervisors then take over as coaches and mentors to ensure the novice nurses continue to be guided and supported as they start independent practice. Pre- and post- learning needs/skills/knowledge assessments are analyzed to determine the effectiveness of interventions provided. Nurse retention rates and patient outcomes are monitored to evaluate the program’s success. Recent challenges in the provision of education in nursing school and the high turnover rate of experienced nursing staff has hindered the transition from an educational to a professional setting for novice oncology nurses. A multi-faceted

orientation program with plans for continued support is needed to ensure novice oncology nurses are prepared and skilled to provide safe, quality patient care and stay in their chosen professional field.

## **P175** **USE OF ELECTRONIC PLATFORM TO** **ENHANCE ONBOARDING AND ONCOLOGY** **EDUCATION**

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### **Professional Development**

In the ever-advancing oncology world, keeping novice oncology nurses up to date on the current evidence-based practice is often a challenge. The pandemic generated limitations on in person training and with additional staffing constraints, it became necessary to creatively find a way to train nurses without removing them from direct patient care responsibilities. We implemented an online education platform to enhance our education process. This form of education offered a self-paced, interactive, inclusive learning experience. The desired learning outcome of the online platform is to both increase currently employed nurses' knowledge to care for patients with cancer and enhance onboarding of experienced nurses new to the oncology specialty. The platform is useful in multiple ways such as: onboarding new nurses, just in time instruction, and annual education. Importing existing lectures to the platform, along with integrating quizzes and videos created an engaging electronic environment. Interactive discussions were encouraged by linking to an article to read and then learners commented how they planned to apply new knowledge to their practice (with discussion points, emojis, gifs, or images). During the orientation process of a new to oncology nurse, the information was tailored to the onboarding education of specific disease group assignment and physician workflow. This allowed the nurse to participate in self-paced learning while also completing on the job shadowing of other nurses in that role. The online resource also serves as a collaborative discussion board. The newly hired nurse can pose questions about the content directly on the board and the nurse educator can respond with an answer. This feature is favorable as it lends to timely responses to questions and comments. An electronic evaluation form was utilized to obtain feedback on both the content and user experience with this new method of learning. The results of the evaluation will guide decision making and development of future educational material and experiences. One lesson learned

– some associates who were not highly confident of their computer skill, rated the online platform poorly. This feedback corroborates the principle that individuals learn differently; all future discussions boards and learning experiences will be designed taking into consideration the various levels of computer experience of the end user.

## **P176** **A MULTIPRONG APPROACH TO IMPROVE** **NURSE RETENTION: A CASE STUDY FROM A** **LARGE ONCOLOGY INFUSION CLINIC**

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### **Professional Development**

RN turnover rose to an all-time high of 18.6%, nationally in 2020. An oncology infusion services associated with a large academic medical center faced staffing crisis with a turnover rate of 31% in July 2021. Average turnover for this department pre-covid remained 18-20% in FY 2019. The purpose was to improve attrition of oncology nurses in the infusion clinic, evidenced by nurse turnover rate below 18% by September 2022. A multiprong approach was adopted by the infusion clinic leaders to stabilize the specialized nursing workforce required to provide quality oncology care. Interventions included strategically aligning retention as departmental goal for leaders and employees. A survey conducted in June 2021 revealed gaps in onboarding, psychological safety, and the need of work life balance. Focused interventions were implemented to improve workload, wellbeing, adequacy of resources, and career growth. Tailored onboarding of new RNs, creation of incentive pay for additional shifts, staff interview panels, stay interviews, and flexible scheduling was introduced. A psychologically safe culture was intentionally set where staff openly discussed gaps, errors, concerns and near misses. Promoted per diem staff and implemented staggered shifts. Leaders actively supported and promoted clinical ladder submissions. Gradual improvement of retention rate was noted in the initial 6 months and the trend continued to improve. Staff engagement survey in November 2021 reported engagement score at 79th percentile, higher than institutional benchmark. Scores for team and psychologically safe culture improved by 24% from previous survey results. Turnover rate for RNs in this department decreased from 31% in July 2021 to 15% by August 2022. The

results affirm the evidence that no single intervention can sustain a lower retention rate. The chronic shortage of nurses has been exacerbated by the impact of the pandemic. Nurses sight burn out as their reason for taking a leave of absence or for leaving employment completely. Changing landscape of health care delivery, priorities of workforce and innovative work options places turnover as a moving target. Shared governance, safe work culture, structured training programs, flexible self-scheduling, and staff wellbeing continues to top the strategy list that positively impact retention of workforce. Leaders at all levels must be intentional in placing nurse retention as a visible priority to ensure cost effective and safe care delivery.

### **P177 UTILIZING TECHNOLOGY AND LEADING FROM WITHIN: A NURSE ENCOURAGES COLLEAGUES' PARTICIPATION IN SHARED GOVERNANCE**

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#### **Oncology Nursing Practice**

When Shared Governance (SG) is effective, nurses have the opportunity to participate in decisions impacting their practice. SG has the potential to positively affect oncology nursing engagement and retention, patient outcomes, and evidence-based care. One of the most common, and biggest, barriers to building a strong SG structure is gaining staff buy-in. With hectic schedules, and increasing workloads participation is often perceived as an increase in work and time commitments. The purpose of this project was to implement leadership strategies with the goal of increasing staff participation in the Unit Practice Council (UPC), the SG committee, on a busy oncology-medicine unit. The unit consists of 36 beds, 25-45 RNs, and 20 ancillary staff. An RN on the unit was elected chair of the UPC. Drawing on relationships built as a co-worker, the chair employed active listening and challenged her colleagues to participate in creating change. By encouraging discussion, a small measurable collective problem was identified: the amount of time spent searching for essential equipment. To generate involvement from the greatest number of staff, the chair created a short, one question survey easily accessible via a QR code. The code was displayed in a prominent location and mentioned in daily huddles. Scanning the QR code and answering a single question was the only step required for participation. The survey question: "I spend a great part of my work day trying to find the equipment necessary to

complete my job." 60 percent of staff completed the survey. The unanimous results proved the universality of the problem and staff agreed a workable solution could be found to benefit all staff. Implementing a creative and easily accessible avenue to participate, raised interest and improved staff engagement in the UPC. These strategies achieved two things. First, once staff realized they had the potential to improve their own workday experience, it was easier to gain their participation. Second, it brought the group to focus on a collectively beneficial, productive, and measurable goal. Utilizing the science of influence, clear communication, and a little creativity the chair addressed the barriers and participation in the UPC went from a small minority of staff to a large majority. Encouraging staff participation in SG can be difficult, but every nurse is a leader. Creativity and leadership strategies are effective at every level.

### **P178 PEER-LED NURSING SUPPORT GROUP**

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#### **Professional Development**

We have created a monthly support group for our oncology nurses. Oncology nursing can be very challenging mentally, physically, and emotionally. It is especially true when we bear witness to the suffering and pain that an oncology patient may endure. Our nursing leadership recognized the need for additional support. We have created a monthly support group that is modeled after a research study article. The objective of this meeting is to provide safe space where our nursing staff can discuss difficult topics like how to handle grief and loss of our well-known oncology patients. Other topics discussed are how to approach the patient/families after the provider has just given bad news and ways to practice self-care. This meeting is peer led by 2 of our department's nurses and is offered virtually after clinic hours. Our goal for this meeting is to improve self-care, strengthen connections with team/colleagues, learn efficient coping practices, empower staff, and emotionally recharge. The meetings are on a volunteer basis, but we do offer compensation for those who attend. We have invited our inpatient oncology department to attend as well. We have received positive feedback from those who have attended. It is a time to reflect with colleagues and come up with strategies to stay healthy and positive.

## P179

### STOP THE MADNESS: DECREASING THE NUMBER OF NEW PRODUCT TRIALS BASED ON EVIDENCE

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#### Oncology Nursing Practice

New products are introduced to healthcare on a daily basis. Clinicians are inundated with what they are told are the best products from vendors and manufacturers. With the ever-changing healthcare climate and the amount of change that clinicians are faced with, it is imperative to ensure that changes they are given are based on evidence and not the “latest and greatest.” The purpose of this project was to decrease the number of new products rolled out to clinicians. A secondary purpose was for staff to understand that when a product is introduced it is because it is best practice as supported by evidence. The nursing value analysis team (VAT) reviews all requests for new products. This team is made up of staff from supply chain and distribution as well as clinicians from key areas of the hospital. As Associate Director of Evidence-Based Practice, I was given a seat on the VAT. Recognizing that the number of requests being brought to the VAT to trial a new product was becoming overwhelming to the staff, changes were suggested. The supply chain group stopped allowing vendors to request product trials with all requests coming from the nursing staff. Second, we changed the request form to include synthesis of evidence tables that showed the change was based on evidence that the new product was better than what we already had in place. Only those with sufficient evidence were implemented. Since 2021, the VAT has been using the EBP process for new products. Prior to this, there was an average of 15 new product trials per month with an average of 15 a year actually being implemented. Since requiring evidence, the number of new products implemented has dropped to an average of 12 per year with no trials prior to implementation. With all of the unexpected changes occurring through and after the pandemic, nurses need to know that when they are being asked to change products or procedures it is based on evidence of best practice. Requiring evidence has successfully decreased the number of new products and makes the change more easily accepted by clinicians. Requiring evidence for any new product request is a new and innovative way to streamline the number of products being introduced and is one more way to ensure that the organization is evidence-based throughout.

## P180

### INFUSION NURSE STAFFING CRISIS: RECRUITMENT AND RETENTION STRATEGIES FROM AN AMBULATORY INFUSION SUITE

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#### Oncology Nursing Practice

Over the last two years, the main ambulatory infusion suite at the Hospital of the University of Pennsylvania struggled with critical staffing issues. While some issues started pre-pandemic, these issues quickly escalated during the pandemic and negatively impacted clinical care delivery. From November 2020 to November 2021, the infusion suite experienced 44% turnover in nursing positions. Resignations accelerated with time, as staff became increasingly strained by short staffing, burnout, scheduling changes, rebounding infusion visit volumes, and complex patient care needs. In order to address critical challenges with nursing turnover, retention, and recruitment, the infusion nursing leadership team employed a number of strategies, including staff interviews, temporarily reducing infusion capacity, engagement with the senior nurses, a proposal for additional staff for a 12-hour nursing model, and creative recruitment strategies. Exit interviews and stay interviews were conducted with all employees. Significant safety concerns due to inadequate staffing, the need for scheduling flexibility, and the lack of time to interact meaningfully with patients were consistent themes. In partnership with the scheduling optimization team, capacity was temporarily reduced to align with the current level of resources to ensure safe nurse to patient ratios. The leadership team engaged the senior nurses to advise on scheduling guidelines, incentives for senior staff, and nursing workflows. In collaboration with infusion leadership, the Cancer Service Line, and the Hospital Executive Team, additional nursing resources were approved to implement a full 12-hour model, which would allow for nursing coverage throughout the day, as well as more scheduling flexibility for the nurses. For recruitment, the new 12-hour positions were advertised, openings were posted to internal and external sources, and the “Gateway to Infusion” transition to practice program continued, developing a pipeline of skilled infusion nurses. Through various efforts, all vacant and newly approved positions were filled by April 2022, with turnover rates slowing dramatically to 12.6% from January 2022 to June 2022. A



12-hour nursing model was implemented, allowing for the reopening of previously closed appointment slots. NDNQI scores for “adequate staffing” also improved during this time, from the 10th percentile in 2018 to the 51st-75th percentile in April 2022. With recruitment and vacancy challenges resolved for the moment, the infusion leadership team’s priority now is to focus on ongoing retention efforts to ensure the infusion nurse role is fulfilling for oncology nurses long term.

## P181

### COMBAT AGEISM IN AN ONCOLOGY CLINIC

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#### Professional Development

I am one of the oldest nurses in the clinic. It made me self-conscious, feel inferior to younger staff, doubt my nursing abilities and subsequently led me to believe, “I may be too old to be an infusion nurse”. I discovered through reading multiple articles that the older 50-65 age group are most targeted and affected by discrimination in the workplace. However, in our oncology clinic, nurses under 45 had experienced more ageism from their peers and patients. Institutional ageism occurs when an establishment preserves ageism through policies. Interpersonal ageism occurs in community interactions. Self-directed ageism is when a person internalizes ageist beliefs and applies them to themselves. Research indicated that ageism can lead to poor overall physical and mental health. The purpose was to determine the effect of ageism and how to dispel negative outcomes. I created a REDCap survey to identify the experiences of discrimination related to age by our nurses in our oncology clinic and infusion center. Results were compiled and graphs were created to analyze data. A poster was created to educate staff on Ageism. The survey indicated 56.25% of staff 44 and younger and 40.9% of the nurses ages 45 - 67 had experienced ageism in the clinic. 63.1% of respondents stated that education would help decrease ageism. After REDCap was completed, the respondents viewed the poster. 71.3% of those who answered, stated it gave them knowledge that would reduce verbiage against ageism. Nurses stated in REDCap survey: “I had a patient tell me they wanted someone with more experience to put their IV in.”, “Occasionally, I feel peers younger than me don’t think what I am saying is true.”, “I have been looked down upon as a newer or younger nurse by older nurses when I have a different opinion.”, “You are about ready to retire, aren’t you? How much longer will you work?”, “I have been disrespected by older nurses when I am in a leadership role because of my age.”, “I

am excluded from events.” These comments corroborate the need for action through education. Nurses can learn how to decrease institutional, interpersonal and internalized ageism with education.

## P182

### USE OF INNOVATIVE TECHNOLOGY TO IMPROVE ONCOLOGY PATIENT EDUCATION

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#### Patient Education and Safety

Pre-chemotherapy education sessions for breast cancer patients is a core element of care provided by clinic nurses to patients starting chemotherapy. This is a time intensive session, which outlines symptom management and home care needs. The goal of these sessions is to improve patient outcomes by empowering them to be an active participant in their care. Though a meaningful intervention, clinic nurses spend about 30 hours per month educating first time chemotherapy patients, which has hindered their ability to complete other pressing tasks. Given current staffing challenges and restrictions to visitation due to the COVID-19 pandemic, nurses and advanced practice providers (APPs) sought a novel approach to meet this need to ensure adequate patient education while improving nursing efficiency through the usage of a virtual platform. The purpose was to implement a virtual group chemotherapy teaching session for new breast cancer patients to improve the efficiency and workload for ambulatory nurses while providing a community network for patients. Clinic nurses conduct virtual chemotherapy education sessions weekly for all new patients. This allows patients the opportunity to learn and connect with other patients going through the same or similar treatment. The educational sessions are to be held Zoom and patients access through a link sent to the patient portal. Patients are provided an education packet prior to the virtual session. These sessions can also be utilized by other patients to refresh their knowledge or gain additional nursing support. In-person teaching will still be continued for those who prefer it. Following each session, patients will be given a survey to complete. Evaluation of effectiveness in teaching will be performed utilizing the teach-back method at their first session. Both staff and patient feedback is being evaluated to assess for satisfaction with the new process. With this process, we will save 22 hours per month of nursing time. This will also allow for increased family involvement while following COVID guidelines.

Preliminary results suggest an improvement in both patient and nursing satisfaction. Utilizing a virtual format makes for improvement in both efficiency and workload for clinic nurses. In addition, this format of teaching is convenient for both patients and their families. Once this process is fully operational, we are looking at expanding this program within our care centers to hopefully produce the same results.

### **P183**

#### **TEAM BUILDING FROM THE GROUND UP**

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#### **Oncology Nursing Practice**

To continue to provide cancer care closer to home, a large urban cancer center opened its sixth regional ambulatory medical oncology clinic. The nursing and interdisciplinary team members had never worked together before opening this regional campus and many were new to the hospital system. The new site has 14 exam rooms, 28 infusion bays and over 60 team members across nursing, medical providers, administrative staff, pharmacy, and support services. Opening this new location required nurse leaders to innovate an approach to successfully integrate team members from various backgrounds, experiences, and work environments. To ensure the successful opening of a complex new ambulatory clinic, nurse leaders enacted principles of conscious leadership and team building activities to foster a supportive work environment focused on effective and open communication to empower team members. Nurse leaders utilized multiple training modalities to effectively implement team building initiatives. Nurse leaders guided team building activities that helped the team recognize when they were thinking negatively, losing trust in others, or not working in support of their colleagues. The interdisciplinary team created a list of shared values, and a nursing team charter was developed. Positive feedback was reported to the clinical specialist, nurse director, and executive leadership regarding the meaningful impact these activities had on building collaborative relationships. Critical success measures of the new clinic were met within four weeks of opening and included patient satisfaction benchmarks, turnaround times for the efficient treatment of patients, and the ability to ensure

ease of access to the clinic and support patient needs. Based on lessons learned from the opening of other regional campus locations, team building activities were recognized as a successful approach to engage new team members and foster a supportive work environment. The satellite teams continue to refer to the principles of conscious leadership to hold one another accountable throughout the day and to ensure the best outcomes for patients. The conscious leadership framework and team building activities have been added to the project plan to reference for future regional campus locations. As we onboard new team members, there is an opportunity to continue to use this framework for ongoing colleague support and continuation in this culture of conscious leadership.

### **P184**

#### **CHEMOTHERAPY ADMINISTRATION FOR THE NON-ONCOLOGY NURSE**

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#### **Oncology Nursing Practice**

Chemotherapy drugs are increasingly being administered for non-oncology purposes and in non-oncology areas. Millions of healthcare workers are employed in settings where they are potentially exposed to these hazardous drugs (HDs). Of these, over 2 million are nurses, many of whom administer these medications as part of their every day practice. To address concerns about nurse training, safe handling practices, side effect and oncologic emergency management, and ultimately patient and nurse safety, healthcare settings need a comprehensive education program for initial and ongoing requirements for staff who prepare and administer chemotherapy. Inpatient oncology leadership performed more than 300 chemotherapy administrations on non-oncology units, spending over 10,405 minutes coordinating and administering the drugs, resulting in significant time away from their own unit operations in FY21. More than 100 of these administrations were completed in the medical intensive care unit (MICU). The purpose of this project was to develop a phased in chemotherapy administration training plan for MICU nurses and decrease the number of administrations and time spent coordinating and administering chemotherapy drugs in the MICU by inpatient oncology leadership in FY22. A team reviewed literature on chemotherapy administration training recommendations and current trends on administration within the institution.

Current oncology training process was also reviewed. Feedback was obtained related to current concerns and barriers to HD training in the MICU setting. Institutional oncology leadership support was obtained for financial resources and departmental collaboration. Based on this feedback, the project developed a plan to provide education and training to MICU nurses regarding safe handling and administration of chemotherapy and assessment and toxicity management, using a phased in approach. A formalized training plan was developed, including an online didactic course, electronic medical record treatment plan training, and clinical practicum. Recommendations for annual competency and tracking were also developed. Financial support for project was obtained. Initial roll out of training plan was delayed due to COVID-19 surge at the beginning of the fiscal year. Staffing challenges and changes in leadership structure further delayed training roll out. Current training plan in progress and will begin early next fiscal year. A small cohort of nurses will be identified to complete the training and initial feedback will be obtained. Adjustments may be as needed to apply to the MICU setting based on feedback.

### **P185 INCREASING CONFIDENCE IN NEW GRADUATE NURSES THROUGH THE USE OF SKILLS DAY IN ORIENTATION**

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#### **Professional Development**

In the presence of the COVID pandemic, many new graduate nurses started their career in an atypical patient care environment. This led to a knowledge gap, lack of confidence, increased turnover, and a subsequent disservice to new nurses and patients. On this oncology medical surgical floor, the 12-month retention rate is 90.4% and 86.4% at 24 months. In July of 2021, in a large comprehensive cancer hospital a new unit specific orientation was developed and implemented to increase confidence and skills of the new graduate nurse. This program was built into the current orientation process that is four months long to enhance the experience for the new nurse improve patient outcomes. Three exclusive skill days were provided to the orientees throughout their orientation. The first day provides an overview of the unit, the clinical application system, resources available to the nurse, and professional expectations. On the second day of the program, taking place in a mannequin skills lab,

orientees are presented with a hypothetical scenario of a new patient admission. The patient requires a series of nursing skilled tasks and interventions essential for the unit's population including central line care, indwelling urinary catheter, administering blood products, and chest tube care. On the final day, the new nurses individually provide the program lead with a list of topics or skills that require further education. This is facilitated through an evidence-based policy review and hands on skill demonstration with patients on the unit. Confidence and proficiency of clinical application systems, central venous catheter care, indwelling catheter insertion, administering blood products, and using clinical resource guides, were measured using a pre and post survey. Since July 2021, 23 new graduate nurses have successfully completed the program and maintained their expected orientation timeline. Preliminary results show improvement in levels of confidence, nursing sensitive indicators rates, and decreased turnover rates. Presentation will include final data review including full statistical analysis, program curriculum, and data collection tools. Implementation of unit specific orientation provides enhanced confidence and skillset for new graduate nurses. Increased confidence in new nurses could be directly linked retention and a return on investment for the organization. The goal of the program is to expand to other nursing units with customization of specific skill sets applicable to diverse patient populations.

### **P186 DEVELOPING AN OUTPATIENT CAR T-CELL THERAPY PROGRAM THROUGH COLLABORATIVE NURSING EDUCATION**

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#### **Oncology Nursing Practice**

Chimeric antigen receptor (CAR) T-cell therapy is an evolving therapy used to treat various types of cancers. CAR T-cell therapy can potentially be a curative option for patients, but it does not come without certain risks. Patients who receive this form of treatment can develop life-threatening reactions, such as neurologic

toxicities, cytokine release syndrome, and neutropenic episodes. To ensure that these patients are safely managed, healthcare team members must be trained to identify these potential complications early and intervene appropriately. Over the years, a majority of the CAR T-cell therapy infusions have been administered to patients in the hospital setting. With additional research and familiarity of these products, healthcare institutions have begun to administer some of these products in the outpatient healthcare setting. Collaboration between the inpatient and outpatient oncology teams was vital in implementing an outpatient CAR T-cell therapy program. The oncology nursing leaders first met to review and streamline the CAR T-cell therapy nursing policies and procedures and the care of the patient across the different healthcare settings. The team then met to review the knowledge gaps, education requirements, and the needs of the nursing staff. An intricate educational plan was developed. A core group of outpatient nurses were identified to receive this targeted training. An electronic on-demand course was developed for the nursing staff to complete. After staff completed the course, they were required to attend a live in-service. Additionally all nursing staff were required to complete Risk Evaluation and Mitigation Strategy (REMS) training for the approved products before handling and administering CAR T-cell therapy. Once all of those requirements were completed, the outpatient nurses were scheduled to cross-train on the inpatient Bone Marrow Transplant Unit. This experience was crucial as it allowed the outpatient nursing staff to observe and participate in the CAR T-cell therapy administration process. Once the outpatient CAR T-cell therapy program was initiated, onsite and in-person assistance was provided by the inpatient nurses on scheduled outpatient product administration days. Future plans for CAR-T-cell therapy in the outpatient setting include conducting a needs assessment to identify knowledge gaps in administering CAR T-cell therapy and patient monitoring, collect and review feedback from nursing staff on the educational programs, and expand the amount of trained nursing staff as the program grows.

### **P187 DRIVING SUSTAINED CHANGE WITH INTENTIONAL LEADERSHIP ACCOUNTABILITY USING THE 4 DISCIPLINES OF EXECUTION™ (4DX) FRAMEWORK**

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[Oncology Nursing Practice](#)

Health care organizations and systems are rapidly adopting advances to treatment paradigms, policies and regulations, technology utilization, cost of care, workforce and consumer preferences through quality practice, process as well as policy improvement efforts. Nonetheless, process improvement failures are not uncommon (Antony, Lizarelli, & Fernandes, 2020; Gupta, et al., 2019) and result in abandonment of the change effort. The cost of failed initiatives includes tangible losses: cost of labor, data collection/analysis, overhead, and capital; and non-tangible losses: staff turnover, loss of confidence in leadership, and diminished staff engagement. It is imperative that nurses/nurse leaders have the tools to successfully execute on these key change initiatives. An NCI comprehensive cancer center recently adopted the 4 Disciplines of Execution™ (4DX) (McChesney, Covey, & Huling, 2012) framework to achieve sustained improvement towards the organizational goals. The underpinnings of this successful model are four disciplined behaviors expected from leaders: focusing on the wildly important, acting on lead measures, keeping a compelling scorecard, and creating a cadence of accountability (McChesney, et al.). 4DX implementation included several workshops with executive leadership, directors, managers, and assistant managers. The organization established the most important goal (wildly important goal [WIG]), then each department identified sub-WIGs. The managers next met with their teams to identify stipulatory leading measures aligned with the sub-WIGs. The 4DX operating system (4DXOS) was used to track progress during weekly leadership (executive leader and directors) WIG sessions and team (manager and front line staff) huddles. Since implementing the 4DX framework, improvements in various lead measures were exhibited in the institution's percentile ranking from the following Press Ganey Patient Satisfaction domains:

- Concern for Privacy: ICU: 40% to 99%, 1st Floor Medical Oncology: 51% to 100%
- Staff Courtesy: East Norriton Infusion Clinic: 29% to 73%, Radiation Oncology: 29% to 52%, Infusion Clinic Main Campus: 29% to 99%

The early successes of the 4DX implementation highlight the importance of methodic and structured

approach of both implementing process improvements tactics and focused attention to leading versus lagging measures. A consistent cadence of leadership huddles concentrated progress, challenges, and barriers was vital for executive sponsor visibility and action. Finally, leveraging the expertise of the front line staff, to identify and act on leading measures, was important for local level engagement.

### **P188** **PROMOTING NURSING LEADERSHIP AND PROFESSIONAL DEVELOPMENT THROUGH COLLABORATIVE COACHING DIALOGUE**

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#### **Oncology Nursing Practice**

Effective nurse leadership involves the ability to motivate staff, cultivate teamwork, and ultimately, improve patient outcomes. It's critical that we provide the skill set to new nurse leaders as they are expected to be a coach, leader, and a manager. With proper coaching and professional development training they will be set up to be successful in their role. There are many models that show the importance of mentoring nurse leaders but coaching at times gets overlooked. When coaching nurse leaders, the focus should be on the mindset, skill set, and toolset to truly be successful. Enhancing an individual's mindset, skill set, and toolset starts with a set of guiding principles a coach uses to develop a nurse leader's core strengths and values. The purpose of this project is the provision of didactic leadership skills as a foundation to foster open dialogue, collaboration, and discussion of real-world nursing issues with current nurse leaders. Nurse managers in a large, outpatient oncology setting were invited to participate in a leadership program. A total number of 36 nurse managers agreed to participate. Monthly sessions were developed and involve the presentation of a leadership topic/skill based on competencies involving communication, self-awareness, learning agility, and influence. These sessions were followed by thought provoking questions, group break out discussions, and collaborative dialogue directed towards problem-solving leadership strategies for real world clinical staff nursing issues.

Survey responses will be gathered from the nurse managers to determine case sceneries that best reflect real-world nursing issues. The results will also help guide the coaching of different strategies to equip nurse leaders with issues that they are currently dealing with in the outpatient oncology setting. Measuring the success

of this project will be with a self-assessment checklist from all participating nurse managers. There will also be an annual survey that will be given to the nurse manager's direct reports to evaluate the nursing leadership within the outpatient clinic.

### **P189** **WHY DOES ONCOLOGY CONTINUE TO RANK SO UNDESIRABLE BY NURSING STUDENTS AS A PLACE TO WORK?**

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#### **Oncology Nursing Practice**

The current nurse shortage in the U.S. is unlike previous shortage cycles of the past and forecasted to last well beyond 2030. Research indicates students are declined admission to nursing programs because of a nurse educator shortage. Despite the nursing shortage, recruitment of baccalaureate nursing students into the oncology practice setting after graduation continues to be a challenge. Alternatively, new nurses are opting for environments they consider to be high-tech/challenging or what society perceives as "exciting." These environments include acute-care or pediatrics and exclude those involving older adults or persons with mental health illness. In addition, when new nurses join the oncology practice arena, regardless of training, they often leave within a brief time span citing concerns of occupational safety and burn-out, resulting in the highest rate of turnover among all cancer providers. Increased disease incidence and advancements in treatment options have made the demand for oncology nurses even more dire. Since cancer affects most families in America and the number of cancer survivors is growing, there is an urgent need to explore reasons why prelicensure nursing students lack the aspiration to care for patients with cancer on a Nationwide level; a study which has not been investigated previously. This is a mix-method descriptive survey design study. Qualitative and quantitative data will be obtained through an original online survey with follow-up telephone interviews. Survey questions were derived from current nursing education literature. Recruitment will be conducted via a National Student Nurses Association email distribution. Descriptive quantitative statistics and qualitative content analysis will be used to explore students' perceptions of their experience with patients with cancer and identify aspects of clinical education they perceive as helpful in preparing them for oncology clinical care



engagement. Findings from this study will broaden our understanding of factors influencing nursing student willingness to work and care for oncology patients in the future. The study results will increase awareness among baccalaureate nursing faculty about the importance of developing both comprehensive didactic and clinical courses dedicated to oncologic nursing care. Insight obtained will be valuable to not only successfully recruit new nurses into oncology but vital for the retention of nurses in the subspecialty as well.

### **P190** **CYTOKINE RELEASE SYNDROME: AN** **EDUCATIONAL INTERVENTION FOR** **ONCOLOGY NURSES**

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#### **Symptom Management and Palliative Care**

Immunotherapy is frequently a part of cancer treatment regimens, and onset of immunotherapy side effects can range from hours to months. Prompt intervention of immune-related adverse events, which include Cytokine Release Syndrome (CRS), supports successful outcomes and may allow for continuation of therapy. Oncology patients receiving experimental immunotherapy are often admitted inpatient for required monitoring during immunotherapy administration. Therefore, the inpatient nurse's knowledge regarding CRS is crucial in enabling recognition of signs and symptoms within the hospital setting and impacts the patient, who should be taught to report CRS symptoms after discharge. Variability in inpatient nurses' understanding of Cytokine Release Syndrome and comfort level providing patient education was observed within a large oncology center. The purpose was to evaluate and discuss the outcomes of an educational intervention on Cytokine Release Syndrome which covered signs and symptoms, common clinical management, and nursing interventions and implications. The intervention targeted inpatient bedside nurses caring for patients receiving immunotherapy in a large oncology center. A training module was created to provide bedside nurses education on the definition of CRS, signs and symptoms, common clinical management, and nursing interventions and implications. Inpatient nursing was given multiple remote attendance options, and in-person presentations to individual floors were provided, prioritizing units where investigational immunotherapies are given with inpatient monitoring requirements. Participants were given an opportunity to have questions answered and a handout synthesizing key infor-

mation and resources was provided. The intervention was evaluated using an informal questionnaire, which measured self-reported knowledge regarding typical onset of CRS, symptoms, common management strategies. The questionnaire also asked participants to rate comfort level regarding providing patient education, escalating signs and symptoms of CRS to resources, and awareness of resources if CRS were encountered. Surveys were given pre/post the presentation. Results revealed overall improvement across categories of inquiry. A Cytokine Release Syndrome educational intervention as above serves as a key tool to be integrated into nursing education in centers providing immunotherapy. It supports the knowledge base and confidence of oncology nurses and increases their comfort to promptly recognize and escalate care as needed, as well as to provide relevant patient education.

### **P191** **FREQUENT DIVERSITY EQUITY AND** **INCLUSION EDUCATION CREATES ORGANIC** **CULTURE CHANGES IN NURSING PRACTICE** **TO PROMOTE HEALTH EQUITY**

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#### **Oncology Nursing Practice**

There has been a call for effective diversity, equity and inclusion (DE&I) education for oncology nursing to effectively promote health equity. The first step in eliminating health disparity is education on the issues that marginalized people experience, addressing our own biases and encouraging conversation on these topics. The purpose of this education was to increase oncology nurses' awareness of specific needs/concerns for the diverse population of the community we serve. In this context the diverse population was addressed as individual groups of traditionally marginalized people with the goal of promoting health equity. Our intervention was to add an education session each month to our monthly nursing staff meetings. Each month we completed a literature review on different race, gender, sexual orientation and other marginalized populations in regards to health equity. The information was then presented by nursing leadership in 20 minute increments, as well as accompanying videos and handouts detailing biases these populations endure and how to effectively manage these biases. We will be utilizing a survey tool at the end of the year to quantify perceived efficacy. Engagement was measured subjectively by amount of

discussion or questions. Initially there was no change in staff engagement during the DE&I portion of the staff meetings. However, post meeting there was increased comments. Each month staff engagement increased during the discussion of material and a DE&I committee was formed on the unit to help guide education and become a resource for staff who had questions regarding the material or had DE&I based safety and quality concerns. Education for DE&I should be viewed in the context of quality and safety. In this case, the education not only provided needed content but opened in a safe space to allow the discussion of DE&I concerns in the clinical practice. These discussions created organic changes that promote health equity and quality of care. Meeting the educational needs regarding DE&I topics goes further than the education itself. In order to create health equity, crucial conversations need to occur and that can only be accomplished through creating a safe space for open, honest discussion. These small changes are what lay the foundation for larger organizational cultural changes and attitudes which bring us closer to eradicating health disparity.

## **P192 PROMOTING TRANSITION TO ONCOLOGY NURSING THROUGH CREATION OF A NEW-TO-SPECIALTY RN FELLOWSHIP**

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**Professional Development**

Comprehensive cancer centers face serious challenges in sustaining a high-quality nursing workforce in specialized oncology care. Recruiting and retaining experienced nurses has become more challenging during the COVID-19 pandemic and nursing shortage, and efforts for recruitment and retention are often done in isolation with varying success. An NCI-designated cancer care center identified an opportunity to cultivate a successful transition to oncology practice for experienced nurses. The purpose was to create and implement a precision New-to-Specialty RN (NTS-RN) fellowship program to champion successful recruitment, onboarding, and retention in complex oncology workforce development. The nursing staff development team partnered with clinic leaders, human resources representatives, and frontline staff to design a pilot focused on recruiting experienced nurses who were new to oncology and supporting their integration into oncology

practice through an innovative fellowship program. A robust program structure of foundational and specialized oncology education, individualized orientation, and reflective practice has helped NTS-RNs expand their clinical expertise to successfully transition to a new specialty and continue to integrate and grow professionally within the organization. 13 NTS-RNs were hired into the fellowship program between October 2019 and May 2022. All 13 NTS-RNs (100%) completed the program and were successfully onboarded into specialty oncology roles across three clinical departments. 11 NTS-RNs (85%) remain with the organization as of September 2022. Program graduates have become preceptors, pursued higher education and oncology certification, advanced to leadership roles, joined shared governance committees, and recruited other candidates to the NTS-RN fellowship. Historically, a bias has existed against recruiting nurses from non-oncology specialties for ambulatory oncology positions. Organizations must move away from this bias and recognize the benefits gained by engaging in the unique clinical expertise and strengths experienced nurses bring from diverse specialties. Leveraging partnerships among staff development, clinic leaders, frontline staff, and human resources fosters successful recruitment, onboarding, and retention of distinctive and highly qualified candidates who are eager to transition to oncology nursing. Under this model, the NTS-RN fellowship program has become a valuable resource used throughout the comprehensive cancer center, serving to improve oncology outcomes.

## **P193 RAISING THE BAR: INCREASING CERTIFICATION THROUGH COACHING**

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**Professional Development**

Oncology certification validates specialized foundational knowledge, promotes public safety, and contributes to credibility of the profession. Certification is valued by health systems, the Commission on Cancer, and Magnet. Despite the importance of certification, it is estimated only 1% (39,000) of all RN's in the United States are oncology certified. Many strategies have been utilized to increase certification, however few

have implemented coaching. Nurse Coaching, which involves providing guidance and support to clients to achieve their goals, has been proven effective in supporting behavior change. The purpose of this project is to increase oncology certification through local chapter support by providing instruction, coaching, and supplemental resources for a period of 6 months prior to testing. The local ONS chapter supported a task force to formulate a coaching and candidate program based on fundamentals of coaching, to support successful certification. Seven coaches, who were recruited from our local chapter, were provided with education about expectations, tools (books, test prep podcasts suggestions), supportive references, and a roadmap to certification. At a kickoff event, 12 certification candidates were paired with their coach (2:1 ratio) and provided education related to expectations, timelines, and resources. Strategies to support the learning process included frequent connections with coaches and development of a social media page to share information, encouragement, and celebration. All candidates & coaches were given a pre-survey to assess their level of comfort with their roles and expectations. Repeat surveys will be completed at the end of the program by December 2022, including request for barriers and best practices. Each candidate will be tracked for satisfaction, pass/fail, or resignation from the program. A recognition ceremony for successful candidates is planned. With Magnet certification requirements, along with ever-growing workplace stressors, area hospital systems have implemented programs to encourage certification with minimal success as evidence by chapter member feedback. Providing personalized support, beyond a review course, at the chapter level, allowed oncology nurses from different backgrounds to come together and share experiences to promote professional advancement of peers. Thus far, feedback has been positive, although the majority of our candidate have not yet tested. Our chapter hopes to maintain and expand this program next year to continue to support our local members.

#### **P194** **AMBULATORY ONCOLOGY NURSE BILLING** **AND CHARGE CAPTURE: OPPORTUNITIES** **DEVELOPED DURING POST-COVID** **RECOVERY**

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**Oncology Nursing Practice**

COVID-19 recovery presented nursing leadership with opportunities to document productivity measures for oncology nursing services rendered and potentially impact revenue. A nurse billing and charge capture committee composed of network nursing and revenue department team members was convened to establish billable and productivity related nursing tasks. The purpose was to identify ambulatory oncology nursing practice that would generate billable revenue, identify non-billable tasks that could generate statistical codes to measure productivity, and create an educational plan to implement changes in nursing practice to support billing. Committee leads identified key stakeholders from each of the health system network sites to participate. The committee assessed and categorized nursing practice into actions such as central line maintenance and phlebotomy to support nursing revenue (billable) versus distinct productivity measures that were documented by nursing time (non-billable). Both groups included the nursing professional development specialists who engaged nursing informatics and the IT department. Their collaboration led to standardized nursing documentation using EPIC smart phrases, charge capture codes, and stat codes for productivity. The revenue integrity team ensured charges and statistical codes were compliant with regulatory standards. EPIC analysts optimized nursing documentation by creating smart phrases to support billing and track nursing time. Departmental reports used the smart phrases to identify patients to support nursing documentation compliance. For non-billable items, the smart phrases and documented time interval were used to capture productivity. The reports were monitored for nursing documentation and charge capture compliance. In the first two fiscal quarters, 1,421 nurse billing items were documented as well as 1,648 non-billable items that totaled over 440 hours of nursing time. Results were discussed at leadership and staff meetings. The revenue group identified and prioritized a list of oncology nursing functions that were associated with chargeable specific Current Procedure Terminology (CPT) codes. Initially, two nursing tasks, central line maintenance and therapeutic phlebotomy, were implemented. Other chargeable tasks that followed included in person chemotherapy and pre-operative/post-operative teaching visits, port assessment, chemotherapy pump and peripheral line assessment follow up, dressing changes and skin assessment. The productivity group defined

and prioritized a list of productivity measures which included telephone encounters, authorization and registration, form completion (FMLA, disability, prior authorization, and oral medications), chemotherapy and preoperative/postoperative teaching which occurred in tandem with provider visits or by video or telephone.

## **P195**

### **FILLING THE GAP: SUPPORTING THE EXPERIENCED RN'S TRANSITION TO ONCOLOGY NURSING BY IMPLEMENTING A FELLOWSHIP PROGRAM**

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#### **Professional Development**

A strong oncology workforce is necessary to deliver high-quality cancer care across the continuum. With an increasing cancer population, aging workforce, and the overall nursing shortage, organizations are recruiting experienced new-to-setting nurses to meet staffing needs. While there is a large body of evidence on newly licensed nurse training programs, there is less evidence and examples of transition to practice (TTP) programs for nurses entering a new clinical specialty. These nurses require support and specialized training to overcome the complexities of a new specialty, and to develop competence in oncology practice. A comprehensive multimodal oncology fellowship program was developed and implemented to support experienced nurses transitioning to oncology practice. A collaborative of nurse educators and talent acquisition specialists designed a 6-month multimodal training program for newly hired experienced nurses transitioning to oncology practice. The fellowship program consisted of weekly classes for the first 2 months followed by monthly seminars for 4 months. The program also included a skills day, structured mentoring, shared governance activities, and incorporated the web-based ONS® Oncology Nurse Orientation Program (ONS ONOP). Evidence-based curriculum focused on a variety of oncology and patient care specific topics in addition to wellness and professional resilience. Each class started with a wellness practice, followed by ONS ONOP self-study, then review of the ONS ONOP top-

ics, and ended with presentations from content experts. Nurse retention, program completion, and clinical competence were measured to determine effectiveness of the fellowship program. Retention of the 24 nurses enrolled in the program was 100% at the completion of the program and currently remains at 100% after 7 months. Program completion rate was 92% with 22 nurses completing the entire program. Clinical competence was measured using the ONS® Oncology Nurse Generalist Competencies at the beginning and completion of the program. A statistically significant increase in level of competency at completion of program was seen across all 36 competencies. Findings suggest that a multimodal fellowship program is effective in maintaining high retention rates and developing clinical oncology competence in nurses new to the specialty. The success of the first cohort in February 2022 led to a second cohort launching in July 2022, with a plan for 2 cohorts annually. Implementing a transition to practice program can promote the delivery of high-quality cancer care and ensure nurses entering oncology are successful in clinical practice.

## **P196**

### **ACROSS THE DIVIDE: EDUCATION TO CLOSE THE GAP ON FINANCIAL TOXICITY IN ONCOLOGY PATIENTS**

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#### **Professional Development**

Treatment for a cancer diagnosis carries the risk of many forms of toxicity, including financial toxicity. We know oncology patients are concerned about the cost of their care (ASCO, 2018), and we know many patients who would qualify for financial assistance do not apply (Aviki et al, 2021). It was not clear however how this impacted nurses. In seeking to understand their perceptions and education, nurses and nursing support staff at an NCI designated cancer center were surveyed. While 72% of nurses felt they should play an active role in mitigating financial toxicity, only 1% reported receiving any training in school and 8% on the job for how to handle cost of care concerns. Acknowledging this gap, an interprofessional group led by an

NPD Practitioner designed content that would cover the definition of financial toxicity, internal metrics, a process for screening and referral to financial resources, and how to sensitively manage cost of care conversation. This was carried out in live targeted sessions, via enduring module, and through use of embedded champions. Recognizing the interprofessional nature of the issue, sessions were carried out for administrative staff, financial services representatives, social work, and advanced practice nurses in addition to RN staff. Since initiation of this novel approach, we have seen an 850% increase in the number of referrals for financial assistance, with the vast majority coming from nurses. Future work centering around harnessing the influence of educating and empowering nurses on this issue as it applies to oncology could serve to further lessen the gap between patients who would qualify for assistance and those who apply to receive it.

### **P197 BRIDGING THE GAP: IMPLEMENTING STANDARDIZED ONCOLOGY EDUCATION TO UNLICENSED ASSISTIVE PERSONNEL (UAP)**

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#### **Professional Development**

Unlicensed assistive personnel (UAP) are key members of the oncology healthcare team, who provide essential patient care under the supervision of a Registered Nurse or Physician. UAPs in our institution consist of Medical Assistants, Ambulatory Care Associates, Patient Care Technicians, and Patient Care Associates, who carry many roles in the inpatient and outpatient setting. However, given variations in their training programs, UAPs were found to lack understanding of oncology care basics, which has led to patient safety events, such as inaccurate fall and pain screening, inconsistent use of personal protective equipment with post chemotherapy patients, and inaccurate height and weight measurements. The education team identified the need to develop specific oncology education for UAPs. The purpose was to implement standardized oncology education to all UAPs at our comprehensive cancer hospital. The goal is to improve screening compliance, decrease falls based on appropriate screening, and decrease safety events related to inaccurate heights

and weight measurements. Educators created content tailored to the scope of practice in UAPs. Standardized education includes cancer basics, central line chlorohexidine bathing, neutropenia and thrombocytopenia precautions, vital signs accuracy (including height and weight), fall prevention, reportable symptoms, and safe handling and disposal of hazardous waste. All UAPs (new and established) throughout the system will be expected to attend a 4-hour virtual education session. A wrap up game will effectively test their knowledge in areas covered. All UAPs were given a pre-survey to assess their baseline level of understanding of class content. A post-survey will be distributed after education is provided to determine the effectiveness of class (i.e. increase understanding), their feedback, and suggestion for additional topics of interest. Oncology specific education is an essential component to the onboarding of UAPs. Our expected findings suggest that oncology specific education will positively impacted patient care, while creating a sense of comradery. Additional topics suggested by UAPs will be considered for future education sessions. A novel class was created to address needs of unlicensed assistance personnel.

### **P198 CAR-T EDUCATION: SUPPORTING THE RESEARCH PROCESS**

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#### **Patient Education and Safety**

Although CAR-T is becoming a more common treatment, multiple clinical trials with a variety of research products are underway. Most of the CAR-T products at our facility are infused in the bone marrow (BMT)/ICU area due to the incidence of complications. A recent clinical trial for solid tumors patients was initiated on the hematology unit. Educational information and tips from prior implementations were employed to develop the offering. The purpose of this educational offering was to provide training for unit staff based on identified competency for two groups: superusers and supportive nursing staff. This type of educational offering is known as competency based education. A team was created to plan the educational offering. Members of the team included nursing leadership from the BMT and hematology units, research team, oncology educator, and clinical nurse specialist. Content was based on generic information related to CAR-T. Specific information on the clinical trial was provided separately by the research team. Superusers were identified to



administer the clinical trial medication and initial management. Supportive nursing staff provided post-infusion monitoring and management of complications. Multiple educational sessions were available for staff. Superusers sessions were held separately. All sessions had both an in-person and virtual option. Multiple patients were treated on the clinical trial. Staff verbalized understanding of therapy, management of complications, and available resources. During infusion of the product, clinical issues related to administration and post-infusion were not identified by the superusers. Additional clinical resources (research team, clinical nurse specialist) were present for infusions of patients in the trial. Although administration went well, several process issues were identified. Required lab draws, prior to administration, led to a delay in product infusion. The research team resolved the issue, and no further delays were experienced. Post infusion, the education team discovered that documentation tools utilized by BMT/ICU staff were not available to the hematology unit. A paper resolution was put in place while awaiting a solution from the EHR team. (1) Competency based education identifies learning needs based on the specific nursing role. (2) A hybrid education model was utilized allowing staff to participate in the education offering in person or via a virtual meeting.

### **P199** **DYNAMIC, NOT PANIC: COPING WITH THE DECLINING PATIENT IN RADIATION ONCOLOGY**

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[Professional Development](#)

Emergency situations are a part of medicine, but their unexpected nature adds to staff and patient anxiety. Cancer patients undergoing radiation alone or in combination with chemotherapy are at risk for complex adverse effects. Staff need to recognize that emergencies can present in different ways and intervene quickly and knowledgeably to avoid mortality and morbidities. Evidence shows that a multidisciplinary approach is more effective in addressing these situations and critical thinking provided through simulation training is evidence-based. Although simulation shows an increase in confidence and ability to critically think during emergencies, very little information exists in the literature on the use of simulations training for oncological emergencies. When a declining patient is identified, it

is essential for staff to act as a team to avert more complications and possible death. Because of this need for collaboration and to incorporate appropriate PPE due to COVID-19, simulation training and mock codes were critical components of the educational program. To improve emergency management of declining patients, a standardized educational program, including simulation training was provided to a multidisciplinary staff within the radiation oncology unit. Pre-assessment questionnaires were sent to all radiation oncology staff who cared for patients at risk for declining conditions. The training sessions were intentionally kept small to promote hands-on learning and open dialogue. Staff then had “hands on” education with simulation that included how to use, connect, and prepare emergency equipment; inventory supplies in each drawer of the “crash” carts, including medications; and understanding of roles and responsibilities. The exercise ended with all staff working together as a team to complete patient scenarios. Post-assessment questionnaires were sent to participants which confirmed an increase in confidence, critical thinking, and an increased feeling of teamwork during an emergency. Because of the small group sessions, staff reported that they felt comfortable asking specific questions and were not afraid to make mistakes. Implementation of the standardized simulation educational program proved to be effective at increasing staff confidence and teamwork during oncologic emergencies. Analysis of the data suggests that staff appreciated the opportunity to be part of the simulation experience and declining patient situations have become a team effort with delineated roles and responsibilities to ensure safe patient care.

### **P200** **STANDARDIZATION OF NURSING ONCOLOGY INFUSION: ENGAGEMENT OF FRONTLINE ONCOLOGY NURSING ACROSS OUTPATIENT INFUSION SITES TO MEET WORKFORCE CHALLENGES**

**JoAnn Silcox, RN, MSN, CCCTM®, Thomas Jefferson University Hospital, Philadelphia, PA**  
[Oncology Nursing Practice](#)

The critical staffing crisis during the pandemic presented the need to share resources across six (6) outpatient oncology and non-oncology infusion sites. Lack of staffing resources continued post pandemic with skilled outpatient nurses leaving hospital based practices for roles with flexible schedules and opportunities to work from home. Nursing Management created innovative strategies to address resource management, standardization of nursing practices, standardization

of EMR platforms, and addressed retention efforts for staff. This presentation will outline nursing management strategies on engagement of front line staff, providers, pharmacy and use of the EMR system to create harmonization of practices across each infusion site. Nurse Managers engaged each charge nurse from the respective infusion unit to develop a daily huddle addressing organizational and operational deficits. Issues as complex patients, scheduling challenges, add on therapies, and staffing needs for the day, week and urgent requests were reviewed and a plan to support was immediately identified. Standardized quality nursing practices across sites needed to be prioritized. Standardized processes for provider order templates in the EMR, infusion administration practices and nursing care of all therapies needed to be developed. Insurance authorization of infusion therapy required the ability to be scheduled in any unit, supporting access for emergent side effects and symptom management of oncology patients. Patient scheduling needed to be standardized to promote timely access to same day infusion therapy. A central scheduler role was developed and access granted to all infusion schedules. A scheduling process was created to support one call to add on patients from all clinics, and infusion units. The central scheduler attended the daily charge huddles to prioritize which infusion unit would take the first emergent admission. Use of EMR nursing documentation and communication with other disciplines was identified as an opportunity to harmonize. Frontline staff from each infusion unit met with EPIC representatives to create standardized workflows across each unit. Flexible staffing was created for all team members. Innovative scheduling, sharing resources during high volume times was implemented. Appropriate assignments were provided for non-oncology nurses rotated to oncology infusion units. Staff are currently the process of acquiring chemotherapy competency. Training will be completed in oncology infusion units, educated by staff they are already familiar and engaged. Barriers and gaps will be identified and plans for future initiatives will be outlined.

## **P201 OUTPATIENT AMBULATORY NURSING: INNOVATIVE MANAGEMENT STRATEGIES FOR RECRUITMENT AND RETENTION OF ONCOLOGY NURSES.**

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[Professional Development](#)

Outpatient oncology units today are challenged with

nursing vacancies, medical leave of absences and staff resignations. Monday thru Friday schedules no longer attract skilled inpatient oncology nursing staff to apply to outpatient settings. Nurse Managers in outpatient infusion units and clinics struggle with recruitment and retention of skilled oncology nurses. Nursing leadership is challenged to create cost-effective, innovative staffing patterns and harmonized workplace environments, to attract skilled oncology nursing staff, and support retention in outpatient ambulatory settings. Nurse leaders are required to demonstrate competencies to manage today's fiscal responsibilities and current nursing climate. To address recruitment and retention concerns, the following management strategies were implemented. Inpatient nursing staff were cross trained to outpatient infusion sites to support staffing needs, provide outpatient experiences, promote individual professional growth and exposure to ambulatory care of the oncology patient. Charge nurses of four infusion units created a daily huddle, engaging frontline staff in decision making and professional practices. Collaborative decisions were made regarding shared staffing, flexible nurse scheduling, standardization of nursing practices and patient scheduling across infusion units. Shared EMR platforms and harmonization of nursing documentation across infusion units, outpatient clinics and other disciplines, promoting effective care coordination and standardized practices was implemented. A new Clinical Ladder program is being offered to outpatient nursing to promote professional development and nurse retention. The program was originally only open to inpatient nursing and as a result of recent staffing and recruitment challenges nursing leadership requested the program be offered to oncology outpatient areas. For the first time, senior nursing students completed their capstone requirement in outpatient units. Over 25 senior nursing students finalized course requirements in the outpatient areas, introducing nontraditional pathways for new to practice nurses. This presentation reviews nursing leadership strategies and competencies required to manage current oncology nursing workforce crisis in outpatient oncology sites. Leaders facilitating relationships to empower frontline staff across multiple infusion sites to be participants in change management will be reviewed. Standardization of nursing practices and effective use of an EMR system across settings will be highlighted. Opportunities to partner with schools of nursing introducing nontraditional pathways in outpatient settings to new to practice nurse's outpatient is reviewed. Barriers have been identified and strategies to address gaps will be outlined.

## P202

### EXPANDING ON SUCCESS: GROWING YOUR ONCOLOGY NURSING CAREER

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#### Professional Development

With multiple years of experience involving different aspects of oncology, the authors noted an increase in personal confidence and job satisfaction. The authors attributed this to their involvement in professional development activities such as oncology conference attendance, focus group participation, and professional organization participation at the local and national levels. Nursing is one of the most demanding professions. There are countless tests and examinations throughout nursing school at the foundation level. Once a nurse earns their degree, the learning curve shifts from the examination of nursing theories and passing tests to the hands-on experience of keeping a patient alive. As an Oncology nurse, the learning continues as new treatments emerge, technology evolves, and patient goals change. Collaborating with a professional organization enhances a nurse's confidence and satisfaction. Developing clinical expertise and a high level of competence takes time. Boundaries must be pushed to obtain professional satisfaction. A nurse's professional satisfaction represents professional quality of life (Jang, Kim, & Kim, 2016). An individual who finds a relationship between their personal beliefs and their profession will care more about their professional future and remain in it. (Chang, Shyu, Wong, Friesner, Chu, & Teng, 2015). An exploratory survey was sent to oncology nurse navigators in a nationwide hospital system to capture experiences and perceptions of professional job satisfaction. With a response rate of 52%, 95 participants completed the survey. Job satisfaction was rated on a scale of 1-10, with 10 being the highest level of satisfaction. With a range of 6-10, the mean score was 8.87. 82% of participants rated a 9 or 10 on the scale for job satisfaction. Of those nurses with high job satisfaction (9 or 10), 90% reported that attending conferences increased their confidence as an oncology nurse. One theme observed was that those with longer years of experience did not consider themselves experts in their field. Future analysis, with statistical analysis such as an ANOVA, may help identify other themes and commonalities related to years of experience and perception of expertise.

## P203

### OPENING AN ONCOLOGY AMBULATORY INFUSION SPACE WITHIN A HOSPITAL FROM A NURSING EDUCATION PERSPECTIVE

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#### Oncology Nursing Practice

The demands of oncology care in an ambulatory setting continues to grow alongside the innovations of oncology care. At an NCI designated ambulatory cancer center, the capacity to support care in a timely manner is challenging for acute episodic supportive care such as blood product and hydration needs. To support volume demands and mitigate capacity constraints, an ambulatory infusion unit was opened at the inpatient hospital staffed with inpatient oncology nursing staff. Although leveraging oncology nursing expertise was seen as an asset, to ensure safe patient care the care setting in which they practice was a critical component to developing training. The purpose was to create a training curriculum for inpatient oncology nurses to deliver care in ambulatory clinic situated within the hospital staffed with inpatient nurses. Two advanced practice oncology nurse educators, in collaboration with operational nursing leaders, performed an assessment of nursing practice between inpatient and the ambulatory care setting. Priority topics were identified and included navigation of the ambulatory electronic health record, nursing assessments, care coordination, communication pathways, and emergency response. Differences in practice related to central line care, blood product administration, and medication administration were aligned and addressed through policy and procedures. Education and training were delivered through a didactic presentation and simulations of workflows during a full-day orientation. At the time of opening, "at-the-elbow" support was provided by an advanced practice oncology nurse educator to help navigate the new setting. The acuity of oncology patient care in meeting the demands of the growing ambulatory care. Oncology nursing expertise is impacted by the setting in which they practice. It is important to recognize the differences between ambulatory and inpatient settings to ensure safe patient care and nursing support. The curriculum and training successfully support the alignment of best care practices for the oncology patients in the new ambulatory infusion clinic.

## P204

### DISEASE SPECIFIC EDUCATION FOR THE NEW AMBULATORY ONCOLOGY NURSE

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#### **Professional Development**

To meet the growing demand for ambulatory oncology nurses, it has become necessary to fill positions with nurses who have no prior oncology experience. A vast amount of knowledge must be covered in orientation for a new nurse to be competent in ambulatory oncology care. Despite our existing robust orientation schedule, we found our nurses lacking knowledge and confidence for the disease populations that they encountered. The purpose was to improve the new oncology nurse's understanding of treatment modalities, drug regimens, and adverse effects of cancer treatments by providing disease specific education. New nurses hired into the ambulatory oncology setting with no oncology experience attended eight weekly education sessions during their orientation period that focused on major cancer diagnoses. These classes were held virtually and lasted 90 minutes. The cancers highlighted included breast, gastrointestinal, head and neck, esophageal, lung, prostate, ovarian, testicular, lymphoma, and multiple myeloma. These classes provided more in-depth information on treatment modalities, pharmacologic rationale for combination regimens, and treatment cadence. Emphasis was placed on fostering understanding of factors that influence selection of cancer treatment regimens and nursing considerations based on what drugs are being administered. At the completion of orientation, these nurses were given a key survey and asked to comment on what worked well during their training. All respondents reported that they found the disease specific education classes beneficial. Participants also commented that they would like to have supplemental home learning materials provided to them. The ambulatory oncology setting is a fast paced environment that requires nurses to provide treatments to 6-8 patients with differing diagnoses and a multitude of drug regimens. A typical orientation schedule for a new nurse includes completing the ONS/ONCC Chemotherapy Immunotherapy Certificate course and a three-day Fundamentals of Oncology course that is offered at our institution. Addition of these disease specific education sessions enhances the new nurse's understanding of the complexities that surround caring for the oncology patient. It allows them to apply knowledge to patient case studies and build competence. This project was innovative since the education sessions were recorded and uploaded to a secure video sharing platform. This allows educators to assign

the videos at times that are convenient to the scheduling needs of each individual unit.

#### **P205**

#### **PILOTING THROUGH AN ONCOLOGY ORIENTATION CLOUD**

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#### **Oncology Nursing Practice**

Our institution has both inpatient and ambulatory oncology settings that each developed their own orientation process specific to their site. There was a basic framework of expectations on courses and competencies but no standardization on the delivery of information. After completing a literature search, it became evident there is a need for standardization of orientation materials and a creative way to deliver the content. The creation of an online orientation platform would facilitate and standardize delivery of oncology education across the healthcare system. This module provides support during onboarding of inpatient and ambulatory nurses and remains available as a resource after orientation is complete. Key pieces to this platform is that it is user friendly, easy to update, easy accessibility, and the nurse can review content at their own pace. In addition, the institution can keep a record of their completion and it can be used as a guide for the preceptor to validate competency. A module was created in our existing online learning management system. It provides oncology specific content such as access to slide decks from the mandatory oncology classes, skills checklists, and links to resources such as symptom management, documentation, medication specific topics, policies and resources. The content was streamlined to separate the differences in care areas of the inpatient and ambulatory nurses to make this tool succinct. In June 2022 the module was assigned to all inpatient/ambulatory oncology nurses to introduce them to the new format. An attestation statement is imbedded within the module to document completion. Feedback from the participants is on-going and will drive the changes in the module content. The creation of the material using this platform allows us to keep current with the most recent EBP. Adult learners today are familiar with technology and this platform provides a continuum of this learning style from the collegiate level to bedside. The ease of use makes it straightforward for learners who are technology challenged. Limitations to this process include difficulty ensuring that management assigns the new hires the module and that content is reviewed

on a scheduled, periodic basis to ensure it is accurate and up to date. It is important to note that while the attestation statement provides documentation of review it does not provide evidence that a full review was completed.

## **P206 LEADERS COMING TOGETHER TO MAKE A DIFFERENCE ONE ROLE AT A TIME**

**Vickie Thomas Januska, MBA, BSN, RN, NA-BC, Seidman Cancer Center, Cleveland, OH**

*Oncology Nursing Practice*

Prior to the pandemic, inpatient leaders were typically present in the cancer center during business hours throughout the work week. As the pandemic evolved, the inpatient leaders were faced with new challenges, challenges that made it apparent that the cancer center was in need of in-patient leadership presence 24 hours a day, 7 days a week in order to better support staff and the oncology patients. The purpose was to showcase the development of the oncology nursing supervisor role in one cancer center with the achievements of teamwork, clinical support and patient outcomes. Due to the new challenges, the goal was to establish 24/7 leadership presence in the cancer center while utilizing current resources. Based on the goal, the inpatient leaders quickly pulled together, devised a creative and collaborative plan, one which provided the necessary leadership coverage for the inpatient areas. This was achieved by the inpatient leaders working several different 12-hour shifts each month in order to provide in-house coverage for the staff and patients. During the time that the inpatient leaders provided coverage, they worked to establish new workflows and expectations across the in-patient oncology areas in order to build teamwork and improve outcomes for patients. Based on the success of the first year, the oncology nursing supervisor role was established and two permanent supervisors were hired for the cancer center. As the role continued, it brought positive change to the cancer center. Evidence of the positive change was change nurse huddles, utilization of resources, off shift/week-end staff education, reduction in restraints, resolution of urgent issues and assistance with skills at the bedside. Over the course of 2 years, the inpatient leaders and supervisors had the ability to advance care in the cancer center by continuing to evolve this "hands on" supervisor resource role for the cancer center. Staff feedback and patient outcomes allowed for the posting of 3 additional fte's in order to support this unique role 24/7. In response to positive feedback and patient outcomes, the oncology nursing supervisor is now incor-

porated into the model of care for SCC. The collaboration between the nurses and the leaders has resulted in a meaningful resource, the oncology supervisor role, one that improves outcomes for staff and patients. The oncology supervisor role will continue to evolve in the future.

## **P207 INITIAL CHEMOTHERAPY COMPETENCY THROUGH SIMULATION**

**Mary Caroline Trullo, MSN, RN, OCN®, Baptist Health, Jacksonville, FL**

*Oncology Nursing Practice*

Chemotherapy competent nurses are essential for patient safety and standards of care in our facility. A critical shortage of both outpatient infusion nurses, and inpatient floor nurses limited the opportunity and timeliness for cross-training, since inpatient nurses typically would complete their chemotherapy competency in the infusion center after completing the Fundamentals of Chemotherapy class. The gap between class and competency had grown to 3-6 months. The purpose of this project was to increase the number of chemotherapy competent nurses and shorten the time between class and competency, while decreasing the training burden of the infusion center and the inpatient oncology floors. The solution was to partner with nursing leadership and the simulation center to create a simulation to assess/validate competency. A well-constructed, psychologically safe simulation can demonstrate a mastery of skills, assess knowledge gaps, avoid preventable medication errors, and increase job satisfaction. In partnership with the simulation center, we developed a realistic scenario, based upon standards from the International Nursing Association for Clinical Simulation and Learning. The simulation mimics the chemotherapy administration process, from receiving report, reviewing orders, calculating dosages, and administering chemo with a simulated patient. The facilitators observe from behind one-way glass to ensure objectives and competency items are met. Once complete, nurses may start administering chemotherapy on the unit. This new simulation has been used twice with positive evaluation feedback on the post-simulation questionnaire. The participants expressed they felt the experience was supportive and educational without the intimidation factor of a real situation, and they felt prepared for patient interaction. The nurses have gone on to successfully administer chemotherapy on their units. Intentional rounding by educators will monitor progress and assess any needs. Going forward, this simulation will be mandatory for all new inpatient



oncology nurse hires as a Part Two to our Fundamentals of Chemotherapy class and offered within 14 days of the class, accelerating the timeline to establish more chemotherapy competent nurses. After gaining experience on the units, nurses are also expected to obtain their ONS provider cards. Although in the early phases of implementation, the use of simulation has already proved beneficial from a staffing and patient safety perspective. It is sustainable and is easily incorporated into a nurse's orientation. Nursing leadership will continue to monitor progress and elicit feedback from participants.

## **P208 REVITALIZING ONCOLOGIC PATIENT SAFETY IN THE INTENSIVE CARE UNIT: LEVERAGING TECHNOLOGY-ENABLED COMMUNICATION TO ELIMINATE PATIENT FALLS**

**Erin Waldron, MSN, RN, CNL, Fox Chase Cancer Center, Philadelphia, PA; Jenna Booth, MSN, RN, PCCN, Fox Chase Cancer Center, Philadelphia, PA**

### **Patient Education and Safety**

The worsening nursing shortage in the United States, coupled with staffing challenges related to the COVID-19 pandemic, has inspired nursing leaders at a 100-bed urban cancer center to develop a Safety Huddle. This patient safety strategy, aimed at improving change of shift communication practices of an 8-bed intensive care unit (ICU) within the cancer center, was implemented at the onset of the COVID-19 pandemic. The Safety Huddle yielded a positive impact on patient care outcomes related to fall prevention. All ICU staff were informed of the priority organizational and unit patient safety goals and collaborated with an all-in mindset and a laser focus on keeping our patients safe. In September 2022, this ICU celebrated two consecutive years of being fall-free. The initial intervention was implemented in April 2020. It began as a checklist of pertinent information that each staff needed to know prior to delivering care for their shift. The Safety Huddle process was reviewed by the lead nurse on the unit and shared with staff nurses, nursing assistants, and unit secretaries at the nurses' station at every change of shift. Each week, the Safety Huddle was updated with the latest information.

In January 2021, the Safety Huddle was disseminated to all ICU staff via email in order to facilitate timely communication. During this time, the cancer center transitioned from a hybrid system consisting of paper and minimal electronic charting to an electronic medical record (EMR) effective as of May 2021. The next quarter, starting in September 2021, the ICU recog-

nized 365 days without a fall and posted a celebratory banner at the entrance of the unit to showcase the commendable efforts of the team. The organization's Evidence-Based Practice & Research Council conducted a review of the fall risk assessment tools within the cancer center and at the calendar year close of 2021, adopted the Johns Hopkins Fall Risk Assessment Tool (JHFRAT) that was embedded into the EMR. The Safety Huddle was recently restructured with an addition of a Zero Harm Dashboard, that highlights the number of days since the unit's last significant quality indicator event. To date, the ICU has maintained 730 days without a patient fall. Distributing effective communication and utilizing technology, through a continuous quality improvement framework, has been paramount to our team's success in exceeding such a critical patient safety goal.

## **P209 CONVERSION OF AN INPATIENT UNIT TO AN ONCOLOGY BIOCONTAINMENT UNIT TO PROVIDE ONCOLOGIC NURSING CARE DURING THE COVID-19 PANDEMIC**

**Kelly Wargo, MS, RN, BMTCN®, The Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins, Baltimore, MD**

### **Coordination of Care**

Best practices for clinical care delivery among Covid-19 positive and negative patients within the same inpatient oncology unit were unknown in March of 2020. Oncology leadership collaborated with the hospital epidemiology and infection control department at this NCI designated Comprehensive Cancer at the start of the pandemic and determined that Covid-19 positive oncology patients requiring inpatient care be admitted to the biocontainment unit (BCU) in the main hospital. This meant non-oncology nurses cared for cancer patients. Covid-19 cases surged at this academic medical center starting in December 2021 due to the Omicron variant strain. This very contagious strain affected oncology patients much more than previous strains. Patient care challenges emerged, and the need for trained oncology nurses became evident. Since there was a lack of evidence regarding the safety of caring for Covid-19 positive and non-Covid inpatient oncology patients within the same unit, a five-bed inpatient oncology BCU was opened within the cancer center. Conversion of five beds to a negative pressure BCU was facilitated by infection control and clinical engineering. Inpatient oncologic care was anticipated for hematologic and solid tumor malignancies. Nurses with expertise from each of these areas was needed. The

oncology nurse manager team met daily to plan staffing the beds based on the patients admitted. Resource coverage was provided by the clinical nurse specialist and oncology educator group. Workflows and education were developed and implemented related to the BCU especially donning/doffing personal protective equipment. Quality initiatives such as central line and safety rounds were maintained. This unit was operational for five weeks and treated 18 COVID-19 positive oncology patients. Oncology staff were cross-trained to this unit from five inpatient areas and included 35 oncology registered nurses and 44 support staff. Opening an oncology inpatient BCU in our cancer center allowed oncology nurses to provide safe, quality cancer care to COVID-19 positive oncology patients. This dedicated BCU closed when the number of Covid-19 oncology patients decreased. Covid-19 positive oncology patients are now safely cared for in the individual negative pressure rooms located on each oncology inpatient unit because of the best practices developed during this time. Staff expressed appreciation at coming together from different units to care for Covid-19 oncology patients during this crisis. This successful cross-coverage concept is now helping address staffing issues faced in this post-Covid era.

## **P210 IMPLEMENTING DAILY SAFETY HUDDLES IN THE AMBULATORY INFUSION SETTING**

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### **Coordination of Care**

As HRO principles and practice have been increasingly utilized and proven to improve the quality and efficiency of healthcare in the hospital setting, ambulatory settings have largely remained unaddressed. With increasingly complex care being transitioned to the outpatient setting, it's important to confront the unique needs and challenges of the ambulatory environment. Considering the differences in support and infrastructure from the hospital setting, ambulatory areas are rife with opportunity to implement HRO tools to facilitate open communication around patient safety and workflow as possible. Our ambulatory infusion setting is part of a large academic medical center and includes 48 available infusion bays with 80 to over 100 patients scheduled for treatment daily. Considering our high volume of patients, complexity of treatments, and our need to coordinate with several different covering medical groups, we thought it was important to go be-

yond the implementation of weekly interdisciplinary HRO huddles, and address the daily issues that arise in such a demanding setting. These daily huddles serve to engage team members in discussing anticipated challenges of each day, specific patient issues, as well as thinking critically about problems and inefficiencies that arose from the previous days. Through 10-minute, standardized charge nurse led huddles that occur each morning we aim to improve employee engagement scores, patient satisfaction scores, and decrease occurrences of preventable patient harm. The implementation and benefits of these daily, multidisciplinary safety huddles are likely beneficial to a large variety of ambulatory oncology settings.

## **P211 IMPLEMENTATION OF ONS ON DEMAND ONCOLOGY NURSE ORIENTATION ACROSS 5 REGIONAL ONCOLOGY CLINICS**

**Renee Yanke, ARNP, MN, AOCN®, Kaiser Permanente of Washington, Seattle, WA**

### **Professional Development**

The Puget Sound Chapter of ONS conducted a successful 3 day in person course for new oncology nurses for many years. The advent of the ONS online courses and the COVID pandemic ended this program. Institutions depended upon the online education from ONS and preceptors for orientation, especially if they did not have a formalized oncology orientation program. Many staff felt the online program was dry with an overwhelming amount of information. Our regional oncology program has 5 oncology clinics across the Puget Sound Region ranging in size from 5-21 infusion chairs. The number of new staff was variable and resulted in inconsistent regional training. The ONS On Demand platform for the orientation program can provide more interactive education with new staff. Utilizing a virtual community, all new staff can meet weekly with the Oncology CNS for discussion, questions and team building across the region. New staff with limited oncology nursing background are registered for the Nurse Orientation Program and given time during work to complete modules. The group meets weekly following the completion of each module for discussion and cohort education. Additional On Demand courses can be assigned as needed and identified by all the oncology nursing staff. The initial evaluation is as follows:

- Nurses fill positions at different times and conducting the course at specified times during the year may be more successful, i.e., every 4-6 months.
- Staff need scheduled time for module completion. Implementation of the process is ongoing, and initial

changes were made as listed above. While staff are officially in orientation, it is difficult to block time for study because nurses feel they need to assist coworkers in patient care. Leaders need to provide time for study. Additional discussion includes the following:

- The effect of nurses working through modules at different rates yet participate in weekly discussion.
- What additional information can be gleaned from the orientation program and developed into additional training based on organizational needs?
- What is potential for expansion to non-oncology nurses and medical assistants?

The initial group had staff members from Infusion, Clinic, Radiation and Navigation teams and they value the interaction with others. Nurses will participate in formalized orientation that fosters engagement with colleagues across the region. Future considerations may be to mentor experienced nurses to lead groups, and possibly conduct a chapter wide experience.

## **P212**

### **IMPACT OF STRUCTURED MENTORSHIP IN NURSING RESIDENCY PROGRAMS**

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#### **Professional Development**

With unprecedented challenges facing healthcare systems, resident placement in ambulatory settings supports the clinic while directly benefiting residents. A crucial foundation for success is formal and consistent mentorship. Pairing residents with mentors enhances the overall program and readiness of the residents. By offering a strong ambulatory nursing residency, institutions can attract nurses who are interested in various tracks within ambulatory settings including cardiovascular, neurology or oncology. A key component of a successful program is to identify a mentor and enhanced didactic lectures. An academic institution added ambulatory residency program to the existing nursing residency. The project shared literature focused on the components of residency related to logistical aspects of ambulatory rotation. The program was developed collaboratively by a team of ambulatory and oncology leaders, ambulatory educators, and with the use of oncology staff expertise. Two graduate nurses were accepted to the inaugural residency program in 2021. This project specifically focuses on mentorship utilization in the oncology field at the outpatient setting. Residents participated in clinical rotations within radiation oncology, medical oncology clinics, infusion clinics and regional clinics. To ensure availability of

preceptors, the initial phase started with one resident within medical oncology and one within the infusion area. Port access, lab work, and injections were included during infusion rotation. The didactic lectures of the oncology program were developed by the mentor and focused on scientific basis of cancer, clinical trials, oncologic emergencies, and oncology psychosocial factors while also discussing safe administration of chemotherapy. The content of each pillar was adopted from Oncology Nursing Society (ONS) Chemotherapy/Immunotherapy. Residents registered for ONS Fundamentals of Chemotherapy/Immunotherapy Administration. The oncology mentor conducted meetings twice weekly for 30 minutes for six months. One of the residents departed the program near the latter end. To improve the program, the mentor met with the resident and preceptors at the one-year mark to receive feedback on didactic lectures. Recommendations included starting the initial phase at the Fast Track area and improving clinic rotations. Robust and well-thought-out residency programs provide smoother and enhanced transitions for graduate nurses. The fundamental pillar of the program is didactic lectures and mentorship. Creating and improving residency programs within ambulatory settings to formally include mentorship is a new approach to attract graduate nurses leading to proficient nurses simultaneously supporting the clinic.

## **P213**

### **CREATING A PIPELINE: DEVELOPING A GATEWAY TO AMBULATORY ONCOLOGY TRANSITION TO PRACTICE PROGRAM**

**Lindsey Zinck, MSN, RN, OCN®, NEA-BC, University of Pennsylvania Health System, Philadelphia, PA; Caitlin M. O'Neill, MSN, RN, OCN®, NEA-BC, Hospital of the University of Pennsylvania, Philadelphia, PA; Christine Usher, MSN, RN, OCN®, Penn Medicine, Philadelphia, PA**

#### **Oncology Nursing Practice**

Care delivery continues to migrate to the ambulatory oncology setting, while increasing in both volume and complexity. With this has come a need for increased nursing support, but the current nursing workforce shortage has created increasing challenges in meeting the growing demand for oncology nurses in ambulatory. Furthermore, most BSN programs nationally provide minimal education in oncology care, and there is limited exposure to the ambulatory setting in these programs. This is problematic as the overwhelming majority of cancer care is already provided in ambulatory, yet this continues to be a less commonly sought after practice specialty for new graduate RNs. As such,

a team of leaders from the Cancer Center and Infusion Departments at a large academic medical center in Philadelphia collaborated to create the “Gateway to Ambulatory Oncology Nursing” transition to practice program. This program exists to provide a two-year immersion into the world of ambulatory nursing for recent BSN graduates desiring to work directly in the field of oncology clinic nursing, in order to meet the growing demand for more nurses in this specialty area. Nursing leadership designed a robust candidate identification process, inclusive of specialized recruitment strategies, behavioral interviewing, and department shadow experience, resulting in the ultimate selection of six new graduate RNs with a passion for beginning their careers directly in oncology clinic nursing. A specialized orientation and training program was created, along with the opportunity for care continuum shadow experiences outside of the department, as well as didactic cancer lectures from multi-disciplinary care team members, supplemented by the Oncology Nursing Society Oncology Nursing Orientation courses. All six RNs successfully completed orientation within three months of hire. Program retention at one year was 100%, and program retention will be re-measured at two year’s post-implementation, as this metric is widely regarded as the strongest indicator of success for transition to practice programs. Improvements in patient flow, patient satisfaction, provider efficiency, and care team satisfaction will also be measured during the 2nd year of the program. This program employed six new graduate RNs for a direct immersion into ambulatory oncology clinic nursing to help meet the growing demand for skilled nurses in this specialty area. Furthermore, this program helps address important needs currently lacking in most BSN programs through increased exposure, along with direct placement opportunities, in both oncology and ambulatory care.

## **P214**

### **REDESIGNING THE AMBULATORY ONCOLOGY SUPPORT TEAM**

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#### **Oncology Nursing Practice**

The current supportive care team shortages have led to immeasurable negative impacts on the healthcare workforce, compounded by the existing workforce instability generated by the COVID-19 pandemic. To

address increasing volume and complexity of patients coming to the ambulatory setting for oncology care amidst the current workforce challenges, it became imperative to re-design the roles and workflows for the ambulatory oncology support team. The Cancer Service Line (CSL) operations leadership team worked with Hospital, Ambulatory, and Laboratory leadership addressing workforce challenges to improve patient flow and satisfaction. The goals of this project were to improve integration, clinical oversight, and care coordination through a phased two-part initiative: 1) Transition Phlebotomists” working in the Cancer Center to align under CSL leadership, and 2) Increase resources and efficiency within Clinic and Lab by cross-training CSL Clinic CSAs and Lab Phlebotomy staff, creating a “one-stop shop” concept, where patients have pre-visit labs and vital signs captured in one location by one staff member. This project aims to improve both patient and provider experience through reduced delays, improved patient flow, and enhanced efficiency. CSL clinical support team expanded to include more role diversity to address the growing numbers of oncology patients amidst the current workforce shortages. Nurse Leaders assembled teams of Registered Nurses, Certified Medical Assistants, Certified Nursing Assistants, Phlebotomists, Licensed Practical Nurses, and Clinical Coordinators. All members of the clinical support team underwent extensive training to cross functional skillsets within the appropriate scope of practice. The cross-functional team received comprehensive didactic training, hands-on training, and competency validation. A new Cancer Center Intake workflow was created to improve patient flow and clinic efficiency. Patients now have their vital signs, intake questionnaires, and phlebotomy services in one location by one staff member, creating a “one-stop shop” for our patient’s pre-visit intake needs. The care team redesign and new Intake workflow are being evaluated through the following metrics: patient satisfaction, improved patient flow, provider satisfaction with intake efficiency, increased “economies of scale” through better staffing coverage models, and staff satisfaction and retention through advancement and utilization of new skills. Early results indicate that the care team re-design and Intake workflow has consolidated pre-visit patient stops, streamlined patient flow, and increased efficiency. This low cost, high reward initiative may offer value in supporting oncology care team members through current and future workforce challenges.

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### **QUALITY IMPROVEMENT**

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## **P215** **IMPROVING VEIN ASSESSMENT TOOL** **UTILIZATION**

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### **Oncology Nursing Practice**

Oncology Nursing Society and Infusion Nursing Society standards recommend performing a comprehensive assessment before initiating treatment to determine appropriate venous access, based on therapy characteristics and patient-specific risk factors for infiltration and extravasation, with a focus on preserving venous health. Approximately 76% of cancer patients require central venous access to receive intravenous treatment safely and efficaciously. An NCI-designated comprehensive cancer center in the Northeast designed and implemented an adult oncology venous assessment tool (VAT) to guide nursing recommendations for CVAD placement. The outcome goal was to achieve and maintain VAT completion prior to therapy initiation in 100% of patients. Currently, initial analysis shows a VAT completion rate of less than 50%. In response, a nurse-driven process improvement (PI) team was created to identify drivers of this low VAT completion rate and design and implement interventions with the aim of increasing this rate by 10% in 3 months. Focusing on their laboratory services department, where the majority of patients undergo blood specimen collection and venous access intervention, the nurse PI team used an observational survey tool to assess and diagnose VAT completion barriers. Survey outcomes identified the following barriers: 1) lack of process awareness, 2) varying levels of Epic proficiency, and 3) differences in perceived role responsibility for completing the VAT. A three-pronged intervention was launched to increase VAT completion rates consisting of 1) designing new workflows, 2) creating process training documents, and 3) implementing workflow training. The intervention implementation cycle is planned for three months, during which monthly VAT completion rates will be measured, reported to staff, and trended. Upon completion of this three-month cycle, the VAT completion rate outcome measure will guide the team's next level of intervention. Consistently performing an oncology-focused venous assessment prior to treatment will mitigate infiltration and extravasation risks, as well as

treatment delays secondary to failed venous access, while enhancing patients' overall quality of life.

## **P216** **PROTOCOL PREVENTING DEVICE RELATED** **PRESSURE INJURIES FROM INTRAVENOUS** **LUMENS IN AN OUTPATIENT SETTING**

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### **Patient Education and Safety**

Medical-device related pressure injuries (MDRPIs) account for more than 30% of all preventable hospital acquired pressure injuries. The purpose of this project is to create a protocol for all IV lines when discharged from the Outpatient Infusion Center (OPIC) preventing MDRPIs. Consistent use of Curoc caps have shown to decrease central line blood stream infections (CLABSIs) but could they create a risk for an avoidable pressure injury? This project of interest measured MDRPIs related to Curoc caps on IV lumens, adherence to a protocol, and CLABSIs. The proposed outcomes of this project were to initiate an intervention through a protocol preventing MDRPIs from IVs and CLABSIs. The protocol requires wrapping the lumens with a 4x4 gauze and taping the lumens upwards then providing a stretch sleeve for patients who receive infusions in OPIC with an IV access in place overnight. Skin assessments around IV lines were performed with each infusion along with a Braden scale score to identify the at-risk population. Fifteen patients received infusions from January 2020-April 2020; two patients refused the intervention and 78 interventions per protocol were performed. Results from this project provided a simple cost-effective way preventing CLABSIs and MDRPIs from IV lumens and Curoc caps. The protocol promoted positive patient outcomes and empowerment adding value to the success of the project. The protocol could be utilized in the inpatient setting to initiate an intervention to prevent and bring awareness to MDRPIs from IV lines.

## **P217** **DISCHARGE NEEDS ADDRESSED EARLIER** **AND DISCHARGE CHECKLIST IMPLEMENTED** **ON INPATIENT MEDICAL ONCOLOGY UNIT**

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### **Coordination of Care**



Medical oncology patients have complicated home and outpatient needs after hospitalization. They often require extensive post-discharge arrangements and enhanced discharge education. This contributes to delayed discharges with only 30% of patients leaving the hospital before 2 pm. Afternoon discharges delay new admissions because of bed availability and can set back the initiation of inpatient chemotherapy and treatment. This can ultimately extend the length of admission and create a costly cycle for the unit and frustration for patients, providers, and nursing staff. The goal of this project was multifactorial: to prepare hospitalized patients for discharge earlier in their hospital stay and improve their confidence in leaving the hospital; to educate patients about the discharge process so they could arrange transport and avoid frustration with additional delays; to facilitate discharges before 2pm allowing time sensitive chemotherapy admissions to start treatment sooner; and to include bedside nurses in the discharge process and discharge teaching throughout the patient's admission. Between January-March 2022, bedside nurses were educated on a new unit standard for preparing patients for discharge. Nursing staff were instructed to ask each of their patients on each shift what discharge concerns they had and document these concerns as well as any education provided and how the concern was being addressed in a newly created portion of the patient care plan in the electronic medical record. Daily audits were done to ensure nurses were implementing this practice and tracking how often the discharge question got asked. A laminated Discharge Checklist was also posted in each patient room listing the essential discharge steps that needed to be completed prior to discharge that the bedside or discharge nurses could check off with a dry erase marker. Staff and patient surveys were distributed after the implementation of this project that showed improved satisfaction in discharge process for both groups. A comparison analysis of reported delays in discharge revealed that 46% of discharges occurred before 2 pm in March 2022 compared to 36% in March 2021, an improvement of 10%. This discharge improvement project was successful and beneficial to the unit as evidenced by improved staff and patient satisfaction and earlier discharge times. This project will have long term positive effects on the discharge process if nurses continue to use the discharge tools that were developed.

## **P218**

### **REDUCING DISCHARGE DELAYS THROUGH CREATION OF DISCHARGE ORDER QUICK REFERENCE GUIDE FOR PROVIDERS**

**Rachael Alexander, RN, BSN, OCN®, Huntsman Cancer Hospital, Salt Lake City, UT; Katelyn Barton, RN, BSN, University of Utah Hospital, Salt Lake City, UT; Jennifer Jones, BSN, RN, OCN®, Huntsman Cancer Hospital, Salt Lake City, UT; Melissa Wright, BSN, RN, OCN®, Huntsman Cancer Hospital, Salt Lake City, UT**

#### **Coordination of Care**

Our cancer hospital's medical oncology patient population frequently has complicated home and outpatient needs. As a teaching hospital, new residents and interns rotate through the unit and are not as familiar with writing complex oncology discharge orders. They are often rushed when writing discharge orders due to patient care and other acute inpatient responsibilities often leading to incomplete and inaccurate discharge orders. The case manager and unit discharge nurse review orders and ask the interns and residents to correct them creating further delays in discharge. Based on collected data, 30% of our unit's patients are discharged before 2 pm. These delays impact the ability to admit new patients in an ideal time-frame, especially scheduled chemotherapy patients which has the potential to extend their admission due to late chemo start times, thus creating a costly cycle for the unit and frustration for patients, providers, and nursing staff. Our goal was to improve the accuracy of discharge orders through provider education to decrease need for corrections, thereby reducing delays in discharge and to facilitate earlier discharge times by improving the timeframe in which discharge orders were written. Over a three month period from January-March 2022, a qualitative study was completed surveying unit discharge nurses and case managers about the frequency of having appropriate discharge orders and how often they needed to ask the provider for corrections. After this data and input from case managers and established oncology providers, we created an oncology specific discharge order quick reference guide and disseminated it to providers electronically and through smaller laminated copies they can use as a "pocket guide." A comparison analysis of discharge times for the medical oncology unit revealed that 46% of discharges occurred before 2 pm in March 2022 as compared to 36% in March 2021, an improvement of 10%. A comparison analysis of perceived discharge delays showed in March 2021 that 33 out of 121 (27%) of patients discharged had no reported delays (27%), whereas in March of 2022, 41 out of 128 (32%) patients reported no discharge delays which is an improvement of 5%. Creating a discharge order reference guide showed improvement on our unit of earlier discharge times, reduction in discharge delays, and was well-received by providers as surveys

indicated their receptiveness and usefulness in their practice.

## **P219**

### **IMPLEMENT BREAST, CERVICAL CANCER, HPV CLINICAL PREVENTION FOR WOMEN OF AFRICAN DESCENT**

**Angela Adjetey Appiah, PhD, DNP, MPH, RN, COA, FAACM, Pace, Tappan, NY**

#### **Screening, Early Detection, and Genetic Risk**

The clinical practice gap identified in women of African descent was the lack of education and awareness of breast and cervical cancer and HPV primary and secondary prevention. The aim and objective are to improve population screening and early detection activities. The goal was to increase knowledge of HPV, breast, and cervical cancer. The Conceptual model: Health Promotion Model (HPM) and Plan-Do-Study-Act (PDSA) were used to guide the project. This project used a convenience sample of 30 participants. The AWACAN tool assessed awareness of breast, cervical cancer, and HPV. The Susan Komen toolkit for African Americans was used to guide education, and follow-up interventions such as reminder phone calls were used to close the loop in prevention activities. The limitation includes using one church and an eight to ten weeks timeframe. The delimitation was focused on women of African descent. The assumptions are that there would be an increase in prevention activities post-education, and the AWACAN tool would increase awareness and benefit in implementing interventions. The community health needs assessment outcome identified by the organization, stakeholders, and nursing impact on clinical cancer prevention were met. The purpose of the quality improvement (QI) project was to close the gap between breast, cervical cancer, and HPV among women of African descent through the initiation of clinical prevention and population health management. The QI will enhance awareness, education, screening, health promotion, prevention, and knowledge, using an EBP intervention toolkit. The intervention includes education and follow-up with phone calls and reminders to follow through with screening and early detection activities such as mammography, HPV test, Pap smear/test, HPV DNA test, and HPV vaccine. Evaluation and innovation included a review of Needs Assessment to design the education program, Implement the Model for Improvement: Plan-Do-Study-Act (PDSA) Cycle, Conducting a pre and post-intervention survey for education, and for sustaining the program using the African Women Awareness of CANcer (AWACAN) tool for measuring awareness of breast and cervical cancer

questionnaire, use the resources and toolkit to perform education and awareness on breast, cervical cancer, and HPV prevention for the community identified from the needs assessment. Education was conducted virtually. Discussion-Cancer prevention in nursing allows for education, strategies that improve clinical prevention, and population health. Nurses must provide evidence-based screening updates and follow-up recommendations that are culturally humble and congruent.

## **P220**

### **IMPLEMENTATION OF PRACTICE GUIDELINES DURING USE OF CARDIOTOXIC TREATMENT**

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#### **Coordination of Care**

The completion of cardiovascular diagnostic evaluation to measure cardiac toxicity is essential to ensure the safe delivery of medications that are cardiotoxic. A missing or delayed cardiovascular screening or echocardiograms at baseline and ongoing for patient receiving chemotherapy or immunotherapy in the infusion clinic can have a significant consequence for patient outcomes. The risk to patient safety by either delaying treatment or administering a drug without knowing the cardiovascular health of the patient is one that needs to be addressed to ensure consistent adherence to evidence based guidelines. The purpose of a quality improvement initiative to address variation in practice and ordering styles for baseline cardiovascular evaluation was aimed at developing a consistent and hardwired processes. Once contributing factors were identified and process map developed, a new workflow was designed and implemented. The aim of the project was to increase monthly compliance of cardiovascular baseline testing for pre-treatment assessment of patients receiving cardiotoxic chemotherapy or immunotherapy to 95% during the defined time period. At completion of the project, the goal was met and it was determined that the workflow was in control. Since the new workflow was sustained, the new scheduling tool will be permanently adopted. Ongoing monitoring and a monthly compliance rate will continue to occur with regular reporting.

## **P221**

### **TACKLING CLABSI (CENTRAL LINE BLOOD STREAM INFECTIONS) THROUGH**

## WEEKLY CENTRAL LINE DEVICE ROUNDS AND HUDDLE MESSAGES: A TEAM FOCUSED APPROACH

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### Patient Education and Safety

CLABSI are potentially a source of serious patient morbidity and mortality (Zeigler et al., 2015). Studies estimate that there are upwards of 250,000 CLABSI events in the United States per year, with approximately 25,000 preventable deaths due to these events (Bell, T. & O'Grady, N., 2017). In addition to the impact on patient harm, CLABSI have financial repercussions. CLABSI are associated with the highest cost-burden of all hospital-acquired infections, accounting for approximately \$46,000 per CLABSI incidence (Haddadin et al., 2022). On 10 West, the Bone Marrow Transplant Unit the SIR (Standardized Infection Rate) was 1.02 from July 2021 to December 2021, making this a target unit for improvement in 2022. Our goal was to achieve and maintain a CLABSI SIR <0.99 from Q1 to Q3 2022 on the Bone Marrow Transplant Unit. Nursing leadership and Infection Prevention and Control (IP&C) Specialist conducted nurse leader device rounds per week to identify practice, areas of opportunity, and trends related to central line care. The focus of the intervention was to identify gaps in best practice and provide real time feedback to nursing staff. To ensure all patient's central lines were captured during rounding the Patient Care Director, Clinical Nurse Manager, and IP&C would visit the patients at various points weekly and audit their central line. As a team, we examined their central line dressing, their IV lines, and providing education on CHG (Chlorohexidine) Wipes. Any areas of opportunity were addressed in real time to nursing team and huddle messages were created based on trends. All 10 West patient's central lines were observed by nursing leadership and IP&C on a weekly basis. After the implementation of weekly device rounds and real time feedback 10 West had a decrease in CLABSI incidents from 10 incidents in 2021 to 4 incidents in 2022 YTD. As a result the unit's SIR drastically decreased below 0.99, meeting the hospitals Quality Patient Safety (QPS) goal for 2022. Continued mentorship, peer-to-peer feedback, auditing, and education will ensure that we continue to maintain our CLABSI SIR on 10 West, with our objective to maintain a zero harm culture. Upon successfully meeting the

CLABSI SIR on 10 West, the Bone Marrow Transplant Unit, further leadership rounding will be conducted to ensure best practice continues and a zero harm culture is maintained.

## P222 UTILIZATION OF DOCUMENTATION TEMPLATES TO GUIDE APPROPRIATE PRACTICE

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### Patient Education and Safety

Anti-neoplastic agent spills are a known risk in the oncology setting despite the safeguards of personal protective equipment and closed system transfer devices. Spills result in the contamination of the environment and can be a source of exposure to healthcare workers. It is important to have training, education, and procedures in place regarding spill management. Nursing teams across the health system are trained on chemotherapy spill management and have access to the electronic copy of the procedural document in our enterprise-wide policy repository. Spills seldom occur and education specialist noted an opportunity for improvement in the post spill documentation. The purpose of this quality improvement was to create a chemotherapy spill template that would guide the nurse through all appropriate pieces of documentation. This would allow for complete documentation that includes all appropriate elements required in our standard operating procedure. A small team, including educators and EMR specialists met to draft the template. Contents of the template included location, size of spill, and disposition of waste. Additionally, the template incorporated the management of potential patient exposure. Details include documentation of exposure area of patients, appropriate notification of provider, pharmacy, supervisor and environmental services. Final documentation includes documentation of post clean up interventions such as continuation of treatment, stopping treatment or compounding of a new infusion bag by pharmacy. The template was implemented and education occurred across the health system with presentation of the template at meetings, creation of a job aid for caregivers, and posting of educational resource to an intranet based tool. Due to the nature of the template build, future reports can be created to determine the number of documented templates utilized on a

monthly basis. Data can be analyzed to conclude whether there are additional educational needs for nursing teams.

## P223

### TARGETING UNSIGNED ORDERS TO REDUCE TREATMENT DELAYS FOR ONCOLOGY INFUSION THERAPY

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#### Coordination of Care

Timely patient care is crucial for oncology patients. Infusion therapy is delayed due to a variety of non-clinical intake issues: unsigned orders; prior authorization delays; missing/deficient consents; plans on hold or dated incorrectly. A Pareto analysis of intake issues at The University of Kansas Cancer Center (KUCC) infusion centers was created and found that unsigned orders contributed to 60% of delayed treatments, more than double any other issue. Unsigned orders became the focus of our efforts to reduce patient delays. Orders for therapy are unsigned for a variety of reasons. Our analysis revealed factors to be considered when making interventions, including multiple communication platforms, an outdated intake coordinator (IC) workflow, and knowledge deficits. An A3 was created following our lean problem-solving methodology and interventions were designed targeting these factors. The IC workflow was retooled with one of their primary tasks to remind care teams to sign any unsigned orders. Interventions occurring at the 72-, 48-, and 24-hour mark were designed to prompt the clinical team that orders remained unsigned and can lead to treatment delays. An escalation algorithm was designed to quickly resolve unsigned orders on the day of treatment. We developed a two-part educational campaign for all physicians and care teams. Education was provided regarding the impact of unsigned orders, as well as the new process to alert them that orders are unsigned. There were direct interventions at the team level to help the teams with the most unsigned orders to adjust their workflows and improve performance. These interventions were done on a peer-to-peer basis and the solutions were tailored for each team. Over a three-month period, the average

weekly count of unsigned orders dropped from 35 to 17. This improvement in the process metric (unsigned orders) was correlated with a reduction in the outcome metric (treatment delays). Our weekly average wait was reduced from 92 minutes to 22 minutes (a 76% reduction), while the average daily wait dropped 95%, from 22 minutes to 1 minute. The correlation supports that a reduction in unsigned orders led to a reduction in treatment delays. In summary, we utilized conventional Lean problem-solving tools with an A3 to reduce patient wait times for infusion therapy by reducing the number of unsigned orders and the time for resolution.

## P224

### NURSES TAKE ON LANGUAGE ACCESS

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#### Oncology Nursing Practice

Understanding the disease processes, treatments, and special needs of surgical oncology patients with communication barriers is a critical component of safe care. To ensure accurate symptom assessment and recognition of existing morbidities, nursing education and training on the effective use of professional interpreters and current communication technology is fundamental to advancing safe practice and health equity. To ensure equitable care through language and communication assistance for patients at a large cancer center, a group of perianesthesia nurses formed a joint task force with Language Assistance professionals to improve communication with Limited English Proficient (LEP), nonverbal, hearing, speech and visually impaired patients. A systematic nursing education program was designed to highlight the importance of medical interpreters and current communication technology in nursing practice. In-services featured resources that included: iPads embedded with two video interpreter applications, two audio interpretation vendors loaded onto smart phones and wearable communication devices, amplifiers, magnifiers, point-to-talk and white boards, and clear masks for patients that utilized lip-reading. Following staff education and training, compliance with the use of communication resources dramatically improved. For example, interpreter calls increased from 2 (20 minutes) in 4/2018, to 23 audio calls (305 minutes) and 29 video calls (648 minutes) in 1/2019. Due to the efficacy of the initiative, all Pre-Surgical Centers in the hospital were allocated video American Sign Language, Language Assistance Resource boxes, clear masks for lip reading, and a video interpreter cart. Providing staff with current language and communication technology while educating them

on proper usage promotes nursing advocacy for patients with barriers to communication, encourages accurate assessments, and fosters health equity. Training nurses on the use of professional medical interpreters and communication technology can improve symptom identification and reduce the cost of a missed clinical finding. The introduction of technology to facilitate communication supported and advanced health equity and care for surgical oncology patients at a large cancer center. Educating nurses on the use of new language assistance equipment and best practices in working with medical interpreters led to increased interpreter usage. Nurses adopted and supported the innovations, thereby shifting unit culture to facilitate better health outcomes and experiences for patients with language barriers.

## **P225**

### **TIME IS MONEY: NAVIGATION VALIDATION WITH A NEW PRODUCTIVITY SCALE**

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*Oncology Nursing Practice*

Oncology Nurse Navigators (ONN) play a pivotal role in cancer patients' journeys, from diagnosis throughout the continuum. The ONN work is individualized, tailored to meet patients' needs, but difficult to quantify. Being able to measure the ONN productivity is imperative. It is necessary to establish standards in the ONN arena, which requires data and outcome tracking for key stakeholders to effectively measure workloads and ensure adequate ONN staffing for a robust program. The purpose was to design, develop, and utilize the data obtained from the Oncology Nurse Navigator Productivity Scale (ONNPS) to assess, plan, implement and evaluate the current and future needs of a new oncology nurse navigator program. Electronic Medical Record documentation was created and utilized to track ONN number of and time per patient care encounter through discrete reportable fields. The sum of this time is measured daily then averaged to a weekly value that represents a Patient Care Productivity Value. This is combined with an average non-patient care time (data collection/analysis, meetings, etc.) for the ONN Total Productivity Value (TPV). The ONNPS allows for weekly, monthly, and quarterly productivity measures for each ONN and can break down patient-facing time, non-patient care time, and total productivity. After one month of program initiation, the ONNPS tool showcased the ONN (n=2) average TPV of 2.56 hours/day/navigator. Six months after program initiation, the average TPV doubled to 5.1 hours/day/navigator. An addi-

tional full-time ONN was approved and hired, resulting in three ONN: two thoracic and one GI. The Thoracic ONN TPV maintained a 4.15 hours/day/navigator over the following 14 months, thus allowing an ONN to start building GU Navigation, growing the program without additional staff requirements. The GI ONN (n=1) had a 20% increase in TPV from February 2021 (4.86 hours/day) to January 2022 (5.89 hours/day). An additional ONN was justified to support the GI ONN and build Head and Neck Navigation. The ONNPS tool quantifies ONN efforts in a way that, when measured over time, creates an assessment of ONN workloads and overall efficiency. In turn, data obtained can be utilized as a guide for coaching staff and program growth, especially during a national nursing shortage where resources are limited. The ONNPS tool will be fine-tuned and paired with patient acuity data to continue program and navigator growth.

## **P226**

### **WHAT'S YOUR TAKE? PROVIDER FEEDBACK ON NURSE NAVIGATION**

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*Oncology Nursing Practice*

Oncology Nurse Navigators (ONN) must demonstrate their value to the cancer patient and the hospital system. Building a robust Oncology Patient Navigation Program (OPNP) must include buy-in from key stakeholders, especially treating physicians, as their support is critical in getting referrals timely. When providers understand that navigators offer an increased level of support and resources to their patients, the value of the OPNP is discernible. The purpose was to gain provider knowledge and understanding of the OPNP to target areas for improvement and program growth. An electronic Microsoft Forms survey was emailed to all providers (MDs, APRNs, PAs) in the following areas: Medical, Radiation, and Surgical Oncology, Thoracic Surgery, Pulmonology, Ear/Nose/Throat, and GI Surgery. A Likert Scale assessed the respondents' level of understanding of the role of the ONN; the level of perceived inclusion in decision-making about the OPNP; knowledge of how to refer, identify appropriate patients, and identify their navigator; provider perceptions of patient feedback; and the impact on clinical outcomes. The survey was sent to 65 providers with a response rate of 49.2%, (n=32). The data revealed the ONN are positively impacting both patients and the cancer care team as evidenced by these responses: 78% feel the ONN has a positive impact on patient experience, 72% feel they have a positive impact on clinical



outcomes, 85% were likely to refer their patients to the program, and 88% knew how to do this. The survey demonstrated the following areas of opportunity: 59% felt the ONN role was clearly defined, 53% felt included in decisions made about the program, and 66% knew how to determine if an ONN was following their patient. With a response rate close to 50%, it is clear that many providers are invested in ensuring the program supports patients in a comprehensive way. This survey also demonstrated the need to ensure the ONN role is clearly defined and that providers are aware of the impact on patients. To gain additional feedback, a patient survey is being created to obtain qualitative data regarding patient experience, and additional utilization of navigation metrics will show the impact ONN have on clinical outcomes to build on these results. Lastly, provider education will be standardized, including new provider orientation to the ONN role and program and regular navigation updates to providers.

## **P227 IMPLEMENTATION OF PERFORMANCE SCORE BEST PRACTICE ADVISORY FOR CELLULAR THERAPY PATIENTS TO IMPROVE DOCUMENTATION COMPLIANCE**

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### **Oncology Nursing Practice**

Smilow Cancer Hospital's cellular therapy program is currently the only Foundation for the Accreditation of Cellular Therapy (FACT) accredited program in Connecticut. FACT establishes standards for high quality medical and laboratory practice in cellular therapies including stem cell transplants and CAR-T infusions. Programs are required to collect and submit patient data to the international research database called the Center for International Blood and Marrow Transplant Research (CIBMTR). Data includes reporting patients' Karnofsky or Lansky Performance Scores (PS). Based on program audits, we identified the need to improve clinicians' documentation compliance for reporting PS. The purpose was to improve clinicians' documentation compliance of cellular therapy patients' performance scores to maintain FACT reporting requirements. A committee including the Program Director, Manager,

Quality Manager, an Advance Practice Provider (APP), and EPIC analysts met to explore building a unique interactive Best Practice Advisory (BPA) to only fire when required. Documentation fields were reviewed to identify a BPA location. We chose the encounter diagnosis field as the best location for the BPA, as it is a required field to complete when closing encounters. The BPA was strategically built to calculate the patients' transplant or infusion date from the documentation field for day zero. The BPA appears if a PS has not been documented for the required time periods; within 30 days prior to patient starting conditioning regimen, post-transplant/infusion 100 days, six months, and one year. Each time period was built with an acceptable time range to allow for flexibility. For adult units, Karnofsky and Lansky PS flowsheets will automatically display to allow clinicians to document the applicable PS based on the patients' age. Compliance was audited monthly for three months using EPIC reports with an average compliance rate of 98%. This was a 19% compliance rate improvement. Findings were reported at monthly quality improvement meetings with appropriate follow-up. Compliance will continue to be audited bi-annually. The addition of the BPA will assist in increasing documentation compliance. The EPIC reports and audits assist in assessing compliance and effectiveness. FACT accredited programs must identify trends, implement improvements, and evaluate the effectiveness. This process improvement will help meet these requirements. The solution of enhancing documentation with a strategic BPA in the existing electronic medical record system is an innovative way to improve compliance.

## **P228 IMPLEMENTATION OF A STANDARDIZED ANTINEOPLASTIC TELEHEALTH EDUCATION WORKFLOW - QUALITY IMPROVEMENT INITIATIVE**

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### **Patient Education and Safety**

ASCO-ONS 2016 guidelines specify the necessity of patient antineoplastic education with documentation

prior to antineoplastic administration. Advanced Practice Providers (APPs) are key to delivery of effective pre-antineoplastic education. The Covid-19 pandemic has impacted the APPs shared visit model approach to provide pre-antineoplastic education due to staffing shortages and patient access barriers. Use of telehealth, and adoption of the individual visit APPs practice model, are alternative strategies for APPs to continue delivery of guideline-based antineoplastic education despite these limitations. The purpose of this project was to 1) evaluate the implementation of a standardized antineoplastic telehealth education workflow that went into effect 6/2020; 2) record the number of completed Nurse Practitioner (NP) antineoplastic telehealth visits according to the individual visit APPs practice model; 3) and evaluate documentation adherence to ASCO-ONS 2016 guidelines for these visits. We used the Plan-Do-Study-Act (PDSA) methodology to develop a standardized workflow for antineoplastic education telehealth visits in an academic breast oncology clinic from 4/2020- 5/2020. The workflow consists of a standardized note template in the electronic health record (EHR) and standardized patient education handouts. New telehealth pre-antineoplastic education encounters were identified in the EHR from 6/2020- 8/2022. NP documentation in the EHR was evaluated retrospectively, adherence to ASCO-ONS guidelines was evaluated (yes/no) for pre-antineoplastic telehealth video visits (VVs) and phone visits (PVs), according to the ASCO-ONS guideline criteria. The goal was 80% for each metric. From 4/2020-5/2020, during the PDSA cycles, 6 antineoplastic education telehealth visits were conducted by NPs and 2 (33.3%) had guideline adherent documentation. Root cause analysis revealed documentation nonadherence was due to NP unfamiliarity of the new EHR system and lack of knowledge of antineoplastic education documentation standards. From 6/2020- 8/2022, after implementation of the workflow, 266 NP antineoplastic education visits were completed, 204 (76.7%) were VVs, and 62 (23.3%) were PVs. Overall, 241 (90.6%) of total visits, 201 (98.5%) and 40 (64.5%) of VVs and PVs, respectively, met guideline-based documentation standards. After implementation of the standardized workflow, approximately 10 NP antineoplastic telehealth visits per-month were completed. Over 90% of visits had guideline adherent, however, documentation standards were only met in about a third of PVs. The APP individual visit model was a successful strategy to provide pre-antineoplastic education. Further PDSA cycles are needed to improve documentation quality for telehealth PVs.

## P229

### IMPLEMENTING DEDICATED HAZARDOUS DRUG STORAGE ACROSS THE INPATIENT ONCOLOGY AREAS

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#### Oncology Nursing Practice

USP <800> outlines protections for healthcare workers who prepare, administer, transport, or handle hazardous drugs (HD) to minimize exposure risk. A bedside nurse/MSN student working on an inpatient oncology unit at a multi-facility academic medical center performed a gap analysis, which revealed the inpatient medication rooms did not fully meet USP <800> standards for HD storage. This presented an area of opportunity to be in alignment with regulatory standards and institutional values to support nursing and environmental safety. The purpose of this quality improvement project was to standardize dedicated HD storage across the inpatient oncology medication rooms to meet the quality and practice standards of USP <800> and Occupational Safety and Health Administration (OSHA). Donabedian's structure-process-outcome model was used to guide implementation. Collaboration between safety officers, nursing leadership, and pharmacy revealed that the current bin being utilized was indicated for HD transport, not storage. These lidded bins were unlabeled and not conducive to the medication room space or nursing workflow. To mitigate this problem dedicated HD delivery area bins were procured. These bins allow pharmacy to deliver HDs to a consistent location in the medication room, while also separating HDs from non-HDs to prevent cross contamination. The new bins are clearly labeled, and color coded to meet the institutional requirements for HD storage. These clearly labeled bins fit appropriately in the Pyxis tower and medication fridge, which helps nursing easily identify delivered medications as HDs to prevent accidental exposure. Each bin costs approximately \$60. For implementation on the three inpatient oncology units, total cost is projected to be \$180, indicating this is a relatively inexpensive intervention. Additionally, bins were easily procured from pharmacy. Ongoing evaluation will include compliance of appropriate HD separation by direct observation, compliance of bin decontamination, and a staff satisfaction survey to evaluate impact to nursing workflow and safety. Implementation of a dedicated HD storage bin across the oncology areas is an exemplar of how bedside nurses can advocate for nursing safety by upholding regulatory standards and leading institutional change to minimize HD exposure risk.

## **P230**

### **ORAL CHEMOTHERAPY MONITOR AND TRACKING**

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#### **Patient Education and Safety**

Oral chemotherapy adherence is a well documented issue. Rates, as low as 50%, place oncology nurses in a unique position to provide and ensure their patients are educated about the importance of adhering to their prescription instruction and treatment protocols. Related to this, best practice for tracking patients receiving oral chemotherapy are also a big challenge. The purpose of developing a tracker is to have an effective tool to monitor oral chemotherapy dosing and compliance when initiating therapy, dose adjustments related to toxicities and adverse side effects. This tool will allow for a more comprehensive view for monitoring chemotherapy dosing, toxicities and/or dose adjustments in a quick view format. Moreover, if a patient reports symptoms or side effects after a dose adjustment, the information will be readily available to the care team. An oral chemotherapy monitoring and compliance tracker was developed through our electronic medical record to show a detailed synopsis of prescribed medication, initial dosing, start date, dose adjustments, toxicity assessment and lab results. Through a collaborative effort between nurse managers, physical lead, staff nurses, Informational services department, and nurse informaticists, we were able to develop an oral chemotherapy/medication monitoring section in our EMR. Education was given to our nursing staff and physicians via WedEx on the process and how to use the tool. A tip sheet was developed and given to staff for reference. The nurse is to complete the tracker after the initiation of oral chemotherapy, medication, one week after start, with any dose adjustments, or symptoms requiring dose adjustments. Dosing can be tracked easily for consistency and toxicity management and interventions. This tool was initiated July 26, 2022. A concurrent chart audit will be done July 2022 through December 2022 to monitor usage and compliance. All oral chemotherapy prescriptions are reviewed by our pharmacy department, regardless of where the medication is obtained. This process allows us to know what charts to audit for compliance. As oral chemotherapy treatments continue to increase, careful attention needs to be placed on monitoring compliance with initial therapy as well as having an accessible tool to

monitor for toxicity and dosing. Ultimately, oral oncotics offer patients more independence and flexibility during treatment. However, the practical option of oral chemotherapy doesn't have to come at the cost of safety or quality of care

## **P231**

### **IMPROVING PATIENT SAFETY THROUGH IMPLEMENTATION OF A FALL PREVENTION PROGRAM**

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#### **Patient Education and Safety**

Between 700,000 and 1,000,000 people fall in hospitals in the United States (AHRQ). The total cost related to falls was over \$50 billion in 2015 (Centers for Disease Control and Prevention). Disease, treatment, and treatment side effects (debilitation related to the disease, fatigue, etc.) predispose oncology patients to a greater risk of fall and / or injury. Approximately, one-third of falls can be prevented. In addition to identifying and managing a patient's underlying risk factors, evaluation of the patient environment can identify additional safety concerns. In February 2022, a major fall event (based on NDNQI definition) occurred on the medical oncology unit. Leadership and staff updated and implemented a prevention program to prevent future events. The purpose of this project was to prevent future fall with injury events, including no additional major events. During March 2022, a team was formed to update the existing unit fall prevention program and implement new tactics which included the following:

- Assignment of a fall prevention lesson
- Update Kardex to include history of falls
- Provide a written fall score on the patient white board (available in each room) along with education on fall prevention
- Implement daily safety huddle to identify patients at high risk for a fall
- Develop and implement a bed alarm algorithm and provide staff with an escalation guideline to address patient bed alarm refusal.

Two nursing staff audited nursing practice/documentation to determine that fall prevention measures were appropriate. Utilizing two staff members provided interrater quandary reliability to maintain consistency in the evaluation process. Metrics included tracking number of falls, fall with injury, and major falls. Post implementation, the unit experienced a period of 90 days without a fall. There have been no falls with injury

or major falls. Oncology nursing staff are empathetic to the patient wish to remain independent. To support patient independence while addressing fall risks led to a change in nursing discussions and education with oncology and facilitated success project implementation.

## **P232**

### **STANDARDIZING THE INDEPENDENT DOUBLE CHECK PROCESS TO REDUCE MEDICATION ERRORS ON AN INPATIENT ONCOLOGY UNIT**

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#### **Oncology Nursing Practice**

Oncology Nursing Society/Institute of Safe Medication Practices (ONS/ISMP) consider chemotherapy and other oncology agents as high-alert medications.<sup>1</sup> Despite safeguards, errors may occur during the drug delivery process, with ineffective communication being a leading cause of errors during nursing handover.<sup>2</sup> Independent verification and the double-check process are effective practices to minimize medication error.<sup>3</sup> A survey conducted on the hematology/oncology unit revealed a need to reinforce the double-check verification process, as 27.6% nurses surveyed (n=29) did not think that the concentration of the drug should be checked and 20.7% did not think that tubing should be traced from the medication bag to the patient. Two oncology nurse residents aimed to standardize the double-check process in an inpatient hematology/oncology unit to preserve patient safety and achieve zero patient harm. An educational intervention was developed and implemented. Utilizing video demonstration, the correct steps of a double-check verification process per institutional policy were reviewed. Nurses then completed a knowledge assessment after completion of the educational video. Additionally, audits were performed utilizing a standardized checklist from ISMP to verify that high alert medications were administered according to protocol. Knowledge assessment results from the educational intervention will be evaluated. 30 audits were performed between day and night shift. Two errors were identified, and both were associated with the use of continuous IV immunosuppressive medication (e.g. Mycophenolate and Tacrolimus). Historically, our institution has not considered continuous IV immunosuppressive medications as high-alert drugs. However, these medications have potential to

cause toxicity and often require frequent concentration changes. Based on our findings from the audits, immunosuppressive medication errors still occur. Unit leadership and pharmacy plan to include IV immunosuppressive drugs as a high-alert medication within the electronic medical record (EMR) and institutional policy. Additional EMR enhancements are being explored. Furthermore, the availability of a standardized video can help nurses clearly understand the components of the double-checking process. Oncology nurse residents can develop and lead evidence-based initiatives to improve patient safety and nursing practice.

## **P233**

### **OUR APPROACH TO STANDARDIZING TRANSPLANT AND CELLULAR THERAPY NURSE COORDINATOR VISIT SCHEDULING**

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#### **Oncology Nursing Practice**

Unlike other office practice roles, transplant and cellular therapy nurse coordinators carry a complex patient case load of those planned for transplant or cellular therapy infusions. There are standard coordinator visits throughout the treatment journey to ensure all logistics are effectively carried out mainly involving assessment, education, and high-level care coordination. These important visits have historically been scheduled by multiple administrative groups in Epic as a general “BMT–Nurse” visit combined with office practice nurse (OPN) and advanced practice provider (APP) visits. This had resulted in team confusion, unnecessary time spent on chart review, and inability to track caseload metrics. Given program growth and projected increased unique visits, there was a critical need to optimize patient scheduling. The purpose was to reduce nurse coordinator scheduling errors rates by <10% from August 2021 to June 2022. Using the plan-do-study-act quality improvement framework, the clinical program manager conducted a process, gap and resource analysis between three administrative and nursing groups and standardized visit provider and types for each nursing category (coordinator, OPN and APP), specifically distinguishing coordinators visits on the nursing schedule. Initial education was implemented to administrative and nursing teams with data evaluated monthly incorporating leadership check-ins, interim analysis of outcomes, and feedback from all entities. All stakeholders were provided the outcome at end of analysis. Scheduling error rates for coordinator visits decreased from 20% to 1% and sustained at <10% for five consecutive months. This quality improvement

project demonstrated substantial positive change in nurse coordinator visit scheduling practice which required a large-scale examination of several complicated individual processes. Secondary findings revealed team satisfaction and empowerment on better navigating their daily schedules. We were also able to standardize the coordinator schedule start and end time, visit duration and even gained approval to separate coordinator visits from the physician visits scheduled on the same day. Lastly, we were also able to create more accurate metric reports on coordinator visits retrospectively, and prospectively better able to forecast staffing needs. In our current climate, it is crucial to provide optimal structure for oncology nurses to deliver consistent and high quality care and for the team to feel heard and supported. The project findings should be taken into consideration in other transplant and cellular therapy centers needing guidance for nurse coordinator visit scheduling in Epic.

#### **P234** **FALLS PREVENTION: ACCOUNTABLE** **ENGAGEMENT AND IMPLEMENTATION**

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##### **Patient Education and Safety**

Oncology patients have an increased risk for falls with injury and was prioritized for analysis at our NCI-designated comprehensive cancer center. Disease and treatment associated symptoms including anemia, thrombocytopenia, peripheral neuropathy, muscle loss and bone fragility contribute to this high-risk profile. Fall rates are below the National Database of Nursing Quality Indicators-reportable falls benchmarks but inconsistency in practice, reporting and documentation of ambulatory falls occurrences and interventions exist. An examination of falls Patient Safety Net reporting demonstrated documentation variation and process gaps across clinical areas. Pandemic mandated limitations on visitor's accompaniment of patients altered education needs and documentation for falls prevention. Concurrently a new EMR system, Epic, was initiated necessitating analysis to evaluate all elements of the falls prevention program metrics. The purpose was to complete an evaluation of patient falls, compliance, and engagement with program policies to recommend possible new prevention strategies for an ambulatory cancer clinic. The Falls Committee co-chairs: a nurse

educator and a quality program manager assessed 2 years of PSNs related to patient falls. Policy adherence, situational details, patterns, and documentation of system engagement in response to incidence of falls were evaluated with consultation from the Rehabilitation Therapies manager, a physical therapist. A survey was created, sent to General Oncology Clinic Nurse Coordinators and Infusion Room nurses from May-July 2022 to assess the nursing staffs' understanding and implementation of the current falls prevention program. The Survey response rate was 44% (n=215) and highlighted several clear themes: downplaying prioritization of documentation; confusion on development of a plan for risk mitigation; inconsistent communication between departments; and varying assumptions of responsibility for plan development. Comments gathered beyond specific question responses revealed nurses' feelings of isolation in addressing falls prevention and noted a lack of providers' referrals to rehabilitation services for physical therapy due to concern for barrier to access. Survey results demonstrated a need for sustained staff engagement to assure policy driven, standard assessment with implementation of falls mitigation protocols. New algorithms to close the communication and documentation loop on prevention strategies between nursing, providers, and rehabilitation team are being considered. Workflow standards are being developed to assure policy compliance is evaluated and changes made as necessary from the metrics collected. Evidence supports falls risk can be modified with intentional program design and can greatly improve outcomes for oncology patients.

#### **P235** **THE ROLE OF THE GERIATRIC SURGICAL** **ONCOLOGY NURSE NAVIGATOR**

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##### **Coordination of Care**

The implementation of a geriatric surgical oncology nurse navigator program has the potential to significantly improve the quality of care and enhance the geriatric surgical patient's experience. This role focuses on patients aged 65 and above. The surgical oncology navigation program offers the patient and their family added support to navigate a complex treatment journey. Our purpose for implementation of a geriatric surgical oncology nurse navigation program is to overcome barriers regarding healthcare systems, expedite timely care, and improve quality access in all aspects of the surgical oncology journey. The structure of the program and role is based on Geriatric Surgical



Verification offered by the American College of Surgeons. Interventions of the surgical oncology nurse navigator start at the time of diagnosis and continue throughout their journey. It provides a hand to hold and improves the delivery of surgical and oncology interventions. Nurse Navigators can implement assessments and identify risks that may not routinely be discussed in clinical visits. This allows the nurse navigator to make referrals to nutrition, speech, geriatricians, physical therapy, psychiatry, and other healthcare services in real time. Since the inception of the program in April 2022, 66 geriatric assessments were completed and 21 interventions. The evaluation of a surgical patient allows the nurse navigator to perform standardized assessments such as: 1) delirium risk, 2) cognitive assessment, 3) difficulty swallowing, 4) depression screening, 5) patient-reported quality of life measurement, 6) malnutrition assessment, 7) palliative care screening, 8) impaired functional status, 9) impaired mobility, and 10) timed up and go (TUG) test. Performing assessments prior to surgery gives the surgical team a complete picture of the patient and highlights any risk factors. When a risk factor is identified, the surgical oncology nurse navigator engages with the family members and caregivers to coordinate pre- and post-surgical care. This coordination improves the post-surgical quality of care by improving recovery, decreasing length of hospital stays, re-admissions and referrals to skilled nursing facilities. As discussed, the geriatric surgical oncology nurse navigator role focuses on navigating the elderly population throughout all aspects of their surgical care. The improvement in quality can be measured by decreasing hospital stays, re-admissions which will in turn bring savings to our healthcare system.

## **P236** **PATIENTS' SATISFACTION WITH THE** **INFORMATION RECEIVED ON CANCER** **ILLNESS**

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**Patient Education and Safety**

The effective participation of the patient in the illness process is favored by the quality of the information provided by the educational action. Objectives: To assess the quality of information received from the perspective of cancer patients, identify the main domains that influence these perceptions and correlate them with sociodemographic and clinical characteris-

tics. Method: transversal, quantitative. The study was carried out in the outpatient clinic and in the inpatient unit of a general, private hospital, which has an Oncology Center, located in the city of São Paulo, São Paulo, Brazil. Data collection took place with 128 outpatients or inpatients. Instruments used: Sociodemographic and clinical characteristics and the European Organization for Research and Treatment of Cancer Core Quality of Life Questionnaire-Info 25 (EORTC QLQ-Info 25). Descriptive and analytical statistical analysis, with the Mann-Whitney and Kruskal-Wallis tests. Results: 60.90% were female, 81.3% married, 84.4% had completed higher education and the prevalence of socioeconomic classification was B1 and B2 (86%). Breast cancer (44%) was followed by colorectal cancer (41%) and the time elapsed since diagnosis was up to 12 months for 65.7% of respondents. In the analysis of the Info-25 instrument, the participants showed a satisfactory level of information received. However, with domains whose averages were lower than 70%: InfoThse (Information about other services); InfoD- ifp (Information about places of care), InfoHelp (Information about self-help); and, still, less than 50%, InfoWrin (Written information). In the correlation of sociodemographic and clinical data with the domains of the scale, patients with a time of diagnosis between 7-12 months were more satisfied in the InfoThse ("Information about other services") and Satinfo ("Satisfaction with the amount of information") domains. For the Overhelp domain ("Use of information"), people who declared themselves "household" opined that the information received during treatment was not sufficiently useful. People who declared themselves without religion were less satisfied, with a desire to receive more information. In the answers to the two open questions, the contents most cited as desiring more information were the risks of progression and relapse, survival and care at home. Some respondents attested to the unwillingness to obtain more information. Conclusion: In general, patients made a positive assessment of the quality of the information received, but showed that there is information that deserves greater attention from health professionals in the educational action.

## **P237** **COMING TOGETHER TO MEET THE** **CHALLENGE OF ORAL ADHERENCE:** **CHALLENGES AND OPPORTUNITIES**

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#### Coordination of Care

Oral therapy (OT) is an increasingly prevalent modality for oncology treatment. OT allows for a more patient-centric approach to oncology care by giving patients better access to and control of their treatments. OT, however, poses risks to patients and therefore must be monitored closely. Oncology nurses play an essential role in helping patients complete their OT safely and effectively. The benefits of OT include ease of administration, increased sense of self-care and control, improved access to care, prolonged drug exposure and potential increase in quality of life. The challenges of OT are adhering to a treatment regimen and managing side effects. Oncology nurses have the specialized knowledge to guide patients through barriers to adherence they may experience. The project's purpose was to increase the number of patients beginning new OT that were outreached to verify their adherence to the prescribed therapy. We did this by streamlining the ability to identify patients beginning new OT and implementing an EHR-based standardized workflow to outreach the patient about their adherence or challenges with their new OT. At our cancer center we introduced a standardized process to monitor adherence with patients' OT. In our baseline measurement period (1/1/2022 to 3/31/2022) we outreached 29 patients beginning new OT. An enterprise group of oncology nurses and administrative staff met weekly to discuss challenges and barriers to implementing the expected workflow. Through these discussions the group developed nursing-centric tools that nurses could use to better meet expectations. After 6 months of collaboration, a patient identification reporting tool was rolled out to help nurses track outreach to patients beginning OT. By 9/1/2022, we outreached 383 additional patients beginning OT, who began OT since 4/1/2022. As we continue to collaborate to streamline workflows and optimize resources, our cancer center strives to monitor the OT adherence of 75% of patients beginning new OT by December 31, 2023. This project highlighted the importance of automation of processes, specifically patient identification, and integration into existing workflows. As more cancer care takes place outside of the clinic setting, it is important that oncology nurses have the tools and education to empower patients to be treated safely and effectively.

## P238

### PHASE 1 ONCOLOGY TRIALS: COMING TOGETHER TO MEET THE CHALLENGES

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#### Coordination of Care

Oncology Phase 1 clinical trials are critical to the future of cancer care. These trials are resource intense and while these trials are important, many challenges exist to be successful. The purpose of this session is to identify potential challenges to success with implementing Phase 1 trials and processes that were developed to improve implementation. As part of a rapidly growing Phase 1 program, the oncology nurses in a large academic medical center recognized the need for improved coordination of the nursing processes necessary for successful implementation of these trials. It was quite evident that close coordination with the colleagues in the clinical trials office (CTO) was imperative. Additionally, an understanding of roles and responsibilities was essential. Other areas that needed to be addressed included feasibility to do specific trials, coordination of patient care needs between the CTO and infusion areas, identification of specific equipment necessary to implement the study and timing of PK's. The director of oncology nursing education and the Senior Director, Early Drug Development Office met to discuss strategies to best coordinate the care of the Phase 1 participants. As a result, standing meetings were held to allow for discussion with the front line leaders in both the CTO and the infusions centers. The main point of discussion was to assure the patient was the center of all decisions. Through this meetings, communication improved and all involved staff had a better understanding of each others roles improving overall communication. Additionally, the group established weekly meetings to address feasibility of potential trial. CTO, nursing and IDS pharmacy meet to address issues with specifics of potential trials and how best to proceed. During these meetings, any issues related to the trial, including special issues related to the drug, need for CSTD or specific equipment are discussed. Presently, the center has approximately 44 active Phase 1 trials with many more in the pipeline. These innovative approaches have allowed for improvement in the care delivered to this patient population.

## P239

### EMPOWERING FRONTLINE STAFF: IMPROVING PATIENT SATISFACTION

## THROUGH OUTREACH METHODS IN AMBULATORY CARE

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Communication is vital to clinical operations and patient outcomes in the ambulatory care setting. Leadership identified opportunities to improve patient satisfaction scores surrounding patient communication and education based on Press Ganey survey results. Ambulatory leadership focused collectively on empowering frontline staff through various forms of patient outreach aimed at improving the overall patient experience. A need to focus on patient satisfaction scores was identified as a priority across ambulatory care. Strategies for outreach identified targeting specific patient needs based on communication with various leaders and frontline staff. Key stakeholders were identified to participate in the performance improvement project. Focus groups were held with frontline staff and leadership to brainstorm, resulting in workflows addressing ways to improve patient communication. Leaders were responsible to guide their teams to develop and implement their new workflows. Outreach to new patients in the clinic setting, cycle one patients in infusion, and new patients referred to supportive oncology & palliative care was accomplished through staff performing follow up calls to patients. Hourly rounding in all ambulatory waiting rooms was another strategy initiated collaboratively with all members of the nursing team. Leaders continue to follow patient satisfaction scores to track progress quarterly. Monthly patient satisfaction results comparing baseline with year to date summary of all the leader's departments was used as a measure of success. Huddles held weekly with frontline leaders and staff to continuously evaluate progress. Pathways were created by each department to coordinate their outreach assignments and hardwire the processes. After reviewing the data, recommendations were made to place phone calls to patients to ensure their care coordination needs were met. Additionally, the nursing staff identified the positive impact providing symptom management and medication education on these calls would have on the patient experience. Building a standardized workflow through use of smart phrases for documentation would improve compliance, and also the communication and information collected by the staff member placing the call. Monitoring

the impact of the calls can be evaluated to a decrease in visits to urgent care, emergency rooms, and admissions/readmissions impacting financial revenue across the organization. Empowering the staff to participate led to performance improvement initiatives and professional development opportunities.

## P240 SUBCUTANEOUS CHEMO/IMMUNOTHERAPY ADMINISTRATION TECHNIQUE: ITS IMPACT ON NURSING FATIGUE AND PATIENT COMFORT

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*Oncology Nursing Practice*

Safe subcutaneous (SC) administration of chemotherapy and immunotherapy has been aided by the addition of hyaluronidase, a dispersion enhancer that facilitates spreading of the injected volume into subcutaneous space. Nurses administer these agents over approximately 2-8 minutes and report fatigue and difficulty maintaining stability of the SC needle, which can increase patient discomfort. Nurses have the option to use a SC needle or a winged butterfly infusion set (24g Saf-T-Intima™), as a 24g Saf-T-Intima™ IV catheter system can be inserted into subcutaneous tissue and used for SC infusion therapy, can reduce needle stick injuries, site reactions, and reduce catheter movement in comparison to SC steel needles. The purpose was to evaluate infusion nurses' perspectives on using a needle versus winged butterfly infusion set. Specific objectives were to evaluate nurse fatigue, perceived patient comfort, and nurses' preferences. Nurses were required to complete HealthStream™ education on how to use a winged butterfly infusion set when administering SC chemo/immunotherapy. Once complete, nurses had the option to use a SC steel needle or a winged butterfly infusion set. To evaluate the impact a survey was distributed to all infusion nurses via email to assess for preference, perceived patient comfort, and nurse fatigue. Forty-nine nurses shared their experience with administration of SC chemotherapy/immunotherapy via the winged butterfly infusion set. Use of a winged butterfly infusion set resulted in 87.76% of nurses reporting decreased fatigue; 77.55% of nurses reporting improvement in perceived patient comfort; and 95.52% of nurses preferring use of a winged butterfly infusion set. No SC chemotherapy/immunotherapy administration safety events were reported. A HealthStream™ module and hands-on demonstration on using a winged butterfly infusion set is now required of all new oncology infusion nurses. Creation of a "New

Practice Quick Guide” and QR code access to a “How To” video has provided continued support to current infusion nurses. Exclusive use of a winged butterfly infusion set for administration of SC chemotherapy/immunotherapy at our institution cannot be made due to the varying agents administered that require use of a SC steel needle, as well as respect of nurse autonomy and preference. Introduction of a new option for safe SC administration of chemotherapy/immunotherapy has been an innovative addition to infusion nurses’ practice.

## **P241 IMPROVING COPING SKILLS WHEN ONCOLOGY NURSES ARE CONFRONTED WITH THE DEATH OF PATIENT**

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### **End of Life**

Oncology nurses often develop profound relationships with the patients they interact with over extended periods of time. This familiarity allows nurses to show a level of compassion and empathy to patients during their cancer treatment. Unfortunately, some cancer patients die, leaving nurses with feelings of grief. Grief is well known and exists in many aspects of life. Work-related bereavement and grief are complex and can be challenging for nurses to deal with, especially when they have developed a close patient relationship. This can be a heavy emotional burden. Understanding the loss and bereavement experiences of nurses can assist organizations in developing support and resiliency for oncology nurses. An electronic report was developed to notify nurse managers of deceased patients treated in infusion centers/radiation therapy so they may share the names with the nursing team. A tip sheet was shared to the nurses on how they can be added to a patient’s care team to receive a message if the patient’s status changes. Binders were created for each department that contain bereavement cards with suggested language for staff to sign and mail to family members when a patient dies for closure as well as support services available for team members. An educational in-service was presented to the nursing team for awareness. At multiple infusion centers and radiation departments within a healthcare system, an interdisciplinary team developed a questionnaire that was administered to the oncology nurses. 65 questionnaires were received and reviewed. Baseline data showed over

90% of nurses want to know that their patient has died but 90% stated they were not consistently informed when their patient does die. While most nurses don’t have contact with the patient’s family after their death, 72% wish to express condolences. There were mixed responses to the level of awareness of support services available through the organization. The interventions have been implemented and the organization is in the process of completing post data review to evaluate effectiveness. It is crucial for organizations to identify ways to assist oncology nurses on how to improve their coping skills when confronted with the death of a patient. This will allow nurses to continue to support patients and their family members through their cancer journey as well as developing self-care techniques and resiliency.

## **P242 IMPLEMENTATION OF FILGRASTIM ADMINISTRATION GUIDELINES FOR CELLULAR THERAPY COLLECTIONS WITHIN THE EPIC APHERESIS FLOWSHEET**

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Patients undergoing mobilization for cellular therapy collections receive a hematopoietic growth factor called Filgrastim in order to marshal the cells from the bone marrow to the bloodstream. The Apheresis nurses must follow specific Filgrastim administration guidelines based on white blood cell (WBC) parameters to determine if administration is warranted. This involves a 2-step decision-making process for the day of collection. The nurse first checks the WBC result from the previous day of collection and depending on the result, the nurse will administer Filgrastim and proceed with the collection or will hold Filgrastim to wait for the day of collection WBC result. Based on the increase in Filgrastim medication variances, the Quality Manager identified the need to improve the process. The purpose was to create an electronic process for Apheresis nurses to refer to the Filgrastim administration guidelines within the Electronic Medical Records (EMR) to improve patient safety and compliance with the guidelines. A quality committee worked with the Epic Optimization team to explore including the Filgrastim administration guidelines within the Epic Apheresis Flowsheet. A Filgrastim Administration specific section was added to the Apheresis Flowsheet to a location that follows the workflow. The following

three documentation requirements were built in the section for the nurses to complete; Preceding day WBC > 50, Filgrastim Hold Needed, and 2nd Nurse Verification. This allows the nurses to confirm the Filgrastim administration based on the WBC from the previous day on the first row and the day of collection on the second row. The third row will allow for double verification requiring a second nurse sign off prior to any Filgrastim administrations. A one-month post-implementation audit was performed to review accurate Filgrastim usage and completion of the flowsheet. The audit performed included 13 patients and the compliance rate was 100%. The recent Medication Events audit resulted in zero further Filgrastim events. A Medication Events audit will continue to be performed bi-annually. Filgrastim during cellular therapy collections must be administered per specific guidelines. Optimizing the Epic Apheresis Flowsheet helps to ensure accurate administration per the guidelines and allows for safer administration with a double verification. Using existing technology is a low cost, high efficacy way to improve the quality of cellular therapy collections and patient care.

## **P243 DEVELOPMENT AND IMPLEMENTATION OF A NURSE TRIAGE PROTOCOL FOR A SYSTEM, COMMUNITY-BASED OUTPATIENT CANCER INSTITUTE**

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### **Oncology Nursing Practice**

Nurse triage is a critical component of outpatient oncology care. Patients with cancer experience a variety of symptoms that are managed by medical oncology nurses. Without proper triage, patients may seek out inappropriate care resulting in delayed clinical intervention and potential improper use of emergency services. Optimization of nurse triage in oncology care can facilitate evidence-based practice interventions, improve clinical outcomes and patient experience. The purpose of this quality improvement project was to develop and implement a nurse triage protocol across a multi-site community oncology healthcare system to improve symptom management and to ensure an appropriate

level of care. A nurse triage workgroup was formed, which included medical oncology and infusion nurses, a nurse informaticist, nurse educators, nurse managers, and a medical oncologist. The workgroup identified the major symptoms for protocol development: abdominal pain, chest pain, diarrhea, dyspnea, fever, headache, musculoskeletal pain, and nausea/vomiting. Nurse triage protocols for these symptoms were then created by using national evidence-based practice guidelines and subsequently developed in Epic. Phase one of this project involved training for triage nurses and development of a systematic rollout plan for implementation. A robust reporting system was developed in Epic to inform nurse leaders. This data supports quality, safety, and patient experience metrics for the system. Use of the nurse triage protocol system has been measured by the following metrics: call volumes, reason for call, patient disposition, clinical interventions. Triage nursing staff surveyed for continued optimization and end-user satisfaction. From September 2019 to September 2022, 7 sites were live with the system and 53,858 total triage calls were fielded. The top three reasons for call were: 1) Advice only (11,594); 2) Medical complaint (5,246); and 3) Medication (4,596). The most common symptom triaged was pain (891). The top three patient dispositions were: 1) Information or advice only call (21,267); 2) Provider action needed (9,895); and 3) Follow up (6,826). The most common disposition indicating patient level of care was See today in the office (858). High call volumes across all live sites indicate the utility of the triage protocol system. Next steps in this project include: 1) Protocol development for additional symptoms; 2) Implementation across more clinical sites in the system; 3) Needs assessment for increased nurse triage positions as utility is evaluated; and 4) Evaluation of patient safety and experience metrics.

## **P244 USING BREAST CANCER NAVIGATION MAPPING TO STANDARDIZE AND IMPROVE TEAM WORKFLOWS**

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### **Coordination of Care**

Breast cancer is the most common cancer in women. In 2015 our clinic established a multidisciplinary clinic (MDC) where newly diagnosed women with breast cancer were seen by a surgeon, medical oncologist, and radiation oncologist in the same day. The nurse navigator



was responsible for informing women of their biopsy results, coordinating their MDC visit, and providing education as well as community resources. When the nurse navigator left in 2021, we took the opportunity to re-evaluate staff roles and responsibilities, as well as the MDC, prior to hiring two part-time nurse navigators for the department. Our objectives were to 1) evaluate, standardize, and improve workflows for breast navigation, and 2) create a visual workflow to clarify roles and responsibilities for all breast care team members. Initial steps for this project involved creating stakeholder workgroups (e.g., surgeons, medical oncologists, department director, CNS, health educator) to clarify our vision for breast navigation and the role of the nurse navigator. Visual mapping is a way of information presentation ~ where ideas are placed into a structured diagram, using graphical elements such as shapes and lines. Visio software was utilized in the development of the mapping document. The map consists of columns for different phases of patient care (e.g., pre-diagnosis, diagnosis, various treatment pathways, survivorship) and rows for each role/department participating in that stage (e.g., medical assistants, RN navigators, radiologists, genetic counselors, breast surgeons, plastic surgeons, medical oncologists, radiation oncologists, social workers). Each cell contains steps in the workflow applicable for the specific stage and role. The map is color-coded and uses various shapes to make it easier and quicker to comprehend. During the development process of the visual map, we were able to: 1) clarify each step of the patient's journey, 2) determine the appropriate team member to provide specific aspects of care, and 3) develop new processes. Our mapping process became an integral part of nurse navigation orientation and led us to delegate basic tasks to the medical assistants, thereby freeing the navigators to initiate patient intakes and monitor women throughout their breast cancer continuum of care. While the Breast Cancer Navigation Map is a continual work in progress, it has proven to be effective in identifying gaps, thereby improving workflow processes and efficiency.

## **P245 DECREASING HOSPITAL ACQUIRED PRESSURE INJURIES USING A TRIAD APPROACH TO SKIN ASSESSMENT**

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Oncology Nursing Practice

Oncology patients are particularly vulnerable to skin breakdown, putting them at risk for infection, discomfort and decreased quality of life (QoL). At our National Cancer Institute (NCI) Designated Comprehensive Cancer Center, quarterly hospital acquired pressure injury (HAPI) rates for our 30 bed medical oncology unit were frequently above the benchmark. The unit receives a large volume of patients from home, ED and ambulatory/infusion areas where skin issues and breakdown are rarely documented in the patient chart. Consistent identification of skin issues on admission can improve oncology patient outcomes and QoL. The purpose of this quality improvement project was to utilize a triad structure that engaged the skin champion, nurse manager (HM) and clinical nurse specialist (CNS) to improve pressure injury (PI) identification on admission and reduce HAPI rates on a 30-bed medical oncology unit. Our skin champion adapted a skin assessment admission tool that served as a bedside reminder and accountability tool for staff. Staff education about the tool was provided by the NM, which included expectations for completion. The tool was to be completed on every admission to the unit and required two nurses to complete and sign the skin assessment tool. Bi-weekly, the NM compared completed skin tools to the admission logs and sent email reminders to staff when admission skin assessments were not completed. At the beginning of each month, the previous month's skin assessment data was compiled by the CNS and NM, then reviewed by the skin champion and presented at staff meetings. Completion of the skin assessment tool was 52% the first month and has improved to approximately 70%. During the 3-week roll out, 84 skin issues were identified on admit, including 16 pressure injuries. Of the 84 identified issues, 42% were previously undocumented. Identification of previously undocumented skin issues trended up to 85% since the tool was implemented. Since implementing the tool, HAPI rates for the unit have trended to zero for the most recent three quarters. Cancer patients are at risk for PI, which can decrease quality of life and increase patient and hospital costs. Oncology nurses play a critical role in admission identification and documentation of skin issues. Utilizing a triad approach that includes championing a skin assessment tool, staff accountability and timely review of data can increase identification of skin issues and decrease HAPI rates.

## **P246 INCREASING POST-TREATMENT PHONE CALL COMPLIANCE IN THE AMBULATORY ONCOLOGY SETTING**

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#### Oncology Nursing Practice

Patients receiving chemotherapy, biotherapy, and immunotherapy frequently experience side effects following treatment. Nurse driven post-treatment phone calls (PTPCs) are completed within 72 hours of Cycle 1, Day 1 of any new treatment. PTPCs proactively assess side effects following treatment and self-care management of these symptoms. They reinforce teaching and provide additional recommendations and/or education to improve symptom management. PTPCs can assist in coordinating a provider appointment and other outpatient interventions to prevent emergency room visits and hospital admissions. The responsibility of completing PTPC's was transitioned from co-chairs to the patient's treating infusion nurse in April 2022 to provide co-chairs ample time to determine deeper trends in data, which resulted in a decreased compliance rate in call completion. The purpose was to increase PTPC compliance to 90% or greater to ensure oncology patients are safely tolerating treatment, managing side effects, and avoiding hospitalizations. Co-chairs track all Cycle 1 Day 1 treatment patients on an Excel spreadsheet including patient MRN, treating nurse, treatment date, and whether the PTPC was completed. To increase call compliance by treating nurses, daily reminders were provided to RNs via huddles, sticky notes, teams messages, and tip sheets displayed on how to complete a call. The co-chairs created a staff survey to determine why compliance has decreased since transitioning responsibility of calls to infusion nurses and what barriers exist to completing calls. A focus group was created to discuss survey results and to develop a plan to enhance compliance. Average PTPC compliance since April 2022 is 84.6%. The main barrier noted by treatment nurses as to why PTPC's are not being completed is a busy assignment. A common theme identified is patients physically in the clinic taking priority over calling a patient at home. The co-chairs and leadership are in the process of scheduling PTPC's as Telehealth visits to be added to a nurse's daily schedule. This will be fully implemented by November 1, 2022. Nurses will likely feel a greater responsibility to complete PTPC's if they are integrated into the daily assignment as Telehealth visits. Co-chairs will track call completion upon implementing this plan on November 1st, ensuring scheduling is completed accurately and that nurses are attending the visits. A long-term goal is for this process to be instituted across all Smilow Cancer Hospital care centers.

## P247

### A QUALITY IMPROVEMENT PROJECT TO IMPLEMENT SYMPTOM ASSESSMENT IN COMMUNITY-DWELLING POLYCYTHEMIA VERA PATIENTS

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#### Screening, Early Detection, and Genetic Risk

Polycythemia vera is a rare hematologic malignancy with debilitating disease related symptoms including fatigue, vascular symptoms, splenomegaly-related symptoms, and constitutional symptoms. Clinical practice guidelines recommend symptom assessment at baseline and monitoring during treatment for improvement or worsening of symptom burden using the Myeloproliferative Neoplasm Symptom Assessment Form Total Symptom Score (MPN-SAF TSS; MPN-10). The quality improvement initiative aimed to improve identification of symptoms during therapeutic phlebotomy for community-dwelling patients with polycythemia vera by utilizing the MPN-10 and communicating symptom findings to the treating physician through the electronic medical record (EMR). The MPN-10 was administered to adult patients with polycythemia vera in the infusion center at a large community hospital between February 2022 and July 2022. Patients with polycythemia vera undergoing therapeutic phlebotomy were identified by the oncology nurse and blood bank staff at the time of procedure scheduling. The MPN-10 tool was administered, collected, assessed for completion, and attached to the lab result and routed through the EMR to the treating physician for review and intervention. The overall sample size of this quality improvement project included two patients with one of the two patients completing an initial and subsequent MPN-10. The second patient completed the MPN-10 during their first visit. Prior to the implementation, the symptom burden of patients was not adequately assessed. Post-implementation, that number increased to 100% (n = 2 of a total of 2 participants) being administered, collecting, and completing the MPN-10. In addition, post-implementation, 100% (n = 2 of a total of 2 participants) had the MPN-10 attached to the laboratory result. Implementing the use of the MPN-10 during therapeutic phlebotomy proved to be a novel initiative to identify symptoms in patients with polycythemia vera. Compliance was achieved in 100% of patients with the change in process demonstrating that implementing an evidence-based staff education

program improved the symptom assessment of community-dwelling patients with polycythemia vera. Future considerations should evaluate if the provider took action based on the survey results. Consideration should be given to embedding the MPN-10 into the EMR to automate the process and improve sustainability. This would allow for capture of symptoms when the procedure is cancelled due to not meeting the threshold for a therapeutic phlebotomy. In addition, decision support tools such as reminder support could be utilized to increase survey completion.

## P248

### LESS STICKS, HAPPIER PATIENTS: IMPROVING THE THERAPEUTIC PHLEBOTOMY EXPERIENCE

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Oncology Nursing Practice

The serial nature of therapeutic phlebotomies in cancer treatment over months to years can result in patient anxiety as multiple needle sticks are required for each step of the process: labs, venous access for phlebotomy, and often IV hydration post phlebotomy. Nursing used a large, 16-gauge fixed needle drainage system for therapeutic phlebotomies which did not flex with access and required secondary initiation of an IV catheter for hydration. The set-up could not be covered with an occlusive dressing (as recommended by professional organizations), risking infection. The product used also caused tissue trauma, risked vessel damage, and did not allow for control of the rate of blood flow resulting in faster than recommended phlebotomy time. These factors contributed to increased pain and anxiety for patients, decreased patient satisfaction, and did not align with best practice recommendations. Staff nurses in a cancer clinic recognized these issues and took action to advocate for an improved product. The clinic manager shared staff concerns and worked collaboratively to find a cost-effective solution. Clinic staff and management collaborated to find a product that better met patient needs/expectations, aligned with the practice recommendations of professional organizations, and met the financial goals of the organization. The clinical concern was presented to the Value Analysis staff in Materials Management, who assisted with researching an alternative product. Together the staff nurses, leaders, and members of Materials Management found a product that flexes with access, can be covered with an occlusive dressing, allows a simple transition from the luer lock end of the collection bag to the primary line for IV hydration, and slows down

blood flow with a smaller, 18-gauge needle. The new product was purchased and put into practice. Patients report fewer symptoms and a more comfortable experience. Nurses are encouraged to bring their concerns about patient care practice or process to management and work collaboratively to reach a satisfactory result. The product change had a positive effect on practice and increasing nurse productivity. While the product was more expensive than previously utilized, when nursing time/cost was added into the equation, it became a more equitable option. This change increased both patient and nurse satisfaction.

## P249

### IMPROVING COMMUNICATION FOR PATIENT HANDOFFS BETWEEN HEMATOLOGY, TRANSPLANT, AND CELLULAR THERAPY CLINICS TO OPTIMIZE PATIENT EXPERIENCE AND OUTCOMES

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Coordination of Care

Our cancer center is a National Cancer Institute designated center serving oncology patients with hematologic malignancies (leukemia, lymphoma, and multiple myeloma) requiring intense chemotherapy regimens necessitating frequent bloodwork and disease state evaluations. These patients often transfer into other departments, Blood and Marrow Transplantation (BMT) or Immunotherapy (IMTX) within our center. The BMT and IMTX clinics treat approximately 500 patients a year and care spans multiple clinical areas, with complex hand offs between Hematology (Heme), BMT, and IMTX from diagnosis to treatment and into maintenance care. Nurses recognized an increased need to align communication and collaboration across handoffs with focused establishment of a new communication tool to facilitate best care for patients across the trajectory of care. The purpose was to develop a system for aligning communication handoffs between the Heme, BMT, and IMTX clinical settings. The Heme Professional Practice Coordinator (PPC) and BMT PPC collaborated to build a structured handoff note template, located in the electronic health record (EHR) system, Epic. This template, a SmartPhrase, prompts nurses to address and record the various aspects of cancer care coordination. Examples of headings in the SmartPhrase are: Vascular access, fall risk, caregiver status, psych/social issues which guide a standard of documentation individualized for patients'

specialized care. The SmartPhrase and workflow were socialized at daily huddles, weekly, and monthly local practice council meetings to integrate the practice into care across Heme, BMT, and IMTX. Initial evaluations demonstrated the system is consistent and efficient compared to the individual non-standardized methods of communication facilitating a comprehensive hand-off. The system has cultivated success in augmenting communication for handoffs. Challenges have emerged when nurses use the SmartPhrase in the in basket note versus using the SmartPhrase in an encounter. Saving within an encounter makes the handoff more visible to nursing staff. Nurses are learning new workflow using electronic handoff. With additional socialization, nurse compliance is improving. Patient experience has improved due to better communication between the teams for handoffs and assures best nursing care and clinical outcome for HEME, BMT, and IMTX patients.

## **P250**

### **THE EFFECT OF VIRTUAL REALITY SIMULATION ON CRITICAL THINKING SKILLS OF ONCOLOGY NOVICE NURSES IN A NURSE RESIDENCY PROGRAM**

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*Oncology Nursing Practice*

Utilizing Virtual Reality Simulation (VRS) for novice nurses can help to assess their critical thinking skills and delivery of safe care. In the oncology setting, novice nurses work with vulnerable populations with multiple chronic conditions and the use of a central venous catheter plays a vital role in managing their cancer care. Maintaining quality care and safety in the care of the oncology patient is essential and VRS can be used to train novice nurses in a skill where experiences may be limited in preventing central line-associated bloodstream infections in a safe learning environment. VRS training provides nurses with the opportunity to improve patient care by developing competency through practice, feedback, and self-correction. VRS training effectively develops critical thinking and competence. This VRS project has been directly applied to novice oncology nurses to manage and prevent central line-associated bloodstream infections. Participants were given a central venous catheter knowledge and attitude questionnaire pre- VRS to have a baseline assessment. The participants watched three VRS videos on central line dressing changes allowing the participant to critically assess each video to spot errors in practice. The questionnaire was given post videos along with a simulation effectiveness tool to rate their experience. The same follow-up questionnaire was given two weeks

later while the novice nurses were working with their preceptors who enforced training both hands-on and simulated, providing remediation if necessary. VRS did strengthen the critical thinking skills and competency of the novice nurses, but the improvement was not immediately seen. The combination of VRS and hands-on care and real-time exposure in the two-week timeframe between the post-test and the final test made a positive difference in the outcomes. VRS alone did not make a significant impact but put in combination with hands-on care and patient exposure improvement was seen. It has been found that adopting technologies such as VRS can enhance learning and ensure the novice nurse is prepared to practice independently and confidently, especially in the areas of preventing central line-associated bloodstream infections in vulnerable populations.

## **P251**

### **PATIENT-REPORTED OUTCOMES IN CANCER CARE: A DIRECT MEASUREMENT OF PATIENT EXPERIENCE**

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*Symptom Management and Palliative Care*

Current literature suggests that clinicians often miss many symptoms experienced by patients receiving chemotherapy leading to consequences such as poor management of symptoms, missed treatments, and unnecessary emergency department visits. Patient-reported outcome measures (PROMs) present a direct evaluation of patients' experiences or patient-centered domains such as the severity of symptoms, physical and psychological function, and quality of life using validated scales. The purpose was to conduct a literature review to search for the best evidence on the use of PROMs in cancer care. A comprehensive literature review using the CINAHL, PubMed, and Google Scholar databases identified five themes related to the positive impact of PROMs including improved patient-clinician communication, patient satisfaction, clinical outcomes, health-related quality of life, and health service outcomes such as reduced emergency room visits. Growing evidence suggests that consistent use of PROMs provides valuable information on the health status and overall wellbeing of patients, promotes patient-provider communication and shared decision-making, and provides data for quality improvement and benchmarking. The measurable outcomes of implementing PROMs include improved Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) scores related to patient engagement/patient-centered care and reduced unnecessary emergency room visits.

To improve patient outcomes and ensure quality patient care, the role of patient-centered care is integral. Fast-paced ambulatory settings face numerous barriers to the consistent and clear exchange of information between patients and healthcare providers. Several studies identified limitations such as limited diversity in study participants, types of cancers, and treatment modalities. There is a lack of established standards on the utilization of PROMs in different settings. However, this review highlights the necessity of the routine collection of PROMs to improve the quality of care and outcomes. It is critical for physician practice leadership and senior leadership of healthcare organizations to acknowledge the relevance of PROMs and promote their utilization in cancer care. Successful implementation of PROMs requires careful planning and stakeholder engagement to avoid additional burdens to patients and challenges to the workflow of clinicians. As hospital reimbursement shifts from fee-for-service to value-based and patient-centered care, implementing PROMs is imperative. Optimizing patient experience may improve HCAHPS scores related to patient engagement/patient-centered care. Improved HCAHPS scores increase the reputation of organizations among healthcare consumers. Furthermore, it may increase the quality of life of patients with cancer.

## **P252 REMOVING THE PRIMARY NURSE SILOS THAT DIVIDE US. A SHIFT TO COLLABORATIVE NURSING IN AMBULATORY MEDICAL ONCOLOGY CLINICS**

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[Oncology Nursing Practice](#)

The pandemic of COVID-19 had a significant impact on patient care delivery models in ambulatory medical oncology clinics in a Midwest academic medical center. Prior to the pandemic, medical oncology single provider clinics had the support of a primary nurse who oversaw the comprehensive needs of patients prior to chemotherapy administration, and two additional support nurses who managed the immediate clinical needs of patients. Daily clinic volumes would range from 15-25 patients and would also include 2-3 new patients seeking Medical Oncology care for a new diagnosis. Post pandemic staffing supported only two nurses in the medical oncology clinics with the same patient volume and illness level. Patient related administrative tasks and other responsibilities continued to be the responsibility of the primary nurse. The work-

load was unbalanced and led to increased dissatisfaction, and multiple nurse resignations. Current staffing levels continue to impact nurse satisfaction and morale and have necessitated the need for the change to a collaborative nursing model. A collaborative nursing model will provide efficiency, foster a supportive clinic environment where all staff can develop their skill set and learn from each other, share responsibilities in an equitable way, and continue to meet the complex clinical needs of patients with gastrointestinal cancer. A comprehensive review of the primary nursing model was necessary to examine the need for change. Nursing staff are currently working together toward a collaborative staffing model that reflects a return to a more balanced workload for all clinic nurses, the ability to work interchangeably in different medical oncology clinics to support staffing needs, mentor new staff to achieve success in this role and receive additional support and teaching from our APRN staff. We will also focus on care of colleague as we work together to navigate the change with the goal of nurse retention and staff satisfaction. Success of this intervention will be measured through nurse retention metrics and nurse satisfaction surveys related to the collaborative nursing model. Surveys will be introduced winter 2022-23 as we continue to onboard new nursing staff, and fully implement the new nursing model.

## **P253 REVITALIZING CARE DELIVERY AT THE FRONTLINE: THE USE OF SIMULATION AS A TOOL TO TRAIN NURSES TO MANAGE A TAXANE INDUCED HYPERSENSITIVITY REACTION**

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A review of safety events at an outpatient comprehensive designated National Cancer Institute (NCI) revealed the most frequent drug reactions occur with Taxane and Platinum based drugs, which require a drug-specific protocol. Surveys and interviews with frontline nurses highlighted a lack of confidence in the ability to manage hypersensitivity reactions (HSR). Lack of protocol use during an HSR and variations of



managing and grading an HSR event were also noted. Overall, nurses were challenged by the task of grading an HSR event using an evidenced based, yet unfamiliar protocol and managing the event without standardized roles. This project provided nurses with a simulated scenario to effectively manage a HSR. The simulation training provided an opportunity to practice HSR management including appropriate protocol choice, team communication, role delegation, medication use, and transfer to higher level of care. A simulation was designed with a patient progressing to a severe HSR after Taxol administration. Four nurses participated in managing the reaction based on current skill. Then a debrief was completed, where instructors coached and the nurses self-identified gaps in knowledge. Debriefing also reviewed HSR medications, protocol, communication techniques, timely transfer of care, and nurses' roles. The simulations were repeated until mastery, allowing nurses to apply what they had learned prior to their next clinical event to improve their patient's outcome. The entire nursing unit completed this training. Pre and post surveys were used as specific measurements. Nurses expressed increased confidence in communication, role delegation, and medication use. Nurses valued the use of the protocol during the simulated event to assist with documentation and calling out next steps, which made the primary nurse feel supported and ensured evidence-based practice was performed. The simulation experience provided nurses with a safe space to learn standardized protocols and increase confidence during an HSR. Having the ability to practice roles and administer medications based on patient symptoms in a simulation was valuable, increasing their skill and confidence. Using the protocol to guide implementation of care and documentation provided direction for novice and experienced nurses. By offering annual training that includes all the unit nurses we are shifting the team culture and improving team confidence and knowledge during this event, therefore influencing how care is delivered to the patient.

## **P254**

### **OUTPATIENT ONCOLOGY FALL RISK: A QUALITY IMPROVEMENT STUDY**

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[Patient Education and Safety](#)

Patients receiving cancer treatment may be at higher risk for falls than the non-cancer population. Potential factors include the impact of neurotoxic chemotherapy on patients' sensation and balance as well as hemodynamic instability associated with orthostatic hypotension. No current guidelines or standards of care exist for the assessment and prevention of falls in the outpatient oncology population. The purpose of this quality improvement project was to describe and evaluate outpatient oncology falls data to determine root cause(s) and develop, implement, and evaluate intervention strategies for future policy refinement. Due to concurrent initiation of a new Ambulatory Fall Risk Bundle (Bundle), the project team pivoted to compare pre/post Bundle implementation fall rates and assess staff integration of, and satisfaction with, the new protocol. Retrospective data were used to describe and categorize fall incidence for a midwestern comprehensive cancer center over a 12-month period. Staff education preceded Bundle implementation. Bundle components included application of a yellow fall risk wrist band at time of check-in, electronic medical record (EMR) fall risk alert, yellow triangle fall risk flags within and outside of clinic rooms, safe patient positioning, and patient education on fall prevention. Analyses were conducted on fall rates per 10,000 kept appointments pre/post staff education and bundle implementation. Semi-structured, qualitative interviews were conducted with Medical Assistants and nurse managers to evaluate the impact and satisfaction with the staff education, bundle components and implementation. Post-Bundle implementation fall rates remained unchanged. Staff feedback indicated that the bundle and education were not effective in changing practice. Related factors included lack of stakeholder involvement in protocol design and the need for clinic-specific customization. Future quality improvement recommendations for fall risk reduction included improved assessment with an orthostatic vital sign monitoring protocol and redesign of the electronic medical record (EMR) fall risk alert documentation. Multifactorial educational strategies, additional safety equipment, personnel to escort patients between clinic areas and at discharge, and bathroom spatial reconfiguration also were suggested during the staff interviews. Shifting the focus of quality improvement for fall risk mitigation to the outpatient oncology setting is innovative as no current guidelines for assessment or mitigation are available. Our findings will inform development of an orthostatic

vital sign assessment protocol and exploration of a redesign of the EMR fall risk alert functionality.

## P255

### EMPOWERING NURSES TO ADVOCATE FOR PALLIATIVE CARE

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#### Symptom Management and Palliative Care

Staff Nurses on an inpatient Medical-Surgical Oncology (MSO) unit reported difficulty identifying patients in need of palliative care and articulating those needs to the medical team. Cancer patients have complex physical and psychological needs throughout their disease trajectory, necessitating the concurrent delivery of palliative care (PC) with curative treatment. However, barriers to timely delivery of PC are well documented in the literature. Identification of Patients in Need of General and Specialized Palliative Care (ID-Pall©) is a validated screening instrument that was developed to distinguish patients in need of general versus specialized PC, regardless of underlying diagnosis. The ID-Pall© is a two-part instrument that can be administered to adult patients regardless of their diagnosis or care setting. The ID-Pall© does not require detailed medical information and can be utilized by either nurses or physicians. This quality improvement project was launched to 1. increase nurses' confidence to initiate conversations about PC 2. identify patients in need of generalized or specialized PC, and 3. strengthen the nurse's role in communicating those needs to the medical team. Pre-implementation data was collected via a survey (n=45) measuring nurses' confidence in initiating conversations about PC to and baseline understanding of general versus specialized PC. Nurses then attended a two-hour educational session to learn proper screening of patients using ID-Pall©. All MSO patients were screened on day three of admission or with a significant change in their condition over a 60-day period for the pilot. Prior to implementation, 43.5% of nurses reported that they felt confident initiating conversations about PC and 56.5% of nurses reported that they did not understand the difference between generalized and specialized PC. A total of 119 screening instruments have been completed to date. Preliminary data reveals nearly one third of patients screened with

ID-Pall© scored positive for either general or specialized PC needs, empowering the nurses to advocate for these PC needs. Nurses often report the need for PC services but have difficulty articulating exact patient needs to the provider. The ID-Pall© empowers nurses to independently screen for PC needs, articulate the needs to the medical team, and advocate for the patient. While final data is being collected, the hope is to expand the use of the tool to additional units. Data will be finalized at the time of congress.

## P256

### PAVING THE WAY FOR IMPROVEMENT: A NURSE-LED INITIATIVE FOR IMPROVING HEAD AND NECK CANCER CARE

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#### Coordination of Care

Head and neck cancer (HNC) is complex and demands a multimodal, interdisciplinary care approach throughout the care continuum. Frontline HNC-dedicated clinicians sought support from oncology nurse leaders in patient education and clinical practice to prioritize HNC care coordination, team communication, and patient education materials. Further review of the identified needs revealed the opportunity for nurses to engage all HNC stakeholders to build an action plan for ongoing improvements. The purpose was to describe the formation of the Head and Neck Cancer Continuum Task Force (HNCCTF) – an interdisciplinary team to address unmet patient needs across the HNC care continuum. Two nurses partnered with the HNC Administrative Director to lead a multi-site interdisciplinary team of oncologists, nurses, advanced practice providers, speech pathologists, audiologists, case managers, dentists, navigators, physical therapists, respiratory therapists, social workers, home health nurses, and patient advisors. The team evaluated multiple data sources (e.g. referrals, clinical volume, patient satisfaction, published literature). The need for four HNC action teams was identified: (1) Patient Education, (2) Tracheostomy/Laryngectomy, (3) EHR-optimization, and (4) Care Continuum. Each action team, co-chaired by a nurse and another health professional, is implementing independent projects to achieve 1-2 annual

SMART goals. The following products have resulted from each HNC action team, demonstrating productivity and success of each: (1) Patient Education documents for: oral care, dry mouth, mucositis, one-way speaking valves, radiation skin changes, eating hints, and osteoradionecrosis; (2) Tracheostomy/Laryngectomy contribution towards health system development of: Trach Patient Education Handbook, Trach Navigator role, safety events review processes, a staff education plan; (3) EHR-optimization: improved coordination, communication, and compliance tracking; and (4) Care Continuum: improved access to speech/radiology diagnostics, community screening, and HNC support groups. The development of an engaged interdisciplinary HNCCTF is an example of a high impact model that other oncology nurses can apply to significantly improve communication between care team members so that collective goals can be achieved. Performing an annual review of past accomplishments and future action team goals provides ongoing improvement of care gaps. This high impact, productive model is novel because it was developed and led by oncology nurses, who traditionally participate but not lead these efforts. The HNCCTF broke down historically siloed and unstandardized systems of communication and coordination between multiple disciplines and care settings.

## P257

### LIVE MUSIC AT THE ONCOLOGY BEDSIDE

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#### Psychosocial Dimensions of Care

Cancer diagnosis and treatment is one of the most complex and traumatizing life events. Cancer impedes physical, social, and emotional well-being and often generates a range of emotions including anxiety, depression, fear, sadness, anger, guilt and even shame. Studies have shown that during and after treatment patients suffer from elevated emotional distress and physical and psychological disorders. These undesirable side effects from cancer related treatment and therapy amplifies the overall stress. According to the American Music Therapy Association "Music Therapy uses music to address physical, emotional, cognitive, and social needs of patients." The purpose of his project was to use music at the bedside to increase the overall quality of life and soothe the undesirable emotions associated with cancer. On our inpatient Blood and Marrow transplant unit, music at the bedside is designed to promote wellness, relaxation and to provide

a sense of normalcy and a distraction with individualized, interactive and personal experience through live, virtual musical performances. In 2019 live music began with a trained artist from the Eastman Performing Art Medicine performing in-person on the unit. Schedule, budget, patient population, infection control protocols and expectations were discussed, reviewed and established. Despite the COVID-19 Pandemic, music therapy continued virtually through the use of iPads donated by a former patient with funding and provided through a grant. Informal patient and staff feedback has been positive. Qualitatively, many patients have expressed the music therapy sessions as uplifting, amazing, honorable, and unforgettable. And staff have expressed the joy of seeing patients smile from their interaction with the musician. The program has since been adopted on two other units and early anecdotal evidence show is it positive. Music at the bedside is a non-pharmacological intervention for our cancer patients. The power of music is an unrealized effective and supportive tool that affects and benefits patients emotionally, physically and spiritually. Through enhanced relaxation and interactive listening, our patients are able to experience and have shared a sense of joy, uplifting and improved mood, decreased anxiety and emotional distress and a feeling that aids them to cope with loneliness and fear.

## P258

### EARLY IDENTIFICATION OF FINANCIAL TOXICITY AMONG ONCOLOGY PATIENTS

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#### Coordination of Care

Financial toxicity (FT) is the negative patient impact of medical expenses for cancer treatment. This can be through direct costs such as out-of-pocket medical expenses or indirect costs such as lost wages and travel needs. Out-of-pocket expenses drain savings, retirement funds, and assume debt thus reducing resources. When unresolved, FT related to cancer treatment has been correlated with poor outcomes and decreased quality of life. In the United States alone, the percentage of patients with cancer experiencing FT is as high as 80%. The purpose was the improvement of early identification of cancer patients at risk for FT. Standard distress screening of patients in an academic cancer center identified 40% of patients at risk for FT. An additional 30% of patients not captured through screening were later identified through clinician communication during treatment. Thus, to improve early identification of high-risk patients, the

Comprehensive Oncology Screening Tool (COST), a 12-question validated patient questionnaire developed at the University of Chicago specific to cancer-related FT, was piloted in two oncology clinics. Possible scores range from 0-44; the lower the score, the greater the risk for FT. Patients scoring <18 were identified as high risk and referred to a social worker. Almost 100 patients (n=96) were approached; among them, 78 (81%) completed the questionnaire during a clinic visit with their primary oncologist. The mean COST score was 23.7 SD (9.6). Over 30% (n=24) scored at high risk for FT and were referred to social work for follow-up. The COST tool effectively screened patients at risk for FT. In addition, standard screening captured only 2 (8%) of the 24 at risk for FT using the COST tool. The COST tool effectively screened patients at high risk for FT. Early identification of high-risk FT cancer patients can have a significant impact on maximizing cancer patient outcomes. Screening tools specific to financial distress should be considered in addition to broad distress screening. Opportunities for these patients to receive potential resources early on: can relieve anxiety and lead to favorable outcomes. While great advances have been made in cancer treatment, there has been little focus on the financial burden to patients. In addition to researching how patients are responding to these drugs; this project, adds a forward-thinking approach to meet the psycho-social needs of patients undergoing cancer treatment.

## **P259**

### **IMPROVING PATIENT PREPAREDNESS FOR OUTPATIENT MOHS SURGERY**

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#### **Oncology Nursing Practice**

Mohs surgery is the gold standard for treating most skin cancers including basal cell carcinoma and squamous cell carcinoma. While it is an outpatient procedure, it can be difficult for patients to understand the pre-procedure and post-procedure instructions. Utilization of a multi-disciplinary approach and nursing education before and after the procedure can help increase Press-Ganey scores, improve overall patient understanding and identify potential complications. The purpose of this project was to increase the patient

and caregiver's understanding of the Mohs procedure, improve Press-Ganey scores, and provide a more comprehensive understanding of the pre and post procedure process. While improving patient preparedness was the first purpose, it also allowed the nursing team to educate patients on the length of procedure time as well as temporary cosmetic imperfections during the healing phase. The patients scheduled for Mohs surgery would receive a call 1-week prior to their appointment from the nurse to discuss what to expect. While in the office, immediately following the initial Mohs stage, the patient would watch a video about post procedure care that we provide from the American College of Mohs Surgery. The patient would be discharged with written and verbal instructions. The patient would then be called 24 hours' post-procedure to discuss questions, concerns, or problems. Press-Ganey scores were tracked weekly for 12 weeks, which showed Press-Ganey scores steadily increasing over that time. Due to these changes in nursing practice, Press-Ganey scores rose from 88% to 92%. Patients reported that they felt more comfortable and had a better knowledge of what the procedure entails and how to better prepare at the time of discharge. Patient education is at the forefront of outpatient nursing and surgery. Providing proper patient education tools can improve patient's understanding, help prevent or reduce potential complications and also raise Press-Ganey scores. Improved patient education also leads to post procedure compliance and how to recognize any unexpected outcomes.

## **P260**

### **VALIDATING A CHANGE FOR THE INFUSION OF FRESH ALLOGENEIC STEM CELLS**

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#### **Patient Education and Safety**

BMT nurses recognized the need to change the process for infusion of fresh stem cells during an allogeneic transplant. Our old process was to hang allogeneic stem cells on a primary line, eliminating the ability to rinse the bag after completion and increased the amount of times the central line was accessed, increasing the risk of CLABSI. The FACT Quality Handbook recommends that critical processes go through validation when "a key step or component has been changed, replaced, or modified." The purpose was to validate a practice change for the critical step of infusing non-cryopreserved (fresh) stem cell products. The validation included observing five infusions using the new process of hanging the product(s) via a secondary line on an infusion pump. The steps included in the validation are outlined below.

- The RN will prime a set of primary tubing (non-filtered) with Normal Saline (NS) and hang via an infusion pump.
- RN initiates the infusion of the cellular therapy product via a secondary line connected to the NS primary line on the infusion pump.
- When ending the cellular therapy product infusion, RN will assure product bag has infused entirely including contents of drip chamber.
- Rinse back performed twice after the completion of the infusion.
- Upon second completion, continue to infuse NS until line is clear.

Our evaluation included safety measures related to the product infusion and the clinical outcomes of the patients. We assessed the following:

- Safety related to hanging products on a secondary line and starting the pump
- The new procedure was easily understood, and the steps could be followed
- Patient outcome measures

Benefits of the change were multifactorial; 1) it allowed the RN to have autonomy in the critical thinking process 2) the process allowed the nurses to be an active participant in rewriting our standard of practice and 3) the patient received the full dose of stem cells available in the infusion bag without any discard or waste. One patient (20%) was diagnosed with CLABSI during the validation process. This was felt to be due to a myriad of clinical events happening around this time such as reaching nadir, severe mucosal barrier injury (existing ostomy), organ dysfunction with concerns for veno-occlusive disease.

## **P261**

### **LEVERAGING INTERPROFESSIONAL COLLABORATION TO IMPROVE DAILY SKIN CLEANSING COMPLIANCE IN AN ONCOLOGY ICU SETTING**

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#### **Coordination of Care**

Skin Cleansing with chlorhexidine gluconate (CHG) is an evidence-based practice to prevent hospital acquired infections (HAI) by reducing colonization of skin organisms. The patient population in an oncology ICU is at an increased risk of developing a HAI due to their immunocompromised and critically ill state.

During HAI event reviews, CHG skin cleansing was identified as one of the top trending opportunities in the ICU. The ICU team subsequently established a series of interventions to address compliance and prevent further HAIs. CHG is effective for up to 24 hours, so consistent application of the product is required for continuous skin protection. The ICU and Infection Prevention (IP) team prioritized CHG skin cleansing compliance due to the high-risk patient population. Together, a CHG compliance goal of 90% was pre-determined. IP historically shared ICU's CHG skin cleansing compliance on a monthly cadence, with compliance averaging between 60-70%. The ICU leadership team collaborated with frontline staff to understand the current workflow, drill-down on opportunities, and address the barriers identified. Based on the feedback, the team implemented a dedicated CHG skin cleansing time that was feasible for staff workflow, prioritized refusal escalation, rebranded terminology to avoid patient confusion, provided patients and family members with educational materials, and delegated CHG skin cleansing to patient care assistants (PCAs). This was rolled out as the first PCA quality improvement project and there was complete buy-in from the ancillary staff. Additionally, ICU leaders worked with IP to increase the CHG data sharing to weekly instead of monthly, resulting in increased awareness and improved progress tracking. This allowed for timely staff education and improved accountability. ICU set a CHG skin cleansing goal of 90% in an effort to improve compliance and decrease HAIs. The PCA CHG skin cleansing project started on July 1, 2021 and resulted in a significant sustained improvement of CHG skin cleansing compliance ranging between 84-92%. With the increase, there has been an improvement in the following Nurse Sensitive Indicators: 100 days without a Central Line Blood Stream Infections, outperformance of the Hospital Acquired Pressure Injury NDNQI benchmark for the last 4 quarters, and outperformance of the Catheter Associated Urinary Tract Infection NDNQI benchmark for 3 of the last 4 quarters. This collaboration is being replicated in other unit throughout the organization.

## **P262**

### **NEW STANDARDIZED THERAPY EDUCATION AND COUNSELING IMPROVES UNDERSTANDING OF SELF-MANAGEMENT OF TREATMENT SIDE EFFECTS IN THE GI ONCOLOGY POPULATION**

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#### **Patient Education and Safety**



Management of patients with gastrointestinal cancers has become increasingly complex. Traditionally, treatment was limited to cytotoxic chemotherapy however, targeted therapies and immunotherapies have emerged as first-line treatment options, leading to increased side effects. It is essential that patients understand how to recognize and manage side effects to avoid life-threatening complications. The purpose was to increase patient recognition and management of therapy side effects with newly developed, evidence-based education content in an outpatient gastrointestinal oncology clinic. Patient surveys (pre and post implementation) served as direct measures of the effectiveness of the educational intervention. Prior to project implementation, two gaps were identified in the current practice environment: a lack of standardized education and an instrument measuring patient knowledge of side effect management. Project goals, timeline, past strategies, and benefits of implementation were presented to project sponsors. A literature review identified updated guidelines and evidence-based recommendations. Standard patient education and counseling about self-management of side effects were implemented. A Likert-type scale survey was created using questions from Leuven Questionnaire for Patient Self-Care During Chemotherapy, Dodd's Self-Care Behavior Questionnaire, and the ONS' Patient Satisfaction Survey. Pre- and post-survey results were analyzed for comparison to assess the effectiveness of our education content. Survey responses were obtained from 55 patients over a six-week period. Mean total score increased from 8.77 to 12.52, demonstrating an average increase of 3.75. Patients on single therapy showed the highest mean improvement (+4.08), followed by doublet therapy (+3.82), and triplet (+3.34). There was an average improvement of +4.5 across all survey categories. The biggest increase in average score was "when to contact provider," with the post-implementation score demonstrating an average increase of +4.9 from the pre-implementation score. Standardized education improved patient understanding of side effects. Patients on triplet therapy demonstrated lower scores (+3.34), likely related to the complexity of treatment regimen. Findings from this project can be used to standardize resources to provide meaningful education, develop standardized pathways in oncology care, and encourage self-care behaviors in patients undergoing therapy. This approach is being considered in other oncology populations.

## **P263**

### **STANDARDIZATION OF MEDICATION**

## **ORDERING AND ADMINISTRATION IN RADIATION ONCOLOGY PROCEDURE ROOM**

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[Oncology Nursing Practice](#)

Northwell Health Department of Radiation Oncology provides comprehensive individualized care to the oncology patient. In order for our prostate cancer patients to receive radiation therapy they are required to undergo implantation of fiducial markers into their prostate gland and insertion of spaceOAR hydrogel between the prostate and rectum. The nurse plays a vital role throughout the procedure with the primary goal of management of patient's pain and anxiety. Standard practice requires the nurse to pre-medicate patients with oral Tylenol and EMLA cream applied to patient's perineum. The patient is also prescribed Valium 5mg either to be dispensed and administered in office by the RN or the prescription is sent to patient's pharmacy with instructions to bring to the office and take one hour prior to procedure. The lack of standardization, inconsistent ordering, and administration of Valium lead to a medication error. In this instance, the nurse was speaking with a Mandarin patient and despite utilizing our video translation services the patient did not understand when the RN asked if he took his Valium. The RN thought the patient did not take his Valium that was prescribed to an outside pharmacy, which was inaccurate. The RN administered 5mg of Valium. The patient received a total of 10mg Valium. This was identified within 1 minute after administration. RN informed MD and patient. Patient received monitoring after procedure and tolerated Valium well with no side effects. Re-evaluation of current state of practice completed with nurse manager, Attending Physician, and Chairman of the department. Literature review completed. Barriers of best practice identified by RN. Initiated new process to standardize ordering and administration of Valium to be done in the department on every patient. Education of practice change completed with MDs, ACPs and RNs. Lack of Standardization in ordering and administration of Valium identified as patient safety concern. Procedure nurse identified lack of role clarity between which patients were prescribed Valium to their personal pharmacy verse our department. Since initiation of practice change there have been no medication errors. Ensure we are providing best practice. Patient safety is our number one focus. Provide role clarity to our procedure nurses. Quality improvement initiative for our Physicians to standardize practice to order and administer Valium in our department is successful.

## P264

### THE EFFECTS OF LAVENDER AROMATHERAPY ON PREOPERATIVE ANXIOUSNESS IN THE SURGICAL ONCOLOGY POPULATION

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Many patients, specifically oncology patients, experience a general sense of worry. In addition, add a surgical procedure and the patient's anxiety has inadvertently intensified. Countless articles have highlighted preoperative anxiousness as a common occurrence within the healthcare system. Evidence has supported a great need for cost-effective, nonpharmacological approaches to assist with the management of this prevalent preoperative emotion. The purpose of the project was to evaluate the effects of lavender aromatherapy on preoperative anxiousness in the surgical oncology population. A pre and post-intervention survey, utilizing a visual facial anxiety scale (VFAS). This scale served as the tool to measure anxiousness pre and post-intervention. The numeric scale ranged from zero to five, with corresponding face depiction, measuring none, mild, mild-moderate, moderate, moderate-high, and highest levels. Lavender aromatherapy via an Elequil Aromatab®. There was a p value of 0.003 signifying there had been no underlying change in the VFAS scores, the probability that there would be changes as large as those seen in this sample due to "typical" variability in anxiousness is just 0.3%. This variability is very small, and therefore can conclude that there has been a statistically significant change in the anxiety scores following the aromatherapy intervention; the VFAS scores have decreased. Lavender aromatherapy had positive effects on preoperative anxiousness in the surgical oncology population. The results of the project were congruent with the vast amount of literature available assessing aromatherapy in healthcare. The results from the project should be considered in combination with current evidence-based literature to guide practice change. Hence additional practice improvement projects would be beneficial, including various populations, settings, and scents to build the scientific underpinnings needed for successful utilization of the evidence-supported intervention.

## P265

### BAR CODE MEDICATION ADMINISTRATION (BCMA) COMPLIANCE, A PROCESS IMPROVEMENT PROJECT IN MULTI-SITE HOSPITAL INFUSION CENTERS

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#### Oncology Nursing Practice

BCMA is an application for validation of medication administration that supports "real-time" documentation. Use of an electronic medication administration record with bar code scanning verifies the five rights of medication administration. The Institute for Safe Medication Practices (ISMP) recommends a compliance rate of >95%. ISMP also published New Best Practice 18: Maximize the use of barcode verification prior to medication and vaccine administration by expanding use beyond inpatient care areas: a) Specifically target clinical areas with an increased likelihood of a short or limited patient stay; b) Regularly review compliance and other metric data to assess utilization and effectiveness of this safety technology. At a large urban comprehensive cancer center, the focus of BCMA utilization has been on inpatient units. Initial implementation in infusion centers provided minimal training for staff and managers, had poorly defined expectations, and limited focus on chemotherapy. It was identified in 2021, that only two of ten infusion centers were meeting the hospital's BCMA compliance rate of >95%. The purpose was to identify barriers in BCMA compliance and achieve a goal of >95% in all ten infusion centers. An interdisciplinary team of nursing and pharmacy was convened to review data and implement strategies. Meetings were held with infusion nurses and managers to identify gaps and barriers. Nursing education was developed and provided regarding the expectation that BCMA to be utilized for all administered medications. Access, education, and coaching regarding the reports functionality of Allscripts, to pull unit-specific data on monthly basis, was provided to ambulatory managers. Managers met with nurses to review individual and aggregate monthly data. Sharing of monthly aggregate data for all centers was incorporated into the ambulatory nursing quality meeting. The average scan rate for infusion centers in January 2021 was 78% and in December 2022 was 96%. The oncology infusion centers demonstrated improved scan rates and nine out of ten sites achieved the goal of >95% scanning compliance. A multi-site ambulatory oncology infusion service BCMA compliance rate was improved over one year with simple and low cost intervention strategies that can be employed universally. With the implementation of monthly report of data, the infusion centers have been able to maintain 90% of sites with >95% BCMA compliance monthly. The success of

the project was due to the identification of the unique challenges and barriers to compliance and appropriate BCMA use.

## **P266**

### **FALL PREVENTION BY UTILIZING A DESIGNATED PHYSICAL THERAPIST IN BONE MARROW TRANSPLANT (BMT) PATIENTS**

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#### **Patient Education and Safety**

Bone Marrow Transplant (BMT) patients are often deconditioned and fatigued as part of their treatment, which puts these patients at higher risk of falls and falls with injury. Patient falls with injuries that occur in hospitals lead to negative outcomes such as, prolonged hospitalization, legal liability, and significantly increased healthcare costs. A 26-bed inpatient BMT unit at a large medical center in the midwestern United States saw a sharp increase in patient falls with injuries, a partnership with physical therapy and BMT multidisciplinary team was implemented as a quality improvement project. The goal of this project was to decrease patient falls with injury. This designated physical therapist partnership with the BMT multidisciplinary team was piloted to address the key causes contributing to BMT patient falls with injuries: lack of mobility planning for deconditioned patients, lack of staff confidence in using safe patient handling equipment, and lack of physical therapy presence on the BMT inpatient unit. Having a designated physical therapist allowed for increased presence and attendance at daily multidisciplinary rounds. This permitted progress updates and discussion regarding individual mobility plans which fostered a better understanding by the multidisciplinary team of mobility and safe patient handling needs of the complex BMT patients. To address the education gap with safe patient handling equipment, additional staff education was implemented and a "This is How I Move" sign was integrated into admission packets as a standardize tool posted inside the patient's room door to ensure all members of the patient care team are aware what safe patient handling equipment the patient needed to ambulate. The designated physical therapist pilot resulted in a decrease of 81.5% in patients fall with injury from the preintervention baseline. Since implementation, the BMT unit has outperformed the fall with injury benchmark for each subsequent quarter. This project illustrated that

safe patient handling equipment education, and a consistent physical therapy presence may be an important component of an effective fall with injury prevention program for BMT inpatient units. While mobility plans are crucial for patients, the execution by nursing staff is challenging secondary to the complex medical needs of the patients and staffing challenges. Future pilots could consider having a designated "Mobility Patient Care Assistant" to carry out mobility plans even on days physical therapy is not occurring.

## **P267**

### **LEAD THE SCENE AND KEEP IT GREEN: REDUCING PAPER USAGE IN SCHEDULE PLANNING BY UTILIZING DIGITAL TOOLS**

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#### **Professional Development**

Shift planning and staff scheduling often present challenges in the healthcare world. With the numerous and oftentimes unforeseen schedule changes (e.g., sick calls, family emergencies), paper schedules had become time consuming. Frustrations employees previously experienced with paper schedules included the need to manually erase errors and having to take turns making changes on the master schedule. Our objectives were to 1) eliminate paper usage in the department and 2) create a more accessible tool for schedule planning. Intervention: The Huddle Board, a digital electronic staffing schedule template, was created to enable management and staff to resolve shift planning and scheduling issues in real time. The template contains rows for personnel identification and columns for days of the week. The cells include descriptions of each staff member's shift for the specific day (e.g., "C" for "in clinic", "VAC" for "vacation", "R" for "remote") and are color-coded for easy recognition. The Huddle Board was uploaded to the department's Microsoft Teams channel for easy in-office as well as remote access. Using the Huddle Board has provided our management and staff a simplified way to plan, share, and organize staff shifts online. It has proven to be a great tool to electronically visualize tasks and efficiently plan for department needs. As it is uploaded online, links to the Huddle Board can be easily saved, viewed, and shared with other departments. In addition, it allows team members to collaborate and make edits without having to use paper. This also reduces the need for in-person interaction, which posed its own difficulty during the

COVID-19 crisis. We are living in the era of all things digital, which became even more apparent during the pandemic. Going green has many benefits, including a lighter carbon footprint for the business, reducing costs associated with purchasing paper and writing supplies, and a more efficient workplace for employees.

## P268

### **A QUALITY IMPROVEMENT INITIATIVE TO REDUCE HOSPITAL-ACQUIRED PRESSURE INJURIES (HAPI) IN AN ACUTE INPATIENT ONCOLOGY UNIT BY IMPLEMENTATION OF A PRESSURE INJURY PREVENTION BUNDLE (PIP) AND CHART AUDIT**

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Oncology patients are at high risk for development of HAPIs due to the severity of cancer diagnosis, chemotherapy, comorbidities, mobility limitation and nutrient loss related to hypermetabolism and neoplastic cachexia. From December 2021 to February 2022, three HAPIs including one deep tissue injury, one stage II, and one unstageable pressure injury (PI), occurred after admission in our acute inpatient oncology unit. Research studies support evidence-based practices that show HAPIs can be decreased significantly when bedside nurses apply a PIP bundle - a group of key elements of PIP, to high-risk patients. Various evidence also found a chart audit can promote compliance to the implementation of the PIP bundle. The aim of this project was to reduce HAPIs among our inpatient oncology patients through implementation of an evidence-based PIP bundle and use of chart audits to promote PIP bundle compliance. A PIP bundle was applied to patients at high risk for HAPI development. The PIP bundle consisted of ten key elements - skin assessment, risk assessment using the Braden Scale, support surface, activity management, nutrition management, patient and family education, moisture and incontinent management, reposition, documentation of intervention, and a chart audit. A chart audit form was used to ensure compliance with implementation of the PIP bundle. HAPIs incidences reduced PIs from Pre-Implementation 2.1 per 1,000 patient-day to 0.7 Post-Implementation 0.7 per 1,000 patient-day. The overall rates of compliance increased consistently from 91% in May, 92% in June, to 99% in July. Compliance was higher for applying Mapilax and a specialty bed than repositioning among high risk PI oncology patients. Repositioning

only reached a high of an 80% compliance in June the second month after implementation of the PIP bundle related to float-in nurses assigned. This is attributed to some floated-in nursing staff who were not included in the education of the implementation of the PIP bundle upon arriving on the unit for the day. Implementation of an evidence-based PIP bundle resulted in a considerable decrease in HAPIs on our unit. A chart audit for compliance use of the PIP bundle was vital to ensure consistency of our practice. Incorporating the mix of the PIP bundle and the chart audit into practice resulted in a significant decrease in HAPIs.

## P269

### **BRIDGING THE COMMUNICATION GAPS WITH HEARING IMPAIRED/NEWLY DIAGNOSED VESTIBULAR SCHWANNOMA PATIENTS DURING GAMMA KNIFE RADIOSURGERY**

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#### [Patient Education and Safety](#)

At the Center for Advanced Radiosurgery, patients with Acoustic Schwannomas are treated with Gamma Knife Radiosurgery. Between 2019 and 2020, 161 patients with acoustic schwannomas received Gamma Knife Radiosurgery. Often times these patients are diagnosed later in life and therefore struggle with communication because they lack alternative language skills such as sign language or lip reading. This was also compounded by the COVID-19 pandemic, adding a barrier posed by mask wearing. This led to miscommunication, frustration on the part of both patient and staff. In order to mitigate this we created a "Gamma Knife Hearing Impaired" tool. Newly diagnosed patients with schwannomas are not equipped with the skills normally used by those who are diagnosed at birth or earlier in life. Communication can become very daunting, with both staff members and patients wearing masks throughout the pandemic, communication became even more difficult. In order to give clear, concise instruction and patient education, the nurses created a Gamma Knife Hearing Impaired tool. The Gamma Knife Radiosurgery Hearing Impaired Script was created. A power point which mimics the workflow of a patient receiving Gamma Knife Radiosurgery was created. It was divided into separate packets to coincide with the various portions of the Gamma Knife procedure. Each section includes a blank page for free writing and a page which contains

a pain score. Utilizing our post procedure survey our patients found that the tool made their experience less confusing and decreased the delay in communication. We found that 100% of our patients found the tool to be helpful and easy to use. Effective communication between nurses and patients is a vital part of safe and effective nursing care. However, few health care professionals receive training on how to communicate with people who are hearing impaired. Our patients who we were able to utilize this tool, found it to be 100% helpful during their treatment. The Gamma knife Hearing Impaired Tool, allowed us to communicate more effectively and efficiently with our patients who have such communication barriers, thereby leading to increased patient satisfaction.

## **P270 CARING FOR THE WHOLE PERSON: ONCOLOGY CARE COORDINATORS INCREASE UTILIZATION OF PATIENT AND FAMILY SUPPORT PROGRAMS**

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### **Coordination of Care**

Cedars-Sinai Cancer serves over 11,000 people a year and offers holistic support through the Patient and Family Support Program (PFSP), which includes nutrition, social work (SW), palliative medicine, chaplaincy, rehabilitation, survivorship, and psychiatry. An innovative care coordination (CC) program embedded a SW and nurse (RN) CC within PFSP to identify and meet needs of higher-risk oncology patients through tracking, monitoring, outreach, and interdisciplinary collaboration. The purpose was to assess the unmet needs an oncology CC program embedded within PFSP fulfills for higher risk oncology patients. Patients with higher acuity needs were identified through health plan reporting, dashboards in the electronic medical record (EMR) providing alerts for patients with unmet needs, and referrals from providers. Preliminary data was captured on interdisciplinary collaboration and care coordination from a daily log kept by the coordinators and the EMR. Over 6 months (9/2021 to 2/2022), the PFSP CC team served 688 patients providing 1280 interventions. 22% of interventions involved coordination with other PFSP services; of which 54% was with palliative medicine, 36% with Clinical SW, and 18% resulted in new PFSP referrals (n=53). Significant coordination needs were noted outside of PFSP. 13% focused on

outside services including medical supplies and devices, home health, and community resources. 6% comprised of post-discharge calls by the RN. Care coordination such as appointment scheduling, assistance with prescriptions and communication with medical teams represented 9%, 1% and 11% of the interventions respectively. Overall, the top two needs fulfilled involved coordinating palliative medicine (12%) and communicating with medical teams (11%). PFSP CC assisted with increasing psycho-oncology referrals and coordinating needs with other PFSP services. Supporting transitions of care were significant through post discharge calls, interdisciplinary communication, and supporting DME and HH referrals. The greatest needs were collaborating with palliative medicine (12%) for services such as symptom management and goals of care conversations, more so than collaborating with oncology and other medical teams (11%), demonstrating the importance of coordinating palliative medicine services in the oncology population. The CC team leveraged existing relationships between PFSP providers and primary teams, allowing for timely care coordination. Future research should consider: 1) developing algorithms to better identify patients with higher acuity and unmet needs; 2) measuring impacts of CC services on care outcomes and healthcare utilization; 3) expanding the CC team to serve more of the patient population.

## **P271 STANDARDIZED GUIDELINES IN RESUMING TAXANE INFUSIONS AFTER A HYPERSENSITIVITY REACTION**

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### **Oncology Nursing Practice**

Hypersensitivity reactions (HSRs) to taxanes occur in upwards of 10% of patients and majority of reaction occur during first and second lifetime exposures. Symptoms range from mild (grade I), flushing, to (grade III), with anaphylaxis, despite standardized premedication. Currently there is no standard guidelines to identify patients for re-challenge and rate of administration when the infusion is resumed. The purpose was to provide standardized guidelines for the assessment and management of taxanes reactions, which can lead to criteria for re-challenge or discontinuation of taxanes infusions. Interventions were as follows:

- Patients reacting to taxanes on first or second exposure were included.
- Guidelines were provided to RN regarding rescue medications based on symptoms.



- Stopping or re-starting infusions rules were developed.
- Patients with a grade III reaction or reacted during their re-challenge, were referred to allergy for continuation of care with a desensitization protocol under the supervision of an allergist.

25 patients were enrolled. 22/25 (88%) patients meet criteria for re-challenged, 18/19 (94%) re-challenged, completed it successfully. One patient with a Grade III reaction, who did not meet criteria based on the severity of reaction, reacted during re-challenge. One patient, with a grade II reaction, developed a mild reaction during re-challenge. Rechallenge was safe and successful when applied to patients after low grade HSRs. Identifying grade of reaction, administration of appropriate rescue medications, along with specific rate of infusion titration during re-challenge allowed for a safe administration in 94% patients after experiencing HSRs. These guidelines will empower the bedside RN at the bedside to assess and treat patients with HSRs to taxanes. This will enhance safety and effective management of patients with HSRs to taxanes.

## P272

### AN EARLY EDUCATIONAL INTERVENTION TO ADDRESS FINANCIAL TOXICITY IN ADOLESCENT AND YOUNG ADULT (AYA) CANCER PATIENTS

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#### Survivorship

Adolescent and Young Adult (AYA) patients are defined to be those diagnosed with cancer between the ages of 15-39. It has been noted that cancer incidence in the AYA population has steadily increased over the last 25 years. Additionally, the cost of cancer care is rising, and financial toxicity is becoming a prevalent issue. Cancer-related hardship is disproportionately greater among AYAs than other age groups. Many resources are available to assist patients, but typically they are unaware and do not prioritize financial concerns when initially diagnosed. The purpose of this project was to survey AYA patients regarding their knowledge of the programs and resources available at an academic medical center and then implement and assess the impact of an interdisciplinary educational video that provided information on resources available at the center, local-

ly, and nationally. In this quality improvement project, a two-question survey to 27 AYA patients was provided to assess if they have received information about the AYA program, financial counseling, pharmacy support, and support services available at the cancer center and if they were aware of those services. AYA cancer patients receiving treatment at the infusion center were identified. Following the pre survey, an educational video regarding the services was presented, followed by a post video survey to the same 27 patients to assess satisfaction and knowledge gained. From the 27 patients that took the pre-survey, 52% responded that they have never received any information or services regarding the AYA program, financial counselors, the pharmacy, or social work. However, about 74% were aware of the services. After watching the video, 11% were neither satisfied or dissatisfied, 52% were somewhat satisfied, and 37% were extremely satisfied. Additionally, the one service most patients stated they would utilize moving forward would be social work. This quality improvement project illustrated that many AYA patients were aware of the services but did not seek to access to resources and education. By providing an easy way to deliver information regarding financial support and other resources providers can help mitigate the downstream issues this population may face during and after treatment. Developing ways to provide awareness of financial resources through technology will be a needed tool to help mitigate impact of financial issues. Future directions may be to develop an app as a tool.

## P273

### TELEHEALTH MONITORING A STRATEGY TO REDUCE HOSPITAL READMISSIONS FOR UNIVERSITY OF PENNSYLVANIA'S ONCOLOGY PATIENTS

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#### Symptom Management and Palliative Care

The healthcare concern is the issue of hospital readmission rates under 30 days for high-risk oncology patients. In 2010, the "Hospital Readmission Reduction Program" (HRRP) became law. In 2013, the HRRP readmission penalties went into effect. Since then, healthcare organizations have focused on strategies to prevent these readmissions. Readmission is preventable with an efficient, high-quality design. It is a known fact oncology patient outcomes improve with early intervention. However, many patients lack insurance

and primary care resulting in many new cancer diagnoses in the emergency room. In 2018, the University of Pennsylvania began to pilot telehealth as a strategy to prevent frequent readmissions. High-risk patients, including cancer patients, were identified for telehealth. Many of The University of Pennsylvania's emergency room patients were cancer patients. In addition to this discovery, the researchers and quality assurance analysts found that these patients became disconnected and lacked follow-up once discharged. One solution was to pilot telehealth monitoring. The healthcare organization spans six hospitals with over 3,000 patients discharged on home care. The pilot begins with pulling a census report on all patients transitioned to Penn Medicine at Home. Then, separating all the patients with the International Classification of Diseases (ICD) codes for cancers. Patients are provided internet-accessible telehealth equipment and assigned a virtual case manager to monitor the patient's vital sign metrics. The team collaborates with the oncology providers to prevent readmissions. The hope is that research and data will prove how much the program has benefitted patient outcomes and the organization's goals to lower the readmission rate below the national average of 26% and improve patient outcomes. The data looks promising; the readmission rates are slightly lower than before the program. The American Society of Clinical Oncology Journal found readmission rates for cancer patients discharged from oncologic medical care as high as 27%. The University of Pennsylvania found similar results. The telehealth service to oncology patients can improve health outcomes for all cancer patients, expand access to care for those who cannot travel, and avoid high healthcare costs through preventable readmissions.

## **P274 POST PROCEDURAL FOLLOW UP FOR PROSTATE CANCER PATIENTS**

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### **Patient Education and Safety**

Stereotactic Body Radiation Therapy (SBRT) is one of many treatment options for management of prostate cancer. Fiducial markers, small metal implants of various shapes, are placed in the prostate under guidance of a rectal ultrasound with a transperineal technique.

These fiducial markers enable tracking of prostate movement, rotation adjustment, inter- and intra-fraction translation during treatment. This minimally invasive procedure has a risk of bleeding, infection and pain post procedure. Education regarding care and self-care after placement of fiducial markers is critical and needs to be specific to each patient. Successful implantation and maintenance of fiducial markers is critical for patients receiving stereotactic body radiation to the prostate gland. The purpose was to ensure education regarding post-procedure management has been effective. Nurses in radiation oncology provide education to each patient regarding post procedure pain, possibility of bleeding from injection sites, signs and symptoms of infection, and importance of prescribed antibiotics. The RN staff call each fiducial patient one-day post procedure to review compliance of antibiotics, post procedure pain (0-10 pain scale), bleeding, and any signs of post-procedural infection. There have been 392 patients who have undergone fiducial marker placement since January 2022 to current. Follow up phone calls were placed to all 392 patients; 320 patients either answered or called back from a message left. These 320 patients reported very little post-procedure pain, all stated 100% compliance with antibiotics, 1% reported some bleeding that morning, and 0.2% reported cloudy urine but afebrile. Patient understanding and compliance with educational instructions given at the time of the fiducial marker insertion is an important factor for patient safety. By following up with the patients post procedure, instructions and guidelines can be reinforced to increase patient compliance, minimize present and future complications, and ultimately reduce any delays in treatment. Post procedure evaluation of the education provided the nurses with feedback regarding the education the patients receive. It also determined that patient satisfaction has improved since implementation. This also serves as a great tool to reinforce patient compliance and reduce negative outcomes.

## **P275 EATING WELL THROUGH CANCER**

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### **Patient Education and Safety**

Patients diagnosed with cancer often deal with sudden changes in their nutritional needs and dietary

recommendations. Maintaining a healthy weight and adequate nutrition can be challenging while managing the physical and emotional effects of the disease and treatment. Preliminary nutritional screening for malnutrition risk, and recognition of other dietary needs, is increasingly recognized as an essential standard of practice in quality oncology care. Historically our clinic offered a monthly in-person group class on cancer and nutrition, but it was discontinued due to poor attendance. A regional survey and individual interactions with oncology team members highlighted the patients' desire for more education regarding nutrition. The objectives for this project were to 1) evaluate existing processes and workflows for nutritional screening, referrals, and education for cancer patients; and 2) identify and correct gaps across the continuum. Key stakeholders partnered with a Registered Dietitian to 1) standardize the screening and referral process for newly diagnosed cancer patients; 2) update nutritional education to focus on prevention through survivorship. Nutritional screening was completed for all cancer diagnoses by nurse navigators and referrals made if criteria indicated higher risk for malnutrition. Referrals were mandatory for all patients with gastrointestinal or head and neck cancer diagnosis due to their high risk for nutritional complications. Due to the high demand for nutritional information from breast cancer patients, a workflow was initiated by the dietitian to proactively reach out via secure messaging, allowing patients to connect with their concerns before treatment. In addition, breast cancer nutritional handouts were updated, and an informational video with important nutrition highlights, was created. The availability of one-on-one support was found to more effective than a class for newly diagnosed patients. The Thrive Beyond Cancer Nutrition class was repurposed for cancer survivors and was well attended. To bring awareness to cancer prevention and educate patients on how to reduce both the incidence of cancer and mortality, the dietitian partnered with the Adult and Family Medicine Department and developed a Cooking and Nutrition for Cancer Prevention class. The need for nutritional education varies from diagnosis into treatment and beyond, and therefore should be addressed across the cancer continuum.

## **P276 GETTING BACK ON TRACK: DEVELOPMENT OF A "FAST TRACK" TRIAGE NURSE TO IMPROVE THROUGHPUT**

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### **Coordination of Care**

Outpatient cancer services have had a persistent demand due to the continued growth of the aging population, the increased number of cancer survivors and the shift in desire for outpatient services. The sustained growth of a large suburban ambulatory health care setting has resulted in increased infusion center wait times, subsequently causing dissatisfaction for patients and staff. Forecasting continued growth and the potential for ongoing inefficiencies, infusion leadership and the designated triage nurses took initiative to re-evaluate the infusion intake process and daily workflow. Interviews, surveys and meetings were conducted to determine root cause of patient dissatisfaction and waits. Press Ganey and electronic medical record data were reviewed and indicated that the "fast track" population often had significant wait times beyond their appointment duration. This population is comprised of patients whose treatment durations are scheduled for 20-minutes or less, such as port access appointments and injections. With these findings, a need for an improved daily workflow for the triage nurse, treating nurse, and patients was identified. Creative solutions were discussed in effort to help consider additional infusion roles to improve efficiency and better define role responsibilities between staff members. A pilot "fast track" triage nurse was initiated and would encompass a designated nurse to triage all 20-minute appointments. The responsibilities include: verifying orders are placed and signed, lab parameters are met, communication with ancillary departments for treatment clarification and ensuring appropriate scheduling. This role will sit alongside the primary triage nurse and intake clinical service associate, with the goal to improve efficiency. The pilot started with one designated fast track chair; due to unforeseen changes in patient needs and volume, a second fast track chair was implemented. Successful implementation of two fast track chairs resulted in reduced wait times for short treatments. The center will monitor progress by reviewing monthly Press Ganey's and electronic medical record data along with post implementation interviews. To ensure success, staff education and consistent adequate staffing will be implemented. Evaluation of success will be conducted through pre and post patient and staff surveys. By February 2023, the goal will be improved infusion wait times observed through electronic medical record and Press Ganey data.

## **P277 SUPPORTING CANCER PAIN MANAGEMENT**

## THROUGH STANDARD NURSING DOCUMENTATION IN AN AMBULATORY SETTING

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At an NCI-Designated Comprehensive Cancer ambulatory clinic, nurses identified a need to standardize pain assessment documentation when conducting telephone triage. This documentation is essential to support analgesic prescription refills, patient education, and safe coordination of care amongst the multidisciplinary team. The organization had existing documentation standards within a flowsheet that best supports inpatient and infusion care but not in a format that can be easily used for telephone triage as an ambulatory clinical note. The purpose was to develop pain assessment documentation standards for telephone triage in an ambulatory setting. A team of subject matter experts was formed including: Professional Practice Coordinators (unit-based clinic nurse experts), an Advanced Practice Nurse (APN), nurses experienced in telephone triage and pain management, and electronic health record (EHR) analyst. Regulatory requirements and evidence-based standards were used to inform a pain assessment template. Staff input was elicited to further refine the elements of the template. Components of the documentation template includes: pain assessment findings (location, severity, descriptors), pain interventions (pharmacologic, nonpharmacologic), side effects, limitations to activities of daily living, satisfaction with pain management plan, and opioid prescription activity by importing results from the Washington Prescription Monitoring Program (PMP). Telephone triage is performed at any time during a patient's treatment plan and requires unique documentation elements that synthesizes objective and subjective assessment findings to evaluate the effectiveness of a pain management plan. The multidisciplinary team prefers the clinical note format (in contrast to flowsheets) to communicate patient assessments obtained when conducting telephone triage. By seeking input from subject matter experts, the newly developed templated note captures a comprehensive picture of the impact of pain on a patient's activities of daily living, the effectiveness of the pain management plan, analgesic side effects, and safe opioid usage by importing data from the PMP. Additionally, the templated note cues staff to perform a comprehensive pain assessment and supports standardized communication amongst

the multidisciplinary care team. The development of a templated note specific to pain management for oncology patients in an ambulatory setting. This documentation is shared with the multidisciplinary team to inform safe opioid prescribing, patient education, and improving the pain management plan.

## P278 PPE FOR PCT'S

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A quality improvement project was conducted at San Antonio's Methodist Hospital's 8th floor, which encompasses three oncology units (BMT-bone marrow/stem cell transplant, BCU-blood cancer unit and 8 South-solid tumors) with a total of 57 inpatient beds. This project was geared towards the support of ancillary staff in how to properly handle excreta and linens of patients receiving chemotherapy through education. The driving force behind this quality improvement project was the realization that our Patient Care Technicians (PCT's) did not receive standardized training on the safe handling of excreta and linens contaminated with trace amounts of chemotherapy drugs. Anecdotally, patients receiving chemotherapy reported varied staff practices related to the handling of excreta. The outcome was measured by the implementation of an anonymous pre and post knowledge assessment tool. The pre-intervention survey demonstrated that this PCT group had a knowledge deficit regarding risks of chemotherapy exposure and safe handling practices. There were three in-service sessions provided including interactive scenarios, gaming strategies, and question and answer opportunities to teach the PCT's safe practices. Twenty-two staff members participated (18 target staff, two unit clerks, one nurse extern, and one float PCT). The project included a post-assessment survey to evaluate the effectiveness of the educational strategy. Post project evaluation data indicates that exposure knowledge improved from 68% to 78% pre and post in-service sessions, frequency of PPE use also improved when comparing pre and post in-service sessions data, and knowledge regarding recognition of cytotoxic drug policies and spill kit locations from pre-training scores improved to 100%. The initial assessment of change indicates that the paired (pre- and post- responses) from seven PCT's resulted in global improvement in scores related to safe handling and exposure knowledge. In addition to that, most participants expressed gratitude regarding the in-service

sessions. The desired outcome for this project was for PCT's working in Oncology Services to demonstrate an improvement in knowledge and safe handling practices for patients receiving chemotherapy. The long term desired outcomes were to improve the culture of safety and to standardize training for incoming PCT's and annual competency validation for current PCT's. The desired outcome was met. The long term outcomes will be measured by a six month post assessment survey and the effective implementation of standardized training for incoming PCT's and annual competency validation for Oncology Services PCT's.

## **P279**

### **CULTIVATING EQUITY, DIVERSITY, AND INCLUSION WITHIN A FREESTANDING SURGERY CENTER**

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#### **Psychosocial Dimensions of Care**

At Memorial Sloan Kettering Cancer Center (MSK), we are dedicated to providing quality patient care that is equitable, diverse and inclusive. We believe that our differences are an integral part of what allows our organization to provide the highest quality of care to our patients and their caregivers. Since the opening of MSK's Josie Robertson Surgery Center (JRSC) in 2015, our leadership team wanted to enhance inclusivity among the newly hired staff. A working group of ambassadors was assembled to learn how to navigate Equality, Diversity and Inclusion (ED&I) matters that may arise and promote allyship to the rest of JRSC. The ambassadors were comprised of a multidisciplinary and diverse group of employees which included healthcare providers, ancillary staff, environmental services, security, food and nutrition associates, plant operations, materials management, project coordinators and human resources. Our vision was to create an inclusive culture that listens and was richly representative of all people, all backgrounds, and all viewpoints. Our mission was to develop an ED&I environment by building leadership and organization capacity with commitment and competencies on all levels to embrace a culture of inclusion. As part of our program; guiding principles were

compiled which included, active listening, treating others with respect, creating an environment of trust, and embracing fun. Expectations and accountability of the ambassadors meant a 1-year commitment with 3-hour sessions taking place every other month. Over the course of the program; pre-work, and team action items were assigned and completed prior to the next session. Since the launch, JRSC has grown to view diversity in the broadest sense, and our areas of focus and support include race, ethnicity, cross-cultural diversity, age, gender identity and expression, sexual orientation, LGBTQ, religion, and persons with disabilities. We achieve this by engaging employees at all levels of our organization through educational workshops, celebration events, recognition displays and broad communication of various ED&I topics. We believe that the capability to actively listen with an open mind and respect each other and our patients drives our commitment to provide unparalleled patient care.

## **P280**

### **CALMING THE CHAOS: IMPLEMENTING COMMUNICATION STANDARDS WITHIN THE ELECTRONIC HEALTH RECORD (EHR)**

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#### **Coordination of Care**

An NCCN-designated comprehensive cancer center transitioned to a new electronic health record (EHR) system which included a newly established patient portal. This resulted in multiple new modes of communication between patients and the clinical team, as well as between clinicians. The existence of multiple new communication methods in the absence of standards led to confusion, miscommunication, staff fatigue and the potential for medical errors. During staff rounding, Professional Practice Coordinators (unit-based clinical resources) identified a need for standardization of electronic communication practices within the EHR. The purpose was to establish system-wide standards to streamline communication methods within the EHR and minimize communication errors between the multidisciplinary team and patients. Professional Practice Coordinators (PPCs) partnered with clinic leadership and EHR analysts to develop practice standards including recommended display settings, patient communication ownership and handoffs, acceptable communication methods between clinicians, response time agreements, management of unresolved patient



care issues, best practices to support a team nursing model, follow-up practices for unresolved issues and specific documentation requirements. Standards were reviewed and approved by subject matter experts and leadership. Implementation included rounding and demonstration with staff. These demonstrations later evolved into a required EHR class for new hire orientation, which transitioned from unit-based training to organization-wide training. Practices were readily adopted due to the product meeting the acute needs of staff for clarification and simplification of critical daily communication. Practices supported the team nursing model and resulted in a positive impact on provider communication. A decrease in communication-related patient safety events was also observed following implementation, as well as local reports from frontline staff of improved practice. A clinician website was developed to house these communication practices for easy reference by clinical staff and continues to track data of frequent visitation and utilization by staff.

## **P281 USING AN INTERACTIVE, REFLECTIVE TEACHING APPROACH TO REDUCE FALLS AND INCREASE ONCOLOGY SPECIFIC FALL KNOWLEDGE: A QUALITY SYMPOSIUM**

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Oncology Nursing Practice**

Patient falls remain a challenge in hospitals despite implementation of evidence-based fall prevention strategies. Oncology patients possess unique risk factors that increase fall and related injury risks; however, they often underestimate their fall risk and ignore safety precautions provided by staff. Increase in oncology specific knowledge relating to falls can enhance both patient and staff understanding of predictive risk factors, leading to implementation of fall prevention strategies that increase compliance and efficacy. The purpose of this project was to (a) reduce falls on two oncology units by using an interactive, reflective teaching format specific to the oncology population, (b) increase staff knowledge on patient fall perceptions, and oncology fall predictors, (c) increase staff confidence with providing fall education. Staff completed a pre and post survey to measure feelings towards current knowledge of falls and practice application confidence. All staff, regardless of role, were required to attend and participate in the Quality Symposium series. Fall data from both units presented various attributing factors, including patient demographics; time, day, and location of fall;

event occurring during fall; compliance to prevention strategies. Case data from unit falls were used to facilitate group sessions for Hester Davis scoring assessments. We compared the documentation from falls to practice exercise documentation. Discrepancies in scoring led to practice reflection and pinpointing rationale for potential variances in scores, thus highlighting the importance of patient engagement in assessment for fall risk scoring. Oncology specific risk factors, patient perceptions to fall prevention, oncology fall predictors, and effectiveness of patient tailored education were highlighted in the literature review. Post survey results revealed that use of a mandatory, interactive, and reflective teaching session significantly increased staff feelings of competence in fall risk scoring, understanding patient perceptions, knowledge of oncology fall predictors, and perceived ability to give population tailored fall education. Since intervention, there has been a 16.7% decrease in total falls and 50% decrease of injury related to fall compared to 2021 on one oncology unit; the second unit has had a 50% decrease in total falls, but no changes in incidence of injury related to fall. This education dissemination format may empower staff to identify barriers and solutions to other nurse sensitive indicators through multidisciplinary, reflective collaboration and consideration of oncology specific risk factors.

## **P282 RADIOPHARMACEUTICAL YELLOW ALERT CARD: RAISING AWARENESS OF HOME SAFETY MEASURES FOR PATIENTS, CAREGIVERS, AND HEALTH PROFESSIONALS**

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*Patient Education and Safety*

The introduction of precision cancer treatments combining a targeting compound with a therapeutic radioisotope has become a treatment option in many outpatient cancer centers. The increased awareness about radiation safety and proper disposal of radioactive waste in the community is of utmost importance to ensure the safety and well-being of the patients and the public. According to literature, long-term radiation exposure is associated with an increased risk of cancer. Nurses are the primary educator of patients and families. The Infusion Unit guided by the Nuclear Regulatory Commission, developed a "Yellow Alert Card" to educate patients, caregivers, and health care providers concerning home safety measures. This is a simple and efficient way to ensure that proper discharge instructions are reviewed. Patients are instructed to carry their

yellow card with them at all times. Educating patients and family members on home radiation safety ensures that every measure has been taken to provide comprehensive discharge planning. Presentation of the Yellow Alert Card would document the type of radioisotope administered including, the date and dose, to facilitate patient care and precautions to caregivers at home and in an emergency medical care setting. This study will provide the patient and their caregiver with the radiation precautions required at home post treatment. Patients and caregivers will have an individual education session on home radiation precautions on their first day of treatment. The yellow card will supplement the instructions. A post 24 hr. phone call survey will reinforce the education provided and a Likert scale will be used to evaluate its effectiveness. This project supports the importance of education in patients receiving Radiopharmaceuticals. Intervention such as a post-24-hour phone call provides reassurance that the patient and family understand the post radiation precautions. A wallet-size card allows easy access to information for the patient, family, and ED staff. The consequences of not following established radiation precautions can lead to harmful radioactive exposure to humans, the environment, and costly fines from regulatory agencies. With the emergence of precision medicine for cancer and the development of novel targeted radionuclide therapy, oncology nurses have a pivotal role in ensuring safe and effective treatment and discharge to the community. Radiation safety to the community is a critical element in this treatment modality.

## P283

### JOINING FORCES: INCLUSION OF CLINICAL STAFF IN PROJECT MANAGEMENT

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[Professional Development](#)

Healthcare practice and process improvements are often complex and benefit from the support of project management. There can be a disconnect between leadership, project managers, and clinical staff based on expectations, responsibilities, vision, and priorities within an organization. Many project managers utilize tools, such as the Lean process Going to Gemba to understand the clinical context of the work. This process is typically passive observation or discussions and does not fully account for the nuance or contextual implications of practice decisions. However, there are currently no standard project management roles requiring clinical experience within the American healthcare sys-

tem. The purpose was to bridge the gap between project managers, clinical staff, and facility decision-makers to support aligned expectations when working together on projects, by establishing a project management role requiring clinical experience. A Professional Practice Specialist role was created in the Clinical Projects Office at a large NCI designated cancer center. This role required RN licensure, active clinical experience, and project management skills. The role performs patient care 1 day a week to maintain clinical competency and performs project management for clinical operations-based projects the rest of the week. This role required robust project management training to support a clinician to apply their previously established skillset to project management work. This allows for a combination of clinical expertise and project management expertise. Integration of clinical expertise with project management resulted in several challenges. Differences include role-specific language, contextual perspectives, and differences in prioritization. Continuing to provide patient-facing care has not been determined to be necessary for this role and an additional assessment is required to validate the benefit. This new role optimizes career growth of the clinical staff and leverages the staff's experiential knowledge for facility decision-makers, allowing improved coordination and collaboration between project managers, clinical staff, and facility decision-makers. Dedicated time is essential to allow front-line staff to engage, inform, and champion clinical change, but additional opportunities exist for improving alignment across leadership, project management, and front-line staff. To build trust and align priorities, project management and frontline staff must be engaged early in the decision-making process to help inform, coordinate, and proactively support work and meaningful change.

## P284

### ONCOLOGY NURSE NAVIGATORS: TAKING CHARGE AND FORGING NEW PATHWAYS TO REDUCE TIME TO TREATMENT

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[Coordination of Care](#)

When time to treatment initiation (TTI) is 20 days or less, patients have improved survival rates of 10.5 months, and for each week of delay, patients have a 1.2-3.2% increase in mortality. Creating a process for patients before their medical oncology consult is imperative to ensure timely treatment. Care coordination of patients prior to their consult is often inconsistent.

TTI for lung cancer patients at a community hospital was determined to be 31 days for Quarters 1 and 2 of 2021. The purpose was to create an evidence-based clinical pathway improving patient throughput by leveraging the Oncology Nurse Navigators (ONN) to implement best practices for patients with newly diagnosed lung cancer, to decrease TTI. The Thoracic Disease Management Team reviewed the National Comprehensive Cancer Network guidelines in December 2021. A clinical pathway was constructed to optimize timely care coordination to be implemented by the ONN. Through collaboration with the referring provider and consulting physician, the ONN obtains appropriate referrals and orders to coordinate care as directed by the pathway. This includes facilitating tissue acquisition, positron emission tomography scans, magnetic resonance imaging of the brain, and molecular testing to be completed prior to the medical oncology consult. The ONN updates the patient with the orders received, coordinates timely appointments, addresses barriers to follow-up or changes in care coordination needs, and regularly communicates with the multidisciplinary team (MDT). Data was analyzed and compared between Quarters 1 and 2 of 2021 with the same Quarters of 2022. After implementation of the clinical pathway, there was a nearly 30% reduction in TTI; a decrease from 31 days to 23 days. Based on a survey of navigated patients conducted after the implementation of the clinical pathway, 88% of patients reported that the ONN expedited their care, and 96% reported an overall improved experience within the cancer center. Per the Press Ganey Survey conducted in 2022, nursing autonomy scores for ONNs was 4.83 compared to an overall organizational score of 3.9. Decreasing the amount of TTI in lung cancer patients is critical in positive patient outcomes. Utilizing the ONN as a part of the MDT has proven to decrease TTI while reflecting a high satisfaction rate among patients. The clinical pathway allowed the expansion to the ONNs scope of practice, therefore increasing feelings of autonomy.

## P285

### A MULTI-DISCIPLINARY APPROACH TO MANAGING FINANCIAL TOXICITY IN ONCOLOGY PATIENTS

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#### Psychosocial Dimensions of Care

After a cancer diagnosis, standard of care treatment options, which often include surgery, radiation, anti-cancer medications, and chemo/immunotherapy are discussed at length with the patient through an informed

consent process. The potential economic burden and its' accompanying psychological burden is seldom discussed up front. It is estimated that one-half of patients with a cancer diagnosis will experience financial toxicity at some point. Costs associated with care include co-payments, transportation, parking, reduced income from loss of employment, unplanned retirement, and uncovered treatment expenses with lack of medical coverage. Treatment costs have increased over time and patients are becoming more responsible for higher portions of insurance premiums, coinsurance, and co-payments. Routine screening and a multidisciplinary approach to management of financial toxicity for the oncology population is warranted. The purpose of this project was to create and implement an evidence-based clinical practice guideline for implementation of a financial toxicity screening component for the outpatient comprehensive cancer center setting. The guideline also assists to outline an evidence-based decision tree for the multidisciplinary management of a patient who screens for needing assistance. The Comprehensive Score of Financial Toxicity (COST) tool is a validated, patient-reported measure that was created in response to the urgent need to identify patients with economic needs outside of a clinical assessment. The screening tool is embedded in the EHR and assessed for every patient. Screening scores then guide clinical and support staff to provide available referrals and resources directly to those in need. Evaluation methods are based on project aims: to improve awareness of financial toxicity in a comprehensive cancer center, quickly identify patients at risk, and provide resources to lessen the economic threat on quality of life during disease management. Literature supports the need to properly identify patients at risk and provide appropriate support services across the continuum of care. Financial toxicity can have affects from diagnosis to years into survivorship and even indirectly affect family and/or dependents. Identification of at-risk patients who are struggling with economic effects of treatment is an essential early intervention. Patients indicate that they feel a lack of provider engagement when assessing financial status and report unmet needs in relation to their finances during treatment. Assessment for financial toxicity is dependent on a multidisciplinary approach across nurses, physicians, social workers, financial consultants, and navigators.

## P286

### SOLUTIONS FOR EXPANDING NON-LICENSED INFUSION IN THE SETTING OF USP800 STANDARDS

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#### **Coordination of Care**

Due to the current shift in reimbursement models geared towards lowering levels of cost and care, non-licensed infusion space is an acute healthcare need. In addition, ensuring that staff is protected from hazardous drugs that are compounded per USP800 standards in licensed space, while still allowing patients to receive their infusion in a lower cost non-licensed space, is a challenge that faced by many oncology leaders. The purpose of this project is twofold; Expanding non-licensed space to increase access to oncology care, while maintaining compliance with USP 800 standards. Creating a workflow that allows couriating hazardous drugs from a licensed site to a non-licensed site, accomplishes both purposes of this project. First, patients must get their labs drawn and weight checked two days business days prior. The patient's oncologist will need to allow for this 2 day gap between lab and treatment. Second, an infusion RN and pharmacist will need to check hazardous drug orders, labs and weight 1 day prior to ensure that treatment parameters are met. If the treatment parameters are met, the infusion RN will call the patient to confirm that the patient is not experiencing any symptoms that might delay their treatment. Once confirmed, the pharmacy will compound the drug in the USP800 licensed pharmacy the morning of treatment and then courier it to the non-licensed facility for administration. After implementing this workflow between licensed and non-licensed sites, that has been zero waste of drug over the initial 2 month period. Thirty-three individual doses of drugs have been couriered and delivered; translating to thirty-three patients that have also been appropriately rescheduled if lab parameters have not been met or they have reported treatment delaying symptoms. Increased volume will test this workflow, and some providers are hesitant to send patients receiving hazardous drugs to non-licensed facilities due to the gap in lab results. This option does offer a safe option for patients who receive insurance site of care denials and creates more infusion access in the health system.

#### **P287 IMPROVING RESUSCITATIVE SERVICES THROUGH A NURSING-LED QUALITY ASSURANCE PROCESS**

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#### **Patient Education and Safety**

Providing high-quality resuscitation in response to

cardiopulmonary arrest is an essential part of care in the oncology population, where patients are complex and unique. Continual evaluation of cardiopulmonary resuscitation (CPR) and code team response is integral to performance improvement for patient safety. A nurse-led quality assurance program was built to identify the specific populations undergoing CPR, evaluate key quality performance metrics related to CPR, and engage front line staff for overarching systems improvement. Every event is initially reviewed by a quality management nurse and data is collected in an institutional cardiac arrest registry that includes patients' cancer-specific demographics, code response data, key performance indicators for CPR, and staff feedback pertaining to each event. A nurse-led interdisciplinary debriefing of all medical codes is held biweekly to evaluate patient outcomes, changes in the population arresting, code team response, and BLS/ACLS algorithm adherence. Each review informs performance improvement projects and action plans that are made and reported through the hospital code committee. Since its inception in September 2019, 392 medical codes have been reviewed. A 9.1% increase in medical codes was identified from 2019 to 2021. Outcomes of reviews have included equipment maintenance issue identification and correction, identification of knowledge gaps and enhancement of code role training for staff, and facilities management changes. Collaboration with simulation training teams has resulted in targeted training for both inpatient and outpatient clinical sites. Current patient outcomes are on par with published outcomes for the general public with 60% of events achieving return of spontaneous circulation (ROSC) and 24% of patients achieving hospital discharge. This collection and review of cardiopulmonary resuscitation data for the oncology population has increased awareness across all clinical teams and is an important component of planning for the future of patient care as the lifespan of cancer patients increases.

#### **P288 IMPLEMENTATION OF A SALINE AND PULSATILE FLUSH PROCEDURE FOR CENTRAL VENOUS CATHETERS IN ADULT PATIENTS TO ELIMINATE HEPARIN AT A LARGE ACADEMIC MEDICAL CENTER: ARE YOU FOLLOWING THE EVIDENCE?**

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#### **Oncology Nursing Practice**

Heparin, used as a flush solution for central venous catheter (CVC) patency, has been the standard for

decades. Heparin use is associated with serious complications such as bleeding, allergic reactions, biofilm formation, and heparin-induced thrombocytopenia. Heparin is not superior compared to saline for reducing catheter occlusion. The purpose was to implement a saline and pulsatile flush procedure for adult patients with all types of CVCs to eliminate heparin use. Post completion of a large quality improvement project, completed in the oncology department to eliminate heparin, this large academic medical center used these outcomes and current evidence to further expand the project to all patient populations and all CVC line types. Nurses completed education including a pulsatile flush skills lab with return demonstration. Stakeholders in all departments were educated and CVC maintenance orders in the EMR were updated to remove heparin. Patients and caregivers were instructed about the new policy for CVC maintenance and those patients being discharged with a line performed a return demonstration of the pulsatile flush procedure. Homecare for this institution initiated the pulsatile flush protocol at the same time to ensure continuity of care for patients. Saline using pulsation while flushing CVCs in adult patients eliminated the use of heparin in this 1,100 bed hospital. The use of dec clotting agents remained unchanged post implementation of saline with pulsatile flush. Staff satisfaction increased and compliance with flush protocols improved. Successful implementation of a saline-only flush protocol requires focused education with a skills lab to ensure compliance with proper flush technique, proper frequency of flush, and prevention of catheter occlusion. Elimination of heparin simplifies CVC maintenance, reduces the risk of contaminated blood specimens, reduces the risk of adverse reactions for patients, and reduces health care costs.

## **P289** **IMPLEMENTATION OF AN ONCOLOGY** **NAVIGATION COUNCIL**

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**Coordination of Care**

Navigation throughout the continuum of care for the oncology patient is a key aspect in keeping the vulnerable cancer patient and their caregiver well informed, supported, and on an appropriate timeline for care as well as preventing patients from being lost to follow up. Professional oncology navigators have essential roles in retaining the patient within the treatment organization as well as promoting the system's additional testing

and treatment resources. Navigation for this population provides reduction in barriers, improved quality of care, and enhanced education. The development of an enterprise wide council for oncology navigation allows for seamless transitions from one specialist to another. The necessity for organization amongst the navigators at Sidney Kimmel Cancer Center (SKCC) Jefferson Health became evident as additional locations were added to the cancer center's quickly growing list of geographic locations. Currently the SKCC enterprise includes six cancer center locations throughout Southern New Jersey and Eastern Pennsylvania. Often the patients interact with providers from surgical, medical, and radiation oncology in separate locations and across state borders. Particularly for those patients receiving treatments at more than one location, optimizing communication and coordination between care teams is crucial. The incorporation of an Oncology Navigation Council at SKCC is instrumental in the organization and coordination of care for our cancer center patient population. At present, a comprehensive contact list has been established including Nurse Navigators, Patient Navigators, and Social Work providers which has been shared across the enterprise. Monthly council meetings have been held since March 2022 via Zoom. This has allowed the team to come together, interact, and foster relationships which equates to seamless transitions for our patients when moving from one center or provider to another. Resources are now centrally located and available to share for all navigation members via cloud-based shared files. Council ongoing topics include navigation sensitive projects, educational opportunities, and in person team building events. A data collection survey is being created to evaluate the impact and value of implementing an enterprise-wide council. Data results retrieved from the survey will be analyzed and used to direct the future state of the council. The navigation council has incorporated the Oncology Nursing Society (ONS) Standards of Professional Practice along with evidence-based processes to provide unification of patient navigation. This enterprise-wide navigation council promotes congruent, consistent coordination of care across SKCC.

## **P290** **WHAT YOU SEE IS NOT WHAT YOU GET: ONE** **HEALTH SYSTEM'S IMPROVEMENT OF PAIN** **ASSESSMENT IN THE AMBULATORY** **ONCOLOGY SETTING**

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#### **Oncology Nursing Practice**

Pain is one of the most common symptoms that cancer patients experience during the course of their treatment. Pain assessment and documentation are essential to adequately manage pain, which can optimize patients' activities of daily living and quality of life. The purpose of this project was to identify gaps in pain assessment and documentation to improve the tools used to document pain and rates of completed pain assessments. We reviewed current documentation practices across the health system and determined that several different flowsheets and tools were being used to document pain assessment. There was little consistency among flowsheet fields and documentation standards. To address this, we collaborated with frontline nurses to develop a new centralized pain assessment flowsheet group that was incorporated into two flowsheets that are used system wide. Documented data populates on both flowsheets regardless of which is used. The new assessment tool includes discrete fields for pain score, description, location, and intervention(s). Discussions around this quality improvement project began in quarter one of 2021, and the revisions were finalized and education efforts were completed by quarter three of 2021. Pre-intervention data for quarters three and four of 2020 demonstrated that 35% of patients had a pain assessment documented during their treatment visits and 65% did not. Post-intervention data collected for calendar year 2021 showed that the percentage of documented assessments increased to 83%, while the percentage of missing or incomplete documentation decreased to 17%. The data demonstrates a 48% increase in documented pain assessments. Evaluation of documentation gaps and improvement of pain documentation tools aids nurses in assessing, addressing, and re-evaluating patients' pain. It is critical to involve frontline nurses in consensus building and planning interventions related to their practice. We believe that including infusion nurses from the planning stages contributed to the significant increase in documentation rates. Additionally, a multifaceted education effort was crucial to the success of this project. Tip sheets were developed and dispersed, documentation requirements were reviewed during daily huddles and were incorporated into orientation, and improvement in pain score documentation was added to daily management boards as a quality goal. This project demonstrates that empowering and including frontline staff to work on solutions that impact their practice can positively influence patient experience, quality of care, and advance nursing practice.

## **P291**

### **IMPROVING PATIENT THROUGHPUT: IMPLEMENTATION OF A NURSE DRIVEN INTERDISCIPLINARY DISCHARGE CHECKLIST**

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#### **Coordination of Care**

Improving oncology patient admission efficacy is needed to optimize the patient experience, reduce costs, and stress on the interdisciplinary team. Delays in throughput negatively impact patient care and satisfaction, results in increased length of stay, and increase the likelihood of the need to transition care to an ED while waiting for a bed. Late admission times negatively impact the inpatient care team due to increased workloads during shift change and reductions in available providers and support personnel. One way to improve admission efficacy is to decrease wait times for admission to the inpatient unit. Modifying our approach to discharge was seen as an opportunity to impact throughput as timely discharge was impacting our ability to admit patients. This project aimed to determine if, in acute care oncology teams with high levels of late discharges, would the implementation of a nurse-led discharge checklist, when compared to current oncology service discharge practices, affect discharge times and improve interdisciplinary communication regarding patient discharge needs during morning team rounds. Implementation utilized the four-stage, Plan-Do-Study-Act approach. During planning the discharge checklist was created by reviewing common themes delaying discharges after 1400 and input from the interdisciplinary team. Identified checklist items were then translated onto workroom dry-erase boards in a table format. At the beginning of rounds, the unit charge nurse and attending lead the team through the discharge checklist for each patient planned for same-day discharge and anticipated discharge for the next day. Identified discharge needs, issues, outcomes, and updates were noted on the board. The nurse-led discharge checklist has proven to identify discharge barriers, assign ownership, and increase the number of safe discharges before 1400. Opportunities to increase interdisciplinary participation were recognized by decreasing the time needed to attend rounds. Charge nurses are now able to quickly identify and communicate actions needed to expedite patient discharge. Potential cost savings are recognized through reduced

length of stay and reduced transitions of care to multiple areas by improving same-day bed availability. Current results demonstrate the value of implementing a nurse-driven discharge checklist into interdisciplinary rounds. The project has expanded to include additional oncology services and work has begun to add a patient discharge checklist to our patient portal.

## P292

### **“DON’T BE BASIC”: PEER REVIEW TO PREVENT IV MEDICATION ADMINISTRATION ERRORS**

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#### **Oncology Nursing Practice**

All Outpatient Infusion Center (OIC) nurses are ONS chemotherapy/immunotherapy credentialed and have adopted USP800/ONS hazardous drug administration safety standards. The Outpatient Infusion Quality Team (OQT) seeks to identify risks associated with medication administration errors (MAE). A literature review determined common causes of MAE (knowledge, communication, staffing/support, and practice norms). In 2021, the OIC participated in the “Don’t Be Basic” campaign. The OQT created and communicated results of a monthly Alaris™ Guardrails™ (AG) report. The AG reports lacked specificity for individual nurse’s AG performance. In 2022, the OQT developed a peer review tool to capture individual variances and other gaps/barriers to the consistent use of the AG safety platform. This project’s goal was to decrease barriers and improve patient and employee safety through the consistent use of the AG safety platform with high-risk medications in the OIC. An objective peer review process tool was designed to monitor AG use during four common types of high-risk medication administration (single agent, multi-agent, titration, and blood transfusion). A select group of peer reviewers were educated on the tool and completed all peer reviews June through August 2022. Since 2021, the OIC improved and maintained the use of AG. Unlabeled/basic infusion type use decreased from 18.1% to 1.3%. Analysis of the 2022 project data identified one nurse unaware of the AG for blood transfusions, but no other major knowledge deficits. The project created a consistent communication method for AG changes, with 36 new medications and 23 safety modifications (filters, diluents, and HD labels) identified and built in the Oncology AG Library (OAGL). Changes to the OAGL increased use of the AG safety platform from 29.7% to 45.7%. Nursing

time was negatively impacted by OAGL medications listed inconsistently with trade or generic names. Eleven medications were standardized to generic, a safety measure consistent with the MAR. Inconsistent use of the AG safety platform was highest on Tuesdays, the busiest infusion day. This information was submitted to leadership for staffing matrix considerations. The root causes of MAE are multifactorial – the result of individual and system choices. This project reinforced the need to include individual nurses, system reports, and assistive technology to establish consistent, safe practice norms. This knowledge is essential as we adopt a new EHR, with challenges and opportunities in our continued pursuit of safety.

## P293

### **PROMOTING TIMELY DISCHARGE WORKFLOW STANDARDIZATION AND COLLABORATION BETWEEN ONCOLOGY UNIT AND DISCHARGE LOUNGE**

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#### **Coordination of Care**

Over the past 2 years, the Observational Unit Discharge Lounge (DCL) and the Oncology/Stem Cell Transplant (SCT) Unit at a university hospital have collaborated to increase patient throughput and facilitate timely discharge. Since conception, SCT utilization of the DCL has increased from an average 4.3 to 16.41 discharges per month, with an average of 14 discharges per month since January 2022. Despite increased DCL utilization, barriers to timely discharge still exist, including delays in medication delivery and teaching, dressing changes, blood transfusion, or transportation. Due to these delays, only 18% of patients on the SCT unit discharge by 2pm. To mitigate these barriers, the Agency for Healthcare Research and Quality (AHRQ) recommends institutions utilize a standardized process to assist nurses in identifying patients’ needs and barriers prior to day of discharge. The project aims to standardize the SCT discharge workflow for nurses and patients through application of the AHRQ IDEAL Discharge Planning Process, with the goal of facilitating discharge by 2pm and increased DCL utilization. Currently, there is no standardized workflow for SCT nurses to prepare patients

for discharge. The AHRQ IDEAL Discharge Planning Process engages patients and the multidisciplinary team in the discharge planning process.<sup>1</sup> Following the tool, nursing leadership, nurse practitioners, social work, and case management review patients who are anticipated to discharge within the next 1 to 2 days. Review takes place during a daily afternoon huddle. Based on the identified needs, the nursing staff will begin the discharge workflow to prepare for the anticipated discharges. This includes proactive central line dressing and cap changes and transfusion of blood products during the night prior to discharge, allowing for an earlier transfer to DCL once the discharge order is active the following day. The target goal is to increase the utilization of the DCL by 5%, while also increasing the amount of patients discharged from the SCT unit by 2pm. Patient throughput and DCL utilization have increased for the SCT unit; however, opportunities for standardization and improvement still exist. Daily collaboration and early planning amongst bedside nurses, the interdisciplinary team, and DCL are essential for meeting the goal of timely discharge and patient throughput.

## **P294 IMPLEMENTATION OF AN INTERDISCIPLINARY TEAM HUDDLE TO IMPROVE COORDINATION AND TRANSITIONS OF CARE IN BLOOD AND MARROW TRANSPLANT PATIENTS**

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### **Coordination of Care**

Blood and Marrow Transplants are most commonly used as a treatment for individuals with “cancers affecting the blood or system, such as leukemia, lymphoma, or multiple myeloma” (American Cancer Society, n.d.). These patients often have significant medical comorbidities, complicated psychosocial histories, and an increase in healthcare needs. To ensure transplantation is a safe and suitable option, patients must undergo extensive medical testing and a psychosocial evaluation. Transplant patients require the assistance of multiple interdisciplinary team members in the coordination of

their care. Some of the integral members of the transplant care team include physicians, advanced practice providers, nurses, coordinators, pharmacists, and social workers. The exchange of communication between healthcare providers is essential to providing safe and effective patient care. When patient handoff is omitted or incomplete, essential information is lost, and errors can occur. Ensuring a smooth transition of care for the transplant patient should be at the forefront of all healthcare workers. The members of the interdisciplinary team identified that the current handoff system was in need of improvement. The care team members worked together collaboratively to implement a weekly interdisciplinary huddle, facilitated through video conferencing software. During this huddle a standardized format was utilized to report essential patient information. This information was exchanged securely through a shared electronic document for team members to review ahead of the huddle. These weekly meetings have shown to be beneficial; providing time to review essential patient information with key stakeholders, identify patients at risk, and establish a care management plan that addresses the patient care concerns and needs. Benefits have included an increase in Good Catch reports by the care team, an increase in early referrals for patient and caregiver support services, and early engagement of community resources. The observed success of the updated huddle format can be attributed to the innovative communication strategies adopted by the interdisciplinary team members to ensure smooth transitions of care. The implementation of these focused handoff meetings has been shown to be successful in our institution and can be easily adopted by other institutions to improve the coordination of patient care.

## **P295 COLLABORATIVE TEAMWORK ON ADVANCED CARE PLANNING: HEALTH CARE PROXY**

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### **Coordination of Care**

All fifty states permit you to express your wishes as to medical treatment in terminal illness or injury situations, and to appoint someone to communicate for you in the event you cannot communicate for yourself. An advance directive allows patients to appoint health care

proxy (HCP) that allows health care providers follow the patients' wishes when they don't have the ability to make decisions themselves. Though the HCP form is voluntary in the U.S, the majority of the patient population in the United States is not familiar with concept of HCP and its documentation plays crucial role in medical decisions (Zhou, Bressler, Weinberg & Snow, 2022). In combination of Hematology Oncology and Infusion at Mount Sinai Morningside (MSM), the average percentage of patients who have Advanced Care Planning in the medical record was 52% in 2021. Patients in Infusion service were tracked by nursing staff, and health care proxy forms were obtained for most of the patients, but tracking and obtaining health care proxy in the Office Practice were challenging. By increasing the number of HCP, we understood that we would advance the standard and quality of patient care. To facilitate a collaborative team work, multidisciplinary team meeting was conducted to determine the best workflow for tracking and obtaining health care proxy in our Cancer Center. The multidisciplinary team included physicians (MDs), Nursing Practitioners (NPs), RNs, Medical Office Assistants (MOAs), social worker, and Patient Encounter Associates (PEAs). The workflow includes an Epic Alert, communication, obtaining HCP, and recording in Epic. Monthly, the workflow was reviewed and team was updated with the progression. With the collaborative teamwork on tracking and obtaining HCPs, MSM Hematology Oncology department was able to improve the percentage of ACP from 52% (average in 2021) to 76% by February 2022. In addition to the numeric improvement, the successful teamwork also benefited to empowering staff, understanding other roles, and building a trustworthy relationship. Healthcare proxy is essential for all ambulatory outpatient practices and not only for oncology infusion centers. Culturally adopted education on HCP is a key for patients with different cultural backgrounds. For those patients who have deferred or were not ready to fill the health care proxy form. We were still able to educate the importance and the purpose of health care proxy to the patients.

## P296

### WHY HEPARINIZE?

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*Oncology Nursing Practice*

A national shortage of heparin created problems with appropriate management of central venous access de-

vices. In early 2022, Becton Dickinson, Heparin manufacturing company, announced a national shortage of Heparin flushes due to increased demand and manufacturing constraints. The Cancer Center at Princeton Medical Center had limited supply of Heparin flushes that prompted nurses to use only 10 ml of NSS to flush central venous access devices after infusions and prior to port de-access. Registered nurses from Outpatient Infusion Center (OPI) randomly sampled 136 patients and recorded central venous access devices (CVAD) that had good blood return, loss of patency or thrombosis-occluded catheters. The results were identified by patients' medical record numbers and documented on an excel spreadsheet. Patients' ports were flushed with 0.9% saline solution after and prior to port de-access. At the next visit, patients' ports are analyzed for occlusions. Documentation included port flushed with 0.9% 10 ml saline solution, no occlusion noted; ports flushed with 0.9% 10 ml saline solution & Heparin flush, occlusion noted, no medical interventions required; and, port flushed with 0.9% normal saline solution and Heparin and occlusion noted that required thrombolytic agent, such as alteplase. Data were collected from 136-patients over a three-month period. 96% of patients flushed with 10 ml NSS had no port occlusions; 1.5% of patients flushed with 300 units/3 ml of Heparin flush, turned side-to-side, laid flat, and inhaled deeply, and blood return noted; and, 2.2% patients with occluded catheters required thrombolytic agent. Our study demonstrated the effectiveness of flushing only with normal saline using the SAS sequence, normal Saline flush (S), followed by drug/fluid Administration or blood sampling (A), followed by normal Saline flush (S) (Goossens, 2015). The use of the push-pause pulsatile technique is effective in enhancing the flushing effect. (INS, 2015, p.309). Heparin flush is a standard practice to maintain patency of CVADs. More studies are needed to prove Heparin flush necessity. Heparin may cause complications associated with heparin-induced thrombocytopenia, allergy, and risk for bleeding. Flushing CVADs with normal saline solution is also more cost effective (Mudgal et al., 2019). This QI initiative has engaged OPI nurses to work together to maintain catheter patency prevent catheter dysfunction and promote patient safety.

## P297

### STREAMLINING THE DOCUMENTATION OF TWO RN CHAIRSIDE CHECKS FOR ANTI-NEOPLASTIC MEDICATIONS ACROSS A LARGE HEALTH SYSTEM

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#### Oncology Nursing Practice

There are well established chemotherapy administration standards through ASCO/ONS which describe verification of the accuracy of the prescribed medication through the use of independent dual verification. Immediately before the initiation of each anti-neoplastic medication, two chemotherapy competent individuals will perform a final chairside check in the presence of the patient. The two caregivers are attesting that they have verified the patient by two identifiers, drug name, dose, rate, route, expiration date/time, appearance and physical integrity of the drugs and the rate on the infusion pump, when used. Previous modes of documenting these checks proved to be cumbersome and time consuming for the nursing teams. The purpose of our project was to identify a streamlined, approach to documentation that met all of the criteria for safe administration as outlined in the ASCO/ONS 2016 standards. Our electronic health record was noted to have capability for a dual signature function that could be used to document chairside checks. Implementation of this workflow would simplify the documentation process after verification creating efficiencies within the busy infusion areas. Our leadership teams put together an SBAR document to inform and obtain agreement from key stakeholders on this approach. The overall scope of this change would affect any location in which the specified drugs were given. This had the potential to affect inpatient and ambulatory areas in both oncology and non-oncology units. Our project plan defined in scope and out of scope medications and route. The final medication list included over 2500 drug records and ITD specialists in nursing and pharmacy configured these medications to fire a dual sign in the electronic MAR. When administering these medications, an attestation box will appear requiring confirmation that two nurses have verified the following: patient identification at the chairside/bedside, medication, dose, route, and time are correct to the original order. When applicable, the attestation will also confirm the rate set on the infusion pump and the correct tubing. The change was implemented August 2022 for all inpatient, ambulatory, adult and pediatric areas across all of our Ohio and Florida locations and replaced the previous dual verification (chairside check) process in the nursing flowsheet by

using “badge in-badge out” technology in the health record. Early reports from nursing teams are positive regarding the simplified approach to documenting these important safety checks.

## P298

### A COOL WAY TO COLLABORATE: ESTABLISHING AN INTERDISCIPLINARY WORKFLOW FOR SCALP COOLING PATIENTS

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#### Coordination of Care

Though the FDA released the approval of scalp cooling machines for patients at risk for chemotherapy-induced alopecia in 2015, many intricacies require consideration in their implementation in cancer care settings. The launch of a patient-driven scalp cooling program at a large institution highlighted the need for a customized workflow amongst multiple departments to provide safe and effective patient care. Three goals were identified in the authors' effort to establish this workflow: to develop a criteria-based decision-making algorithm to determine the suitability of scalp-cooling candidates; to streamline interdepartmental communication upon patient enrollment; and to specify tasks unique to roles of staff members involved. PDSA methodology was used in this project. To optimize the scalp cooling program's success, infusion nursing formed a task force consisting of a lead physician, nursing representatives from both the clinic and infusion teams, and practice team leaders to assist in scheduling logistics. The patient-driven nature of the program required the development of criteria guidelines to assist the enrolling physician in determining if a patient was an appropriate candidate for scalp cooling. Criteria include a patient's caregiver availability, patient cognitive ability, and patient motivation to actively participate in their role in the scalp cooling process as assessed by the physician. Once the decision was made for a patient to proceed with enrollment, a communication protocol involving clinic nurses, the scheduling team, and the chemo infusion department was established. The most effective interdisciplinary communication methods, based on the time-sensitivity of patient enrollment, were EMR-based messaging and scheduling notes. Shared calendar updates and white board communication were then utilized to alert the infusion nursing team of scheduled scalp cooling patient treatment



days. Finally, sequential tasks were assigned to each role in the process, from new patient visit to treatment day discharge. Accountability measures were reviewed with staff to ensure the workflow's smooth execution. One year following the introduction of a scalp cooling program at a major cancer center, a customized workflow to enhance the process has assisted greatly in the program's success and can serve as a model for implementation at additional sites. Criteria-based guidelines for enrollment, an interdisciplinary communication protocol, and team member role definitions are vital elements for cancer centers to recognize upon initiating scalp cooling programs.

## P299

### A COLLABORATIVE EFFORT TO IMPROVE APPROPRIATENESS AND TIMELINESS OF MOLECULAR MARKER IDENTIFICATION WITH THE DIAGNOSIS OF CANCER

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#### Coordination of Care

Increasingly targeted therapies have become mainstream as a treatment for many different types of cancers. Therefore, the identification of molecular markers is critical to the timely initiation of cancer treatment. The National Comprehensive Cancer Network (NCCN) Guidelines and the Oncology Nursing Society (ONS) Biomarker Database provide clinicians with recommendations for testing for various cancers. Operationalizing these guidelines and assessing our molecular marker program is important to providing sound patient care while allaying patient anxiety which could result when treatment initiation is delayed. The purpose of this collaborative project was to develop a protocol for those molecular markers which should be tested after particular cancers are known. In addition, further review addressed whether they were ordered reflexively per protocol and time to known results. In conjunction with an oncologist and pathologist, an advanced practice nurse developed a Solid Tumor Specialized Testing Protocol to be used by all pathologists. The goal was to ensure that appropriate molecular marker testing could begin immediately after a cancer diagnosis was made. After this protocol was in place, a quality review of all CT guided biopsy results was assessed over a 2 month period. Only those which resulted in the diagnosis of a solid tumor were evaluated. Data points included whether the protocol was followed, the number of days to diagnosis, biomarker testing results and number of days to final re-

sults. Thirty-six percent of specimens identified solid tumor cancers associated with NCCN approved biomarker testing. In all cases, specimens were sent to an outside lab for molecular marker testing on the day of diagnosis using the newly developed protocol with results accessible in 3-10 days. One result took 29 days, however, next generation sequencing (NGS) had been performed on previous tissue. These results indicate that biomarker testing was appropriate. Since this review, PDL-1 testing is now available in house which should further decrease turn around time. In addition, a project was instituted involving having a liquid biopsy drawn at the time of lung biopsy in the event there may be an insufficient quantity of tissue to perform biomarker testing. This represents an advanced practice nurse's role in being part of the solution to ensure that biomarker testing at her institution is meeting national guidelines and timely.

## P300

### THE IMPACT OF NAVIGATION ON UNDIAGNOSED ONCOLOGY PATIENTS FROM THE EMERGENCY DEPARTMENT

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#### Coordination of Care

The oncology nurse navigation (ONN) team at The Abramson Cancer Center (ACC) is both positioned and clinically sophisticated to navigate patients through the diagnostic phase of care, which can be complex often requiring nuanced clinical coordination, patient education, and support. The team identified an access barrier for Emergency Department (ED) patients who were recommended to follow up with medical oncology for a suspected cancer diagnosis. Some patients presenting to the ED face multiple disparities including limited access to primary care and other healthcare resources leaving them vulnerable to delays in care. Moreover, unintended system barriers like the subspecialty oncology care model make scheduling consultations difficult, further perpetuating health care disparities and delaying access to care. The purpose is to efficiently navigate patients from the ED to oncologic workup, providing a smoother transition in care for improved health equity. ONN provides early intervention to

address health care disparities such as timeliness to diagnosis and treatment, access to subspecialty care or clinical trials, symptom management, communication, education, financial assessment, and psychosocial support. In collaboration with ED leadership an order set was developed for nurse navigation, placed by the ED provider. Patients are then assigned to the appropriate disease specific navigator who completes an ONN assessment. The navigator has the clinical knowledge and autonomy to coordinate next steps for the workup such as facilitating scans, biopsies or consultations. Since implementation in April 2022, 57 patients have been navigated. Demographic information shows that 63% were Black, 26% White, 2% Asian, 9% Other. 42% had medical assistance or were uninsured. 60% of patients are from zip codes in our community. Navigation has successfully connected with 86% of patients within one business day from ED Discharge. 53% have since been diagnosed with cancer. The navigation team originally set out to impact access to an oncology workup for patients who present to the ED. A secondary outcome has been the recognition of impact on a vulnerable population and the ability to not only provide the clinical navigation support, but the early involvement of social work as a standard practice. These interventions are true to the scope of navigation as set out by Dr. Freeman: to address barriers to care for the most vulnerable. We continue to monitor the impact of this work on patient outcomes.

### **P301 INCORPORATING THE ROLE OF ONN TO INPATIENT ONCOLOGY SETTING**

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#### **Coordination of Care**

Incorporating the role of an outpatient oncology nurse navigator (ONN) has been proven and well documented to be effective in eliminating barriers to patient care and ensuring quality patient care. This research prompted the interest in having a dedicated ONN for the inpatient team. The transition of the oncology patient from inpatient to the outpatient setting can be an overwhelming experience for both patients and their families. Effective discharge planning requires a multidisciplinary team approach to ensure that all needs for home are met. The implementation of an inpatient ONN would help eliminate some of the barriers to discharge that lead to longer lengths of stay and higher

readmission rates. The purpose of the Inpatient ONN is to anticipate and secure outpatient needs for the oncology patients leaving the hospital. This role was appropriately modified for the inpatient setting to ensure a safer discharge, provide continuity of care, patient participation in shared decision making and advanced care planning through designation of a point person for additional questions, emotional support, and to clarify any misunderstandings. We identified the leukemia and lymphoma divisions as needing the most support for patients transitioning to the outpatient setting due to their sizable inpatient volume. At our large academic institution, the inpatient ONN participates in daily rounds with both the leukemia and lymphoma divisions with the APN/MD/RN/case managers assigned to the case. Once certain needs are identified, the ONN assists in ensuring a smooth transition to outpatient setting by encouraging communication between all parties and addressing any healthcare barriers that might impede timely and appropriate discharges. This role also helps build patient satisfaction and confidence in their team by providing patients and their families with a clear overview of what is expected once they leave the hospital. Specific measures that have likely improved since the incorporation of the inpatient ONN include length of stay, medication compliance and patient satisfaction. Incorporating the inpatient ONN to the inpatient team provides continuity of care and prioritizes patients' individual needs when transitioning to the outpatient setting. We believe that this role is essential for the inpatient multidisciplinary team and encourage large academic institutions to consider a dedicated inpatient ONN.

### **P302 EMPOWERING NURSES TO GET RID OF THE PEBBLE IN THEIR SHOE**

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#### **Oncology Nursing Practice**

Changes in staffing, availability of resources and higher patient acuity has caused staff to have more stress at work especially with pebbles that make their job harder. A pebble is the thing that wears you down overtime and depletes your motivation and energy. Therefore, staff needed a process to solve the minor work disruptors that eventually became barriers to their day. We needed a process that was staff driven based on their

input and ideas to remove these barriers. Staff need a way to communicate about the pebbles that bring them down and also the large boulders that can become unbearable. Empowering our staff to communicate when there are things in particular that really can be bothersome can lead to autonomy, transparency, resiliency and team building. A locked comment box was placed on the unit with a designed feedback slip. Staff were asked to identify the problem as well as the impact and rate the significant degree of the impact as a pebble or a boulder. One or more problems are identified monthly and posted on a dry erase wall in the nurse's station. All staff is encouraged to post ideas/solutions to the current problem. This has become a rapid improvement process for small pebbles. One rapid improvement was having an updated phone list by every work station. Staff was included on the input regarding what numbers would be posted. The problems that have been identified as boulders have been used to form work groups for quality improvement for the service line. One boulder was staff recognition. It was learned that time off was most important to staff. A scheduling committee was formed and worked on self-scheduling and PTO process for the unit. Another boulder was done on our falls initiatives using input from staff members on best ways to communicate this to patients. It is imperative that staff are involved with these processes as this impacts practice and care of oncology patients. By creating this culture of support, staff on our unit take a team approach to create initiatives and collaborate to make improvements. Incorporation of an accelerated, staff driven, improvement process encourages creative problem solving and interdisciplinary collaboration to improve the work environment, remove barriers and maximize outcomes.

### **P303 CLINICAL MONITORING CONCORDANCE WITH EVIDENCE-BASED GUIDELINES FOR PATIENTS DIAGNOSED WITH NON-SMALL CELL LUNG CANCER: A QUALITY IMPROVEMENT PROJECT**

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[Treatment Modalities](#)

Provider adherence to evidence-based clinical practice guidelines can improve the quality of patient care and

reduce practice variation. Guidelines also incorporate appraisal and synthesis of the latest research results to enhance the safety of cancer treatment. The aim of this quality improvement project was to evaluate provider adherence to the National Comprehensive Cancer Network (NCCN) guidelines for non-small cell lung cancer (NSCLC) at Lee Health Regional Cancer Center in Fort Myers, Florida. A retrospective chart review was conducted of 53 patients diagnosed with NSCLC and treated at Lee Health Regional Cancer Center in 2020 and 2021. Data were collected and evaluated by the thoracic nurse navigator to determine whether the initial diagnostic evaluation and first course of treatment were in concordance with NCCN guidelines based on the stage of the disease. An audit tool was used to capture pertinent information that included the patient's pathology, diagnostic imaging, laboratory tests and consultations. Oncologist (n=5) adherence to the NCCN guideline's recommended initial pretreatment diagnostic assessment was 85% and adherence to the NCCN recommendation for the first course of treatment was 100%. Non-adherence to the guideline's initial pretreatment diagnostic assessment was because 5 patients with metastatic disease and uncontrolled pain were not referred to palliative care for symptom management. Also, smoking cessation counselling or referral to smoking cessation classes were not offered to 3 patients who were smokers. Based on results of retrospective study, two following process improvement to support adherence to guidelines are recommended; best practice alert in electronic medical record (EMR) to alert providers to refer patients with uncontrolled pain to palliative care and automatic oncology nurse navigator (ONN) referral for newly diagnosed NSCLC patients. An ONN will guide patients through their cancer journey and will ensure that patients receive appropriate assessment, education and referrals. In addition, in 2022 the institution has implemented electronic smoking cessation referral in EMR. A follow up retrospective study will be conducted 6 months post implementation of the changes to reevaluate the adherence to the guidelines.

### **P304 EFFICACY OF SEPSIS SCREENING IN AN OUTPATIENT HEMATOLOGIC MALIGNANCIES CLINIC: FOLLOW-UP ON A QUALITY IMPROVEMENT PROJECT**

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[Coordination of Care](#)

Sepsis screening and implementation of a nurse-driven protocol to obtain blood cultures and lactate was initiated in 2014. Screening criteria was revised in 2015 and 2018 reflecting revised best practices and addressing low specificity with high costs and labor. Early and accurate screening can reduce the incidence of severe sepsis and shock. Re-evaluation of revised screening criteria ensures that sepsis is not missed by clinicians. The project evaluated accuracy of revised sepsis screening criteria in identifying patients admitted for possible sepsis from a hematologic malignancy/ transplant clinic. Data were collection between January – April 2021 and yielded 37 clinic admissions for possible infection. Screening criteria included: fever or hypothermia, tachypnea, dyspnea, hypotension, mental status changes, neutropenia and new organ dysfunction. Data were analyzed for sepsis screening results prior to admission, protocol deviations, and infectious outcomes of patients. There were 36 infection-related admissions; 6 individuals were undergoing primary chemotherapy, 27 peri-transplant, and 2 receiving CAR-T cells. Of these admissions, 13 (36%) screened negative on the day of admission, but six were admitted based upon clinician concern for infection. One of these patients had positive blood culture results for gram negative organisms. They had screened positive two previous days, and presented with myalgia, fatigue and chills. The other seven individuals developed fever after returning home. The total population experienced eight positive blood cultures (seven gram negative, one gram positive), and zero confirmed viral or fungal infections. Among confirmed infected individuals, five were undergoing transplant, and three receiving primary antineoplastic treatment. All gram-negative infections screened positive in the clinic, but the one individual with gram positive infection did not. Nurses broke protocol in two cases with missed blood lactate and one without mental status assessment. There was 5% incidence of severe sepsis at time of presentation, although an additional nine individuals became hypotensive within eight hours of admission and received intravenous fluids, and two required vasopressors. Overall incidence of severe sepsis was 25%, and 5% developed septic shock. Confirmed bacteremia occurred in four of individuals, two of whom also developed septic shock. In these data, the revised sepsis screening protocol is sensitive and specific for detection of infection in this hematologic malignancy population. All individuals were detected prior to onset of life-threatening sepsis. Sepsis screening criteria continue to demonstrate false positivity due to cytokine syndromes and therapy toxicities.

### P305

#### USE OF TECHNOLOGY TO IMPROVE COMMUNICATION & PATIENT FLOW FOR THE EMERGENCY MANAGEMENT OF PATIENTS IN THE AMBULATORY ONCOLOGY CARE SETTING

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##### Coordination of Care

Lack of coordinated communication between ambulatory care settings and local emergency departments (ED) has created fragmented handoff and delayed coordination of care. In addition, the absence of a structured rapid response team and emergency response workflow in the ambulatory care setting further complicated the care and transfer of these patients. The purpose of this project is to create a streamlined method of communication and improve the continuum of care. We implemented a structured approach to medical emergencies in oncological patients within the ambulatory care setting using a Rapid Response team. To further enhance the coordination of care for these patients, we collaborated with our local ED to create a Microsoft Teams chat including the ambulatory team, ED team, and the local hospital's logistics team. Microsoft Teams chat function was previously available; however, it was only minimally utilized prior to the COVID-19 pandemic. The pandemic created a need for the utilization of this vital technology, which has proven to be integral in streamlining communication between various groups at multiple sites within multifaceted healthcare organizations. Implementation of a structured Rapid Response Team and coordinated communication through the utilization of Microsoft Teams technology has resulted in improved communication in the setting of medical emergencies. There is an improvement in the communication regarding patient's backgrounds, current issues, plans of care, and contact information for the ED providers. Success has been evidenced by a reduction in ED wait times, expedited plans of care, improved patient handoff, reduced redundancy in testing, and improved staff and patient satisfaction. This change in workflow has decreased the risk of exposure to infection to an already immunocompromised patient population. Next steps are to expand this coordinated Microsoft Teams chat to other frequently utilized local emergency departments to

continue to provide the best collaborative cancer care to our patients.

### **P306** **IMPROVING NURSING ASSISTANTS’** **KNOWLEDGE, COMFORT AND** **COMMUNICATION WITH SAFE HANDLING** **PRECAUTIONS**

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#### **Oncology Nursing Practice**

Oncology nursing assistants (NAs) provide intimate personal care for cancer patients, increasing their risk for exposure to hazardous drugs in patients’ bodily fluid. Their knowledge and comfort with safe handling is paramount to protect staff and the environment from a potential hazardous drug contamination. However, since the COVID-19 pandemic, inpatient NAs at our National Cancer Institute (NCI) Designated Comprehensive Cancer Center only received safe handling education via our online education system. The COVID-related change in educating staff precipitated a knowledge gap for NAs with safe handling guidelines. Furthermore, nursing staff rarely communicated safe handling precautions for patients on oral medications or outpatient IV chemotherapy. The communication breakdown from nurses to NA placed an undue exposure risk to NAs, who are an integral part of the oncology care team. The purpose of this quality improvement project was to provide comprehensive didactic and hands-on training to NAs on our medical oncology unit to improve staff knowledge, comfort and communication with safe handling precautions. Eighteen NAs completed an anonymous survey to determine baseline knowledge of and comfort level with safe handling. The seven-question survey was developed by the unit safe handling champion and Clinical Nurse Specialist to assess knowledge, comfort and communication of safe handling precautions. Mandatory education included didactic and hands-on review of safe handling guidelines such as: communication of chemotherapy precautions; donning and doffing; proper disposal of wastes, contaminated linen and personal protective equipment; and chemotherapy spill response. NA comfort level was assessed using a single item Likert scale ranging from 1 (not at all comfortable) to 5 (very comfortable). NA communication was assessed using two multiple select questions addressing peer to peer

communication and precaution signs in rooms. Four questions assessed NA knowledge of location and use of PPE, waste disposal and duration of safe handling precautions. Three month reassessment showed comfort level improved from average 2.6 to 4.3. Thirty-eight percent of initial responders stated they never received communication about safe handling precautions, which decreased to 0% after education. NA knowledge also improved across all four questions. NAs are responsible for disposal of potentially contaminated bodily fluids. Lack of communication and knowledge of safe handling practices places undue exposure risk to staff and environment. Ensuring proper NA training improves engagement and empowers oncology nursing assistants to improve knowledge, communication and comfort with safe handling guidelines.

### **P307** **WHERE ARE THE WHATCHAMACALLITS?** **IMPROVING PATIENT CARE BY ENSURING** **THE RIGHT SUPPLIES ARE IN THE RIGHT** **PLACE**

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**Patient Education and Safety**

Oncology patients are a vulnerable population with unique needs. Nurses establish trust with these patients in many ways, including meeting their physical and self-care needs. At one institution, the lack of appropriate supplies nearby was impeding nursing’s ability to meet patients’ physical needs and curtailing available time to support patients’ emotional needs. This 100-bed oncology specialty hospital had an antiquated supply process: supply closets were stocked arbitrarily by non-clinical staff; PAR levels were determined by available space not need; re-stocking happened three times weekly. This resulted in nurses frequently lacking supplies and spending time going from unit to unit to obtain supplies for frequently performed bedside activities. Meanwhile, the closets were full of items the nurses didn’t use, leading to high levels of frustration. This initiative was developed to save nurses time by ensuring appropriate supplies were on hand nearby, allowing nurses more time for bedside care with patients, collaborating with interdisciplinary teams, and participating in shared governance. Nurses on the unit were surveyed to assess current satisfaction using a Likert scale and open-ended questions soliciting specific suggestions. Approximately 40% of nurses responded, expressing universal dissatisfaction with the current state and many ideas for improvement. Inventory



was done in one of three supply closets as a pilot. A nurse-driven list of needed supplies and appropriate PAR levels was developed, accounting for infrequent stocking. Unnecessary supplies were removed to create space. Supplies were arranged by function for ease of location. New labels with PAR numbers were placed in the closet. Nurses on the pilot unit have saved time and trips to Central Supply. The inventory list was shared with Central Supply staff, who stock the closets, resulting in improved communication and reduced frustration. Based on the early success of the pilot, the two other units on the floor will be arranged similarly. During the project, unit leadership brought the lack of an automated supply chain process to the executive team. Currently, the manual supply chain process is being reviewed and plans are in place for a modern, automated process. Nurses worked together to fix a broken process with limited tools. Here, they were able to optimize supply PAR levels and organize supply placement. This, in turn, left more time for nurses to practice nursing and led to broader hospital improvement.

### **P308**

#### **A QUALITY IMPROVEMENT PROJECT USING LEAN METHODOLOGY FOR PATIENT CENTRIC INFUSION SCHEDULING**

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#### **Coordination of Care**

Timely diagnosis and initiation of treatment is important in cancer care. Referral authorization and approval of medications and scheduling process often takes time that adds to the patient's anxiety. This contributed to patient, clinician, and staff dissatisfaction in a large National Cancer Institute (NCI) designated cancer center where 82% of staff rated scheduling process as "very inefficient". Review of metrics revealed an average scheduling lag of 40 days for treatment starts. The purpose was to implement a tailored infusion scheduling process for treatment initiation

to decrease average referral to treatment initiation lag from 40 days to 14 days. Process mapping of scheduling process was completed using lean methodology. Waste of time and value was identified at multiple levels. Gaps were translated to actionable items by focus groups and strategized using high-low impact method. Scheduling optimization taskforce was implemented with clinicians and operational leaders. Dashboard and benchmark for real time work queue monitoring was established for referral workflow and schedulers. A streamlined scheduling process was piloted for 2 months with three clinics with the goal of securing the right chair, for the right patient, at the right time. The scheduler processed all new treatment requests that included holding a chair in one of the infusion sites. A year into this quality project, significant improvements have been made related to scheduling efficiency, as well as patient and staff satisfaction. In August 2022, the average scheduling lag was down to 17 days. Authorization approval has increased from an average of 11 days at the start of the project, to currently an average of 4 days. Staff satisfaction results are pending currently. The rigorous authorization process due to excessive cost of oncology medications, continues to remain a barrier for patients in accessing timely treatment. A tailored lean approach to improve efficiencies at upstream and midstream generated a solid downstream scheduling process by redeeming lost value. Improved results have sustained since the implementation of new scheduling process. The innovative approach has been adopted as standard process at this cancer center that improved scheduling lag time significantly while ensuring treatments were authorized in a timely manner. The new process tailored to the clinical needs of individual patients and was successful in recovering time efficiency, which sets it apart from available infusion scheduling practice.

### **P309**

#### **OBTAINING INSURANCE AUTHORIZATION FOR CONDITIONING CHEMOTHERAPY AND HIGH-COST MEDICATIONS ASSOCIATED WITH STEM CELL TRANSPLANT**

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#### Coordination of Care

The Stem Cell Transplant and Cellular Therapy Nurse Coordinator plays a key role in ensuring all patients undergoing stem cell transplant (SCT) have insurance authorization prior to proceeding with transplant. A clinical packet requesting authorization is submitted to the patient's insurance carrier that includes a letter of medical necessity detailing the patient's specific transplant treatment plan and recommended conditioning regimen. In April 2022, the team noted that although the SCT conditioning regimen was included in the letter of medical necessity, these medications were not being approved in conjunction with the patient's SCT procedure, resulting in insurance denials for these high-cost medications. An internal review of the authorization request process revealed that a separate authorization would be required for approval of the conditioning chemotherapy and several other high-cost medications included in the patient's treatment plan, leading to a practice change when requesting SCT insurance authorization to ensure coverage of these medications. A Prior Authorization Request form was developed for use when requesting approval for allogeneic SCT in the inpatient setting that includes a list of the high-cost transplant medications and chemotherapies along with their drug code (J code). The nurse coordinator completes this form and submits it as part of the clinical packet to the insurance case manager for review and approval. A process for obtaining authorization for standard of care chemotherapy regimens in the outpatient setting was already established; therefore, it was decided that requests for the conditioning chemotherapy and high-cost medications being administered to autologous SCT patients in the Outpatient (OP) SCT Clinic would be integrated into this existing workflow. Once the nurse coordinator enters the patient's SCT treatment plan into the electronic medical record and schedules OP SCT Clinic appointments, the treatment plan drops into a work queue prompting the Prior Authorization team to request and obtain authorization. Since initiation of this practice change, the team has worked diligently to ensure approval for all aspects of the SCT treatment plan. Numerous authorizations for conditioning chemotherapy and high-cost medications that would have historically been missed, have successfully been obtained. Our practice change has provided a model for other facilities with similar practices. Ongoing assessment of post-transplant insurance claim denials is still required; however, a significant reduction in their frequency is expected because of this practice change.

### P310

#### THE USE OF DISCHARGE VIDEOS FOR DISCHARGE TEACHING ON THE BLOOD & MARROW TRANSPLANT UNIT

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#### Patient Education and Safety

Due to the pandemic and retirements, hospitals are currently experiencing a nursing shortage. In addition, a local Blood and Marrow Transplant (BMT) unit is experiencing an increase in the number of high-acuity patients. BMT patients undergo rigorous treatments and can be very tired and not feel well during their stay. Due to the patients' fatigue, it is not always possible for nurses to provide detailed discharge education. In addition, the discharge coordinators may coordinate appointments and supplies for the patient at home. Discharge teaching is crucial for our patients; they will be discharged home immunocompromised and with many medications. The patients are at high risk of developing infections and graft-versus-host disease. This intervention aimed to educate one BMT unit's patients on discharge teaching to help prevent infections, medications, restrictions needed, and follow-up appointments. Due to the need for discharge teaching and the time needed for patient education, discharge videos were developed to provide information on autologous and allogeneic transplants and what to expect after discharge. These videos are accessible to the patients using BMT unit-owned iPads and through the Cancer Center Site. The videos are approximately 10 minutes in length and are based on the type of transplant the patient had. The utilization of iPads for patient education has recently started. However, they have been found to be beneficial for the patients and staff. The patients have stated that it was nice to be available to watch a video, and the staff has said this has helped them with time management, and they do not feel rushed. Research has stated that using educational videos can be cost-effective, time-saving, patient and staff satisfying, & improved retention of education. Using video-assisted patient education decreased nurses' working time and improved satisfaction. The videos benefit patients because they use auditory and visual learning techniques. Pre-recorded videos also allow caregivers and patients to watch the videos on their own time.

### P311

#### REDUCING CHEMOTHERAPY ADMINISTRATION ERRORS IN A HEMATOLOGY/ONCOLOGY UNIT

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#### Oncology Nursing Practice

Nurses are the last barrier to detecting errors in the chemotherapy administration process. Currently, nurses on a 39-bed inpatient hematology/oncology unit with hematopoietic stem cell transplant patients perform a chemotherapy time-out before administering chemotherapy or commencing a chemotherapy or transplant regimen, as presented at Congress in 2019. Nurses typically perform this time-out in the hallway or at the nurses' station but frequently experience interruptions such as call lights, phone calls, and conversations from others in the hallway. This project aims to reduce chemotherapy administration errors by implementing a "Do Not Disturb Zone." The Iowa Evidence-Based Practice Model was used to develop and implement a Do Not Disturb Zone. Errors were reported via MIDAS, and the reports were used to measure the number of chemotherapy administration errors. A pre- and post-implementation survey were distributed via Microsoft Forms to qualitatively measure nurses' perceptions of interruptions and distractions on chemotherapy safety, as well as conducting two focus groups. Reflecting the current evidence around changing the environment a nurse performs a critical task in, a Do Not Disturb Zone was implemented in a centralized, quiet location for nurses to perform the chemotherapy time-out. Pre- and post-implementation surveys had a response rate of 72%. The compliance rate was approximately 70%, with an overall decrease in the number of chemotherapy administration errors in the twelve weeks compared to previous quarters. There was no statistical significance; however, the specific aims of the project were achieved and there was clinical significance as the errors are low volume, high risk, and preventing even just one, prevents significant patient harm or death.

### **P312 USING MICROSOFT LISTS TO GENERATE AN AUTOMATED WORK QUEUE FOR IMMUNOMODULATORY DRUGS REFILL REQUESTS THAT STREAMLINES INTERDISCIPLINARY COMMUNICATION BETWEEN REGISTERED NURSES AND ADVANCED PRACTICE PROVIDERS FOR A LARGE MULTIPLE MYELOMA PRACTICE**

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#### Coordination of Care

In an ambulatory multiple myeloma clinic covering 10

physicians that sends approximately 4,000 Immunomodulatory drugs (IMiDs) refills per year by a team of 8 Advanced Practice Providers (APPs) and 10 Registered Nurses (RNs), communication alignment for refill requests was challenging due to high medication refill volume and multiple modalities of communication. Original workflow included a RN receiving medication refill notification via EPIC In Basket. The RN would add the refill request to a manually managed shared Excel sheet for APPs to review or send an email to all APPs. Historically, there were 1-3 patient complaints per month regarding missed IMiD refills as a result of missed communication. The purpose was to create a digitized and automated work queue to streamline interdisciplinary communication of IMiD refill requests while simultaneously tracking and collecting data for auditing, analysis, administrative and managerial purposes. After initial process analysis, building rapport and buy-in with end-users, Microsoft Lists (a PHI-secure platform) was used to replicate previous Excel workflow with new automated features. The project was independent of an IT team. Design and implementation of the beta version was achieved in one day. Changes, updates and full user integration was achieved in one week. The platform tracks patient identifiers, physician, provider sending refill, medication, dose, quantity, direction, notes, authorization number, pharmacy, date added, date modified and total medications sent, not approved or pending. Since implementation, data entry has been self-sustained by end-users with 100% participation occurring on a daily basis. Patient complaints of missed refills have been at 0% post implementation. The RNs and APPs using the platform will be surveyed on ease of usability at 6 months. Data captured will be used for administrative and management purposes. This medication refill platform was a no-cost, secure, quick and effective implementation that improved workflow and streamlined communication between RNs and APPs. The platform tracks and collects data that can be used for additional research and process improvement initiatives. This platform can be replicated in other oncology practices. Innovative use of technology and informatics provided the opportunity for nurses to facilitate communication alignment between RNs and providers, improved coordination of patient care and track metrics for future analysis and process improvement; which can lead to improved patient medication adherence, decreased medication errors and increased patient satisfaction.

### **P313 INITIATING ELECTRONIC, STANDARDIZED,**

## AND STRUCTURED HANDOFF FOR NURSES IN THE OUTPATIENT SETTING

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[Coordination of Care](#)

Handoff is the transfer and acceptance of patient care responsibility achieved through effective communication. Patient-specific information moves from one caregiver to another, to ensure continuity and safety. Ineffective handoffs negatively impact patient safety, patient and staff satisfaction, adverse events, missed care, and treatment delays. The purpose was to decrease adverse events associated with ineffective handoff and improve nurse satisfaction by implementing a structured, electronic handoff process, inclusive of a standardized handoff report in an outpatient setting. This quality improvement project implemented an evidence-based, electronic, structured, handoff process inclusive of an electronic report. A pre-implementation survey was created to identify intra-organization patient transitions and assess nurse satisfaction. Adverse event reports for handoff were also evaluated. After implementing the new handoff process a repeat satisfaction survey was sent to the nursing staff, event data was analyzed and use reports were initiated. Sustainability was assessed six months after implementation. Initiating this structured and standardized handoff process, inclusive of identifying the transitions requiring handoff, led to an increase in nurse satisfaction with statistical significance  $p < .001$  in 87.5% of the satisfaction categories, a 42% decrease in adverse events associated with handoff and an increase in the use of a structured handoff process. Literature and regulatory bodies drove the structure and most of the components of the handoff report, however with a paucity of literature dedicated to outpatient, inter-institutional handoff, a representative group of outpatient nurses, or superusers, input was invaluable. They provided insight into current practice, helped to define the transitions, and tested the reliability of the report. The outpatient transitions were identified through their survey responses which included the moments where handoff was currently being used and the event reports which represented the potential and actual breakdowns with handoff. Identifying these transitions led to the recommendations about when handoff must happen which included shift to shift, coverage, and transfer of patient care which were appreciated in the literature, but also

identified were interventions that would be completed by another nurse and same day appointments where the patient has a physical, psychosocial, or behavioral event during the first visit. These two handoff moments are unique to the outpatient clinics. Structuring outpatient handoff for defined care transitions, utilizing a report derived from the electronic medical record can improve patient safety and increase nurse satisfaction.

## P314

### BACK TO BASICS: AN INTERDISCIPLINARY COLLABORATION TO ALLEVIATE CAPACITY ISSUES

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#### [Coordination of Care](#)

Our unit experienced delays in room turnovers from discharges to admissions. The increased turnaround time was creating barriers to getting our patient's admitted so their chemo regimen could be started. There was a clear disconnect between nursing and environmental staff (EVS) as to ownership of tasks which led to an increase in delays and frustration by patients and staff. Capacity issues have made it difficult to have rooms readily available for scheduled chemo admits. As a collaborative partnership with EVS and nursing, we did a root cause analysis to determine the issues. When we do have an open bed, it can take up to 1 hour to 1.5 hours for a room to get cleaned. As a collaborative effort, we have decided to bring the environmental staff and nursing staff together to see what the problems are and what we can do as a unit to help get the rooms cleaned faster to enhance a faster time of getting an admission in. There was a committee comprised of leadership, nursing staff, and environmental staff. We sent out a survey that helped gain knowledge about task ownership at discharge. The results were somewhat surprising. There was a gap of knowledge regarding items that were not being cleaned because there was not ownership regarding who would clean it. After this, we decided to go through each point and see what EVS would be willing to take ownership of and what nursing would. This was agreed upon by everyone involved. The average turnaround clean time prior to this initiative was an average of 65.46 minutes from notification to clean the room down to 58.50 minutes. That's a reduction of 10.6 % per room. This additional time allows for EVS staff members to dedicate more time to clean

patient rooms and help drive outcomes. It also allows our patients to start their treatment in a timely fashion. It is noted that when each area took ownership, there was less finger pointing and more of people working together to get the task completed. It was a joint effort and each group would go above and beyond when able and a true work family came out of it. A creative approach looking at untapped areas of opportunity has resulted in earlier patient placement.

### **P315 EFFECTIVE CARE FOR MALNUTRITION IN PATIENTS WITH CANCER IN A COMMUNITY CANCER CENTER**

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#### **Coordination of Care**

Malnutrition affects 40% to 80% of patients with cancer and can negatively affect treatment tolerance and increase morbidity and mortality. The American Society of Clinical Oncology and the European Society of Clinical Nutrition and Metabolism developed evidence-based guidelines to address malnutrition in cancer care. Nursing can play an integral role within the interdisciplinary team, implementing these best practice elements and improving effective care for patients at risk for malnutrition. The quality improvement project (QIP) was implemented at MultiCare Regional Cancer Center's Puyallup location, one of four regional cancer centers within MultiCare Health System. An initial chart audit (N = 30) revealed that only 20% of eligible patients were screened routinely for malnutrition. Only seven percent of at-risk patients were referred to a registered dietitian, and zero patients diagnosed with malnutrition were assigned a corresponding ICD-10 code. The project aimed to increase effective care for patients with cancer at risk for malnutrition by 45% in 90 days. The Plan-Do-Study-Act (PDSA) model for quality improvement is a systematic methodology employed to implement and test change. Four PDSA cycles were conducted over eight weeks to test iterative changes throughout this QIP. Four core interventions drove the QIP, including standardized use of the Malnutrition Screening Tool (MST), implementation of an education and shared decision-making tool (ESDMT), application of an effective care checklist comprised of six evidence-based criteria for at-risk patients (ECC), and a team engagement plan. Over eight weeks of implementation, nursing staff screened 1,068 (94.1%) patients by MST and 85 (7.9%) patients screened at

risk. The team engaged the ESDMT for 27 (41.5%) eligible patients. The ECC captured 63 (100%) eligible patients, with a composite effective care score of 71% (N = 63) one week after completion of implementation. Team knowledge and communication survey responses increased from 3.0 to 4.4 (on a Likert scale of 5). Effective care reached 76.5% during the second week of Cycle 4, 31.5% above the initial project aim of 45%. The MST screening increased by 185% overall. Standardized screening for malnutrition and intervention for those at risk using rapid-cycle PDSA can improve effective care with evidence-based resources while increasing interdisciplinary communication and efficacy.

### **P316 IMPLEMENTING A CHART REVIEW NURSE TO PREVENT ORDER DELAYS AND OPTIMIZE CARE**

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#### **Oncology Nursing Practice**

At an NCI designated Cancer Center quaternary ambulatory oncology infusion center serving a large population of high acuity patients, gaps were identified in order verification and implementation. These order issues held multiple implications for patient satisfaction, space utilization, appropriate nurse assignments, and the ability to support urgent same day add-ons. The purpose was to design a quality improvement (QI) process for infusion nurse chart review to minimize same day urgent order delays, optimize staff resources, efficient bay utilization and increase patient satisfaction. A work group including a supervisor, nurse educators, and front-line infusion nurses convened to evaluate a nurse's chart review processes prior to the infusion appointment. Utilizing QI principles, standard work of the chart review process was established. A pre-review (1-2 business days) for the unit's infusion patients was instituted by a chart review nurse to facilitate timely resolution of issues for unclear medication or lab orders, inappropriate treatment dates, and missing attending and pharmacy verifications. A color-coded system for order status was assigned and used as a communication tool between chart review nurses and the treating infusion nurse. Clear communication pathways were established in collaboration with pharmacists and providers to ensure expectations for timely resolution of order issues. A resource binder and job aids were created and 1:1 training was completed by the nursing supervisor and department educator with the



goal of “train the trainer” for future trainings. Evaluation of this nurse QI process found proactive anticipatory review of orders 1-2 business days ahead reduced urgent disruptions in patient care. Continuity of care is enhanced when clinical care teams can address order issues, rather than on-call covering providers. Establishing communication pathways for the chart review nurse is key to this role and is essential in nurse satisfaction and ultimately improving patient outcomes.

### **P317** **IMPROVING RETURN OF PATIENT OWN** **MEDICATIONS UPON DISCHARGE FROM AN** **INPATIENT ONCOLOGY UNIT**

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#### **Oncology Nursing Practice**

Non-formulary oral antineoplastic agents administered during hospitalization are identified, stored, and dispensed by pharmacy as “Patient’s Own Medication” (POM). POM are then returned to patients upon discharge for continuation of treatment in the outpatient setting. A triplicate paper form was historically utilized for POM documentation, which created several inefficiencies. Despite safeguards, patients would discharge without POM returned because paper documentation was either misplaced, scanned as an untitled document in the electronic medical record (EMR), or not properly transferred with the patient’s chart. Inconsistent pharmacy notification of anticipated discharge created an additional barrier to POM return. As insurance payers authorize these specialty medications monthly, POM may not be refilled until 30 days have passed from initial dispense date, causing potential interruption of critical oncology treatment if POM is not returned upon discharge. Patients may also incur unnecessary out-of-pocket expenses for an emergent supply. Nursing, pharmacy, and informatics collaborated to develop an electronic notification process to improve documentation and efficiency of POM return upon discharge. EMR enhancements occurred in two phases. The nursing enhancement leveraged alerts and current nursing workflows. Upon admission, nurses utilize an admission navigator to complete all necessary documentation. If the patient has POM, the nurse selects “yes” under “Medications sent to Pharmacy”,

which triggers an additional row to indicate the satellite pharmacy where POM was delivered. Identifying the location allowed nursing to find POM, even if the patient transferred units prior to discharging. When a discharge order is placed, the “yes” answer also triggers a new alert on the After Visit Summary, prompting the nurse to return POM to the patient before discharge. A second EMR enhancement allows pharmacy to see active patient discharge orders in their in-basket activity. This message prompts the pharmacist to check for POM and proactively notify the nurse to return the POM to the patient prior to discharge. POM waste data will be analyzed using an event reporting system and pharmacy documentation. Staff and patient satisfaction with the new process will also be measured. EMR enhancement also exhibited POM return improvements for the pulmonary hypertension department, suggesting the process created further workflow efficiencies outside of the oncology population. Partnerships between nursing, pharmacy, and informatics improves patient-centered discharge and ensures patients can continue treatment without interruption in therapy or unnecessary added cost.

### **P318** **MULTICOMPONENT INTERVENTION TO** **SUCCESSFULLY REDUCE CENTRAL LINE** **ASSOCIATED BLOOD INFECTION (CLABSI)** **RATES AMONG HEMATOLOGY/BMT** **PATIENTS**

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#### **Patient Education and Safety**

Hematologic cancer patients face prolonged hospitalization, frequent high-intensity chemotherapy regimens, and placement of invasive central lines to receive treatments and bone/blood marrow transplants (BMT). These factors lead to immunosuppression and contribute to an increased rates of infections such as CLABSIs in this population. On average, 250,000 CLABSIs occur annually in the U.S., with an average cost of \$50,000 per infection and average mortality rate of 10-40%. CLABSI prevention measures remain a priority in clinical care to reduce harm and improve patient outcomes in

hematologic cancer patients. The purpose of this quality improvement study was to implement a multicomponent, multilevel intervention (healthcare team/nurse and patient) to reduce CLABSI rates at Markey Cancer Center's (MCCs) BMT unit. The intervention was implemented from July 2021 to June 2022. The intervention components included: 1) daily completion of WildCard audits on patients with central lines by staff nurses with peer compliance checks for line necessity, dressing compliance, IV tubing/luer-lock cap compliance, and daily chlorhexidine gluconate (CHG) treatment, 2) replacing CHG shower-mounted soap (use is patient reported) with CHG wipes (use monitored by staff), 3) posted patient education sheet on CHG use in every room, and 4) audits of nurse documentation of luer-lock cap change prior to blood culture collection. Quarterly CLABSI rates and high line days were monitored and compared to institutional and national data through the National Database of Nursing Quality Indicators (NDNQI) reports. The number of CLABSI's were reduced from 13 (rate of 1.5) in FY 2021 to 1 in FY 2022 (rate of 0.1). In comparison, the number of CLABSI occurrences reduced from 111 (rate of 1.2) in FY 2021 to 99 (rate of 1.1) across UK HealthCare. MCC's BMT unit is currently outperforming national academic NDNQI benchmarks based on Magnet criteria for CLABSI rates (2.69 per 1000 line days). This translates to a cost avoidance of approximately \$600,000 in CLABSI treatment and associated costs. This targeted, multi-component project significantly reduced CLABSI events on MCC's BMT unit and should be further investigated to determine long-term impact and applicability to future no-harm projects. The efficacy and impact of CLABSI prevention audits and patient education tools should be further investigated to determine their significance in reducing CLABSI rates and improving patient safety.

### **P319 LEVERAGING A QI FRAMEWORK FOR AMBULATORY ONCOLOGY SCHEDULING WORKFLOW INNOVATION**

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**Coordination of Care**

As care increases in volume and complexity in ambulatory oncology, needs related to ambulatory oncology scheduling, access, and capacity have grown increas-

ingly complex. Navigating the complex choreography of ambulatory oncology scheduling can feel like a game of "Tetris," attempting same day coordination for a high volume of multidisciplinary appointments per day, such as phlebotomy appointments, provider visits, and infusion treatments, and sometimes additional visits for imaging or concurrent radiation. To address growing concerns about ambulatory oncology scheduling, access, and capacity, the leadership team at a large academic NCI and NCCN designated Cancer Center in Philadelphia assembled a large group of interdisciplinary stakeholders to form the Cancer Service Line (CSL) and Infusion Scheduling Improvement Committee. The purpose of this committee is to address scheduling related challenges and opportunities across phlebotomy, clinic, and infusion areas through developing, testing, and evaluating proposed solutions. The CSL-Infusion Scheduling Committee followed a formal A3 Quality Improvement methodology, identifying this problem statement: The current scheduling processes for the PCAM CSL Shared Services Clinics (SSC) and Infusion lead to inaccuracies, inefficiencies, rework, and lack of standardized communication, resulting in patient delays and safety issues, as well as negative impacts to patient, provider, and staff satisfaction. To address the problem, the committee completed extensive current state analysis from quantitative data and standardized qualitative observations across roles and practice settings. Next, the team completed root cause analyses were completed. To address root causes, the committee formed eight sub-committees to address specific components of the problem, including: standardizing electronic patient tracking, standardizing communication pathways, streamlining concurrent chemoradiation scheduling, improving checkout/scheduling flow, optimizing provider scheduling, standardizing infusion scheduling education, re-evaluating central line blood draw services, and assessing same day coordinated visit availability. Evaluation of success metrics will include: reduction in scheduling errors, reduction in scheduling re-work/appointment alterations, adherence to standardized communication pathways, scheduling process compliance, and improvements to patient satisfaction, patient flow, and infusion access and capacity. Scheduling, access, and capacity will only become more problematic as care continues to shift to ambulatory oncology, so this multidisciplinary stakeholder committee provides a forward thinking framework for addressing current and future challenges through structured quality improvement efforts.

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## RADIATION

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### P320

#### RADIATION ONCOLOGY NURSING EDUCATION

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##### Oncology Nursing Practice

Radiation Oncology is a complex specialty requiring nurses to maintain a broad spectrum of current, evidence-based knowledge in order to ensure safe and high quality patient and family care. Nursing knowledge and expertise across domains including clinical, psychosocial and supportive care, and up-to-date skills, is critical to patient outcomes. Plan/Develop/Implement education opportunities that increase RadOnc nursing knowledge, practice and skills through streamlining concepts for new staff while highlighting updates in content to seasoned staff. Establish and monitor measures for nursing education/practice initiatives to lead continuous improvement. Evaluate innovative approaches to improve nursing education opportunities (e.g. VR, real-time and asynchronous virtual education) leveraging existing and new technologies. Evaluate, understand, and lead initiatives to improve nursing satisfaction responses. Goal Statement (SMART):

- Plan/Develop/Implement education opportunities that increase RadOnc nursing knowledge, practice and skills through streamlining concepts for new staff while highlighting updates in content to seasoned staff..
- Establish and monitor measures for nursing education/practice initiatives to lead continuous improvement.
- Evaluate innovative approaches to improve nursing education opportunities (e.g. VR, real-time and asynchronous virtual education) leveraging existing and new technologies.
- Evaluate, understand, and lead initiatives to improve nursing satisfaction responses.

Metrics were as follows:

- Plan, develop and implement four to six accredited nursing education programs annually.
- Achieve 50% attendance by RadOnc nurses/MAs/CSAs across locations annually.
- Increase number of new professionally certi-

fied nurses, and number of nurses maintaining certification.

- Increase number of nurses advancing through the clinical ladder.
- Increase number of nurses with certificates.
- Respond to nursing practice/knowledge needs via Rad Onc specific nursing activities and education, providing nursing NPDCs.

### P321

#### IMPROVING PATIENT COMPLIANCE WITH THE USE OF VAGINAL DILATORS FOLLOWING THE COMPLETION OF PELVIC RADIATION

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##### Patient Education and Safety

Pelvic radiation is a common treatment for endometrial cancer that can cause formation of scar tissue and adhesions after completion of radiation. These adhesions and scar tissue may cause vaginal spotting and stenosis. Vaginal dilators are utilized to help prevent adhesions/scar tissue. Discussion with patients at their follow up visits revealed that they are not fully understanding the significance of dilator compliance. With increased dilator compliance, vaginal health may improve. This includes a decrease in the formation of adhesions and less difficulty with sexual activity and vaginal exams. During the final radiation treatment visit, each patient receives a vaginal dilator and education from the nurse. This education involves discussing how to use the dilator correctly, and the importance of using the dilator on a regular basis. The patient is also sent home with an educational handout for them to review as needed. Two weeks after that final treatment the nurse calls the patient to remind them to start using the dilator the day before her scheduled visit in one week. Any questions or concerns are addressed during that phone call. During the three week follow up, first time use of the dilator is discussed, education is reinforced, and all questions answered. During their 6 month follow up, patients receive a validated dilator compliance questionnaire that informs the health care team whether or not patients have a good understanding and are compliant with the dilator. From the months of June through August of 2022, a total of 74 patients were seen for follow up after pelvic radiation. Seventeen out of seventy-four (17/74) were found to be non-compliant with using their dilator. Our pre intervention percentage

of compliance is 77%. Our goal after initiating this intervention is 90% compliance. Patient education provided by radiation oncology nurses is an integral part of ensuring patients comprehend the importance of using their vaginal dilator. Improving patient education and following up with questionnaires will lead to increased compliance with vaginal dilator use.

### **P322 BENEFITS AND FEASIBILITY OF A DEDICATED HEAD AND NECK CANCER PROGRAM AT A COMMUNITY CANCER CENTER**

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#### **Coordination of Care**

With patients seeking care closer to home, community cancer centers must meet the demands of caring for complex cancer patients with limited resources. A need was identified within the Radiation Oncology Center at our Community Cancer Center to provide comprehensive care for Head and Neck Cancer patients. This initiative required buy-in and devoted time from Hospital teams (Registered Dietitian (RD), Inpatient Speech Pathologists (SP)) for implementation. Full multidisciplinary support services were implemented in September 2019. A retrospective review of Head and Neck patients referred to Radiation Oncology, Stage 1 & 2, receiving concurrent chemoradiation from March 2019 to August 2021 was performed to evaluate patient outcomes prior to and after implementation (N=18). Processes implemented included dedicated education sessions provided by the Radiation Oncology RN at time of consultation regarding the importance and benefit of SP and RD services during their cancer treatment. Referrals were then placed to each specialty. Patient education continued at each weekly Radiation visit to aid in overall compliance. Multidisciplinary communication took place via EMR communication, as well as during newly initiated Head and Neck Chart Rounds. Of the 18 patients, four patients were treated prior to implementation (January to August 2019). 3

of the 4 (75%) patients required a Radiation treatment break related to unmet nutrition needs, zero (0%) patients met with a RD and 2 (50%) patients underwent SP Evaluation. Two (50%) patients required PEG tube placement. Nine patients were treated after initiative implementation. Zero patients required a Radiation treatment break related to unmet nutrition needs, 4 (44%) patients met with a RD and 8 patients (89%) underwent SP Evaluation. Three (33%) patients required PEG tube placement. Not only did we see a significant decrease in treatment breaks due to unmet nutritional needs, but with the incorporation of this initiative, our team was able to streamline ambulatory PEG tube placement to avoid unnecessary hospitalizations, with 50% admitted for PEG placement prior to initiative and 0% requiring a hospital stay following implementation. In conclusion, the implementation of a dedicated head and neck program is feasible at a community hospital when appropriate resources are available to ensure positive patient outcomes and preserve hospital resources. Barriers identified during our initiative included availability of hospital team members (RD services during COVID-19 peaks) and patients opting to forgo additional visits with multidisciplinary team members.

### **P323 AMBULATORY TECHNICIAN RESIDENCY**

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#### **Professional Development**

Over the last three years, there has been an observed breakdown in structure and flow amongst radiation oncology ambulatory technicians. The technicians have been oriented to their role by several different preceptors, generating inconsistent skill sets and varying degrees of knowledge. The technicians are often not given the same instructions/directives and often do tasks differently from each another, or not at all. Nursing discovered that the scope of practice was not being met to its full potential and that policies and procedures were not being upheld to the highest standards, leading to delays in patient care, safety concerns, and an overall lack of professional accountability. A residency program was developed to create a venue for technicians to dedicate time to education and learning. This time is also where nurses and technicians can come together as a team and safely talk about the role, identify needs/barriers, and have an open discussion. Nurse managers (NM) identified the inconsistencies in skills amongst technicians. A survey was distributed to radiation

oncology nursing staff to identify gaps/needs in skills among ambulatory technicians. 86.4% of the the overall response indicated that nursing would benefit from having an ambulatory technician residency program to help streamline education and scope of practice. A nurse was identified to lead the program and in-class discussions. The NM and service educator gathered data and created course content. A list of ideas/topics for future sessions was created. Technicians completed an anonymous 3-2-1 evaluation in which they identified three things they learned and/or liked about the class, two things about the topic they would like to know more about, and one suggested topic for future discussion. After each session, evaluations were reviewed, which helped determine future topics. Overall, the technicians appreciated the education and dedicated time. Questions asked during class often generated good discussion and ideas for future sessions. The staff attending remotely were able to participate, though it could be challenging to hear and/or see at times. In the future, we will use the classroom computer and large projector screen to capture the classroom experience better. This project is innovative because it uses a traditional nurse residency experience and expands it to an assistive role.

### **P324 STANDARDIZING PATIENT EDUCATION ACROSS DIVERSE AMBULATORY RADIATION ONCOLOGY SETTINGS**

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[Patient Education and Safety](#)

At NCI-designated comprehensive cancer with three separate radiation oncology clinic locations, nursing staff identified the need for alignment of patient education materials. Historically, each location had their own versions of patient education documents with varying content and recommendations. A team of staff nurses, nursing leadership, an advanced practice nurse, and the patient education program manager determined it was feasible to have a single set of radiation oncology patient education documents for all three locations. The purpose was to standardize and align radiation oncol-

ogy patient education with current best practices and information across radiation oncology locations. A literature review of evidence-based resources (e.g., American Society for Radiation Oncology [ASTRO], Oncology Nursing Society [ONS], National Cancer Institute [NCI], UpToDate®) was conducted by nursing staff to gather and validate content for updated education materials. Plain language best practices, such as analyzing white space, word choice, and sentence length, were integrated to increase readability and maximize content delivery. Documents were consolidated from 29 to 16. The updated documents were then evaluated and sent for review and approval by subject matter experts, including nurses, therapists, and radiation oncologists at each clinic site. Taking a multidisciplinary and multi-site approach allowed us to improve patient education materials for radiation oncology patients. The group faced challenges, such as differing provider practices and a belief that each practice was so unique that consolidation was not possible. To overcome these challenges, the team identified similarities, shared current evidence with providers at each location, and updated the documents, while allowing for variation as appropriate. New materials were introduced and readily adopted by nursing staff at all three clinics. It is essential that organizations provide consistent, evidence-based patient education across diverse ambulatory radiation oncology settings. This endeavor increased the quality of education materials, created a collaborative environment across sites, and optimized outcomes for patient learning.

### **P325 RADIATION ONCOLOGY NURSING: A NURSING FOCUSED VIEW OF CARE FOR CANCER PATIENTS RECEIVING RADIATION TREATMENT**

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[Oncology Nursing Practice](#)

The Radiation Oncology nurses identified a need for in-services to educate all Oncology staff about caring for patients undergoing radiation therapy. This need was verified after discussing the project with the Professional Practice Leader of the Oncology nursing department. It was hypothesized that establishing in-services tailored to Oncology staff caring for patients undergoing radiation therapy will increase interdisciplinary collaboration and improve continuum of care for our patients during the course of their cancer treatment. Through a performance improvement approach, in-services were provided to inpatient Oncology staff



with effectiveness of the in-services to be determined by evaluating pretest and posttest results. A flyer was created for the in-service and distributed prior to the presentation. The presenters went to the inpatient units to meet with staff to discuss their familiarity with Radiation Oncology and establish rapport with the staff to help increase attendance to the in-services. A total of 2 approximately 1 hour in-services utilizing a detailed power point presentation were given to the inpatient Oncology units. The attendees were given a pretest prior to the start of the in-services, then given an identical posttest after the education was provided. Attendees were assured this was a safe learning environment prior to the start of the in-service. The posttest results revealed a group average increase in scores after the in-service intervention. All individuals received a passing score on their posttest with only 1 individual having a decreased score on the post test. The individual with the decreased test score voiced confusion over wording of a question, this helped to improve future pre/posttest questions. The results of the tests and discussions held with attendees after the presentation of the in-services showed gained knowledge in the domain of Radiation Oncology. This project was innovative in that this type of nursing focused in-service about radiation treatment had not been previously provided at this institution. The attendees of the in-service voiced increased confidence in caring for patients undergoing radiation therapy and appreciated the collaboration between the interdisciplinary cancer care teams as well as greater opportunities for patient focused cancer care with improvement in outcomes.

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## RESEARCH

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### P326

#### **RELATIONSHIP BETWEEN MULTI-LEVEL SOCIOECONOMIC STATUS AND QUALITY OF LIFE IN WOMEN WITH GYNECOLOGIC CANCERS: A LONGITUDINAL PILOT STUDY**

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#### **Symptom Science**

Low socioeconomic status (SES) is one of the most robust determinants of quality of life (QoL) in a cancer population. However, few studies have evaluated the influence of SES at both individual- and community-levels on QoL. Understanding the multi-level effects of SES on QoL may provide essential insights into the mechanisms that create socioeconomic inequity and its impact on QoL in cancer populations. Thus, the current longitudinal study aimed to evaluate the association between SES and QoL in women with gynecologic cancers. In this secondary data analysis, self-reported QoL was measured using the 3-level Euro QoL-5D (EQ-5D). Moreover, patients' SES at individual- and community-level was assessed using annual household income and area deprivation index (ADI), respectively, at three-time points: pre-treatment (T<sub>0</sub>), six weeks (T<sub>1</sub>), and six months (T<sub>2</sub>) after chemotherapy/chemoradiation. A mixed effect model was conducted to determine associations between SES and QoL. The analysis included 42 cancer patients with a mean age of 54 years and BMI of 29, representing White (52%) and Black (48%) races. Most of the patients had cervical cancer (69%) with stage <III (69%). The annual income of more than half of the participants was below 50K (58%), and most had an education level of college or above (60%). According to the results of the mixed effect model, patients with annual income >50K had higher QoL ( $p=0.02$ ). Moreover, patients who lived in the less deprived neighborhood had higher QoL ( $p=0.01$ ). The findings support the body of evidence from prior studies that lower SES was associated with poor QoL. This study highlights the importance of evaluating SES comprehensively by considering both individual- and community-level factors. This evidences the need to design appropriate multi-level interventions based on SES to improve patients' QoL. Also, nurses, as one of the most trusted healthcare providers, can play a pivotal role in enlightening health outcomes, including QoL by addressing patients' SES at different levels.

### P327

#### **MISSOURI ADVANCED PRACTICE NURSES' PERSPECTIVES ON MANAGING CARE FOR PEOPLE WITH A HISTORY OF BREAST CANCER**

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#### Survivorship and Palliative and Psychosocial Oncology Care

There will be approximately 4.5 million people with a history of breast cancer (PHBC) living in the U.S. by 2026. PHBC face lifelong risk of treatment-related sequelae, including cardiovascular disease, lymphedema, anxiety, and depression. Increasingly in Missouri, primary care, i.e., non-oncology healthcare, is managed by advanced practice registered nurses (APRNs). However, little is known about how APRNs consider a history of breast cancer in the context of primary or non-oncology care. Our research study objectives aligned with the strategic plan of the Missouri Comprehensive Cancer Control Program, which has an objective to assure the highest quality of life possible for cancer survivors and confirms that a better understanding of the current state of survivorship care is warranted. Our study aimed to examine how Missouri non-oncology APRNs incorporate a history of cancer treatment into their care for PHBC. Nineteen non-oncology Missouri-based APRNs participated in focus groups or semi-structured interviews and shared their perspectives about managing care for PHBC. Using a grounded theory approach, interviews were audio-recorded, transcribed, and analyzed. Findings suggest that APRNs recognize the importance of addressing breast cancer treatment history, specifically continued screening and oncology specialty follow-up (e.g., mammograms and appointments with oncology providers). We identified four major themes. Our participants: 1) attuned their baseline assessment techniques to a history of cancer; 2) were comfortable ordering additional evaluation and following recommendations; 3) were willing to figure out next best steps for PHBC; and 4) suggested that streamlined survivorship care resources would benefit providers and PHBC. Our findings shed light on how history of breast cancer factors into an APRN's assessment and planning. However, they were less sure of staying up-to-date with current breast cancer survivorship guidelines beyond imaging and consultation. These were not as straightforward as they would be with other chronic conditions. Oncology history was not always readily available in the EHR or from the patients, but APRNs identified ways to determine treatment history. They valued using technology to facilitate and improve survivorship care for themselves and their patients. Increasing knowledge of survivorship care guidelines could improve long-term health outcomes of PHBC in Mis-

souri, particularly those with limited access to an oncology team. Access to cancer survivorship resources or experts via telehealth or technology for both APRNs and patients could improve overall health of PHBC.

### P328

#### SYMPTOM BURDEN, SYMPTOM MANAGEMENT, AND SUPPORTIVE CARE NEEDS AMONG TISA-CEL AND LISO-CEL CAR T-CELL PATIENTS IN REMISSION: A QUALITATIVE STUDY

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#### Survivorship and Palliative and Psychosocial Oncology Care

The purpose was to explore the symptoms and supportive care needs experienced by patients in remission after tisa-cel or liso-cel chimeric antigen receptor (CAR) T-cell therapy. Though CAR T-cell therapy is expanding in application to various types of cancers, little information is available about the patient symptom experience, symptom management, and supportive care needs, especially three months or more after therapy. This was a qualitative study. Participants were recruited from a comprehensive medical center if they met the following criteria: > 18 years of age, English-speaking, history of B-cell lymphoma, received tisa-cel or liso-cel between 3 months to one year, and currently in remission. Data collection utilized semi-structured telephone interviews that were audio-recorded and transcribed. Two independent coders used NVivo Software to code transcripts. Content analysis was used to analyze the interview data. Data analysis is ongoing. Ten patients who received tisa-cel (n=7) or liso-cel (n=3) for B-cell lymphoma participated in the study. The average time since infusion was 187.5 days, ranging from 113 to 261 days. Participant mean age was 64.5 years. Cytokine Release Syndrome (CRS) and Immune Effector Cell Associated Neurotoxicity Syndrome (ICANS) toxicity grades were gathered from medical chart review: CRS grade 0 (n=3), CRS grade 1 (n=5), CRS grade 2 (n=1), CRS grade 3 (n=1), and ICANS grade 0 (n=10). The most commonly described symptoms included fatigue, weakness, joint pain, and memory-issues. Most participants reported they were

self-sufficient in their activities of daily living. However, some participants expressed physical limitations and social isolation, due to compromised immune systems and concerns related to COVID -19. Participants described the perceived burden for their caregivers. Supportive care needs included cooking meals and grocery shopping. Though our study focused on patients in remission to avoid confounding with ongoing disease or treatment, patients still reported symptoms and side effects. Notably, some participants experience symptoms (e.g., neuropathy) from prior chemotherapy treatments. Participants expressed being unsure of whether ongoing symptoms were related to prior treatments or from the CAR T-cell therapy. Oncology nurses should continue to assess symptoms among adult CAR T-cell patients in remission and offer supportive care as needed. Future research may determine what patients are more at risk of developing long-term symptoms, to describe symptom trajectory, and develop targeted interventions to reduce symptom burden and meet supportive care needs.

### **P329 PERCEPTION, KNOWLEDGE, ATTITUDES, AWARENESS, INTENTIONS, AND BEHAVIORS TOWARD CERVICAL CANCER PREVENTION AMONG GHANAIAN DESCENT WOMEN: NEW YORK CITY**

**Angela Adjetey Appiah, PhD, DNP, MPH, RN, COA,  
FAACM, Pace, Tappan, NY**

#### **Complex Research Designs and Advanced Methods**

The study explored perception, knowledge, attitudes, intentions, and behaviors related to cervical cancer prevention and Ghanaian American women's engagement in cervical cancer prevention activities; insights are unknown. All African Americans/Blacks are categorized in the USA under one. Research shows that women in Ghana, West Africa, have increased mortality from cervical cancer. Understanding and exploring why cervical cancer is a health burden helps address the population's health needs. IRB approval and a qualitative descriptive study were conducted with Ghanaian American women (N=15) from communities in NYC to explore and understand their cervical cancer prevention activities. Purposive sampling helped recruit participants who completed a demographic assessment. The Preventive Health Model was used as a conceptual framework for developing the open-ended questions for the semi-structured interview guide utilized to collect data. Data analysis resulted in six major themes and four subthemes. 1. Cervical cancer preventive behavior experiences had four subthemes: Subtheme 1a. Barriers-

hindrances to preventive behaviors. Subtheme 1b. Seeing a healthcare provider and perception/experiences. Subtheme 1c. Education. Subtheme 1d. Healthy lifestyle. T2: Cultural, family practices, and influences on preventive behaviors. T3: Intentions, actions, and plans when practicing preventive behaviors. T4: Influences of perceptions about cervical cancer. T5: Decision making, healthcare professionals, and follow-up. T6: Lack of knowledge, awareness, and self-motivated learning/knowledge. Outcome suggested that cervical cancer prevention activities such as screening comprise multiple factors and behaviors influencing participation. In addition, the findings showed that cultural influences play a part in uptake. A culturally congruent approach can encourage Ghanaian women to undergo cervical cancer prevention. The study's findings/outcomes: prevention and health promotion activities may benefit from multi-factorial, cultural, and contextual congruency, awareness, and education for at-risk populations using an updated screening guideline to close the gap in the lack of cancer screening knowledge. Cultural beliefs also influence decision-making and follow-up with preventive initiatives. Prevention and health promotion activities may benefit from multi-factorial, cultural congruency, awareness, and education for at-risk populations using an updated screening guideline. This research recommends that the study insight be applied to intervention approaches to addressing prevention and screening activities, education, and community. Outcome suggested that activities comprise multiple factors influencing participation in cervical cancer prevention. Findings showed self-efficacy and health education, the efficacy of screening, cultural influences, and humility; screening adherence, improved education outreach intervention using a community participation approach, and population health initiatives play a part in uptake.

### **P330 LUNG CANCER PATIENTS AND PALLIATIVE CARE SUPPORT: HOW DO SOCIAL DETERMINANTS OF HEALTH FACTOR INTO THE USE OF PALLIATIVE CARE SUPPORTIVE SERVICES FOR OLDER ADULTS?**

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#### **Survivorship and Palliative and Psychosocial Oncology Care**

The purpose of this pilot retrospective chart review

was to evaluate palliative care (PC) received by deceased lung cancer (DLC) patients. Social determinants of health (SDOH) factors were evaluated for any trends with lung cancer patients related to PC/end of life (EOL). The overall aim of this research was to ascertain if SDOH influenced the use of PC services among dying lung cancer patients. This will impact the state of the science of nursing regarding the delivery and approach to palliative care for all patients, not just lung cancer patients, to promote a peaceful death. Lung cancer accounts for 23% of all cancer deaths among adults in the US, and most are over age 65. (Centers for Disease Control, 2021). PC support is provided less often to marginalized populations (Sawyer et al., 2021; Ellis & Jacobs, 2021; Johnson, 2020; Murali et al., 2020). In one study, PC support for metastatic lung cancer patients in four states was received at a low rate. (Huo et al., 2021). No published studies were found that reported trends in SDOH factors and PC/EOL support for lung cancer patients. Research is needed to evaluate PC/EOL care practices and SDOH factors for lung cancer patients from diagnosis to EOL. Data collected included: Diagnosis and PC/EOL Care: lung-cancer diagnosis and death dates; treatments and symptom-management; smoking history; PC consult dates and discussion topics; PC symptom-management support; DNR preference; and death location preference. Demographics: age, gender preference, race, ethnicity, marital status, education, and religious preference; and SDOH Factors: ethnicity preferences; zip code; socioeconomic status; education; and barriers to accessing health care/food. The selected hospital was a medical center serving a diverse population in the Midwest. This study is currently in progress. Data collection is complete and data analysis is underway. Data analysis will be complete by late 2022. Findings will be updated and available by January 2023. Interpretations and findings will be made from data analysis and will be updated by January 2023. Preliminary findings include palliative care is underutilized by the marginalized and those with identified SDOH and a lung cancer diagnosis. This was found to be especially true in the African American population, those in low-income areas and those without a significant other or a family support system.

### **P331 VIRTUAL REALITY TO IMPROVE CANCER PATIENTS' QUALITY OF LIFE: A SYSTEMATIC REVIEW**

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### **Survivorship and Palliative and Psychosocial Oncology Care**

Quality of life (QoL) encompasses important elements of a patient's emotional, social, and physical well being. Cancer patients face psychological issues such as stress, anxiety, and depression, as well as physiological side effects such as hair loss, pain, tiredness, nausea, and vomiting, as well as social issues such as social isolation, role, and function loss, and, eventually, this worsened their quality of life. These issues cause the deterioration in the QoL of cancer patients. The purpose of this review was to examine whether the existing literature allows any conclusions to be drawn about the effectiveness of using virtual reality on the quality of life of cancer patients. A literature search was conducted in five databases (Nursing and Allied Health (CINAHL), PubMed, Web of Science, Ovid MEDLINE, and Scopus) in June 2022. "Cancer\*", "Cancer patients", "Quality of Life\*", "Augment reality", "Virtual reality", and "Randomized Controlled Trial\*" keywords were used. Added the asterisk wildcard to certain search phrases to allow more comprehensive identification of related studies. A systematic literature search according to PRISMA guidelines was performed. Six studies (two RCTs and four quasi-experimental designs) that examined the effect of virtual reality on quality of life were included. These studies include 244 patients with different types of cancer and receiving active chemotherapy or radiotherapy. EORTC QLQ C30 and The Functional Assessment of Cancer Therapy (FACT) were used to assess the QoL in the studies. While one study reported no significant change in QoL other studies reported an improvement in QoL. But authors indicated that the improvement of QoL could be the impact of improvement of symptom management. Only in one study user experiences was evaluated. Additional research and development are needed to assess the long-term outcomes of the VR on QoL and to control the other related factors on the improvement of QoL. The results need to be confirmed in a larger multicenter study with a longer follow-up.

### **P332 MULTI-OMICS ANALYSIS OF THE MICROBIOME-METABOLOME BIOMARKERS ASSOCIATED WITH PSYCHONEUROLOGICAL SYMPTOMS IN CHILDREN WITH CANCER RECEIVING CHEMOTHERAPY**

Jinbing Bai, PhD, MSN, RN, FAAN, Nell Hodgson



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#### Genetics / Genomics / Biosignatures

Children with cancer receiving chemotherapy reported cooccurring psychoneurological symptoms (PNS), including pain, fatigue, anxiety, depression, and cognitive dysfunction. Inappropriate management of PNS adversely impacts a child's psychosocial functioning and quality of life. The role of the gut microbiome (GM) and its functional metabolites in PNS is rarely studied in children with chemotherapy. The purpose was to identify GM and its metabolites associated with PNS in children with cancer receiving chemotherapy as compared to age-, sex-, race/ethnicity-, and body mass index (BMI)-matched healthy children. A case-control study was conducted, with 21 cancer cases and 16 controls enrolled. Cases were recruited from Children's Healthcare of Atlanta and controls were recruited via flyers. The GM and its metabolites were measured by fecal specimens collected following the Human Microbiome Project protocol. Children reported PNS using the PROMIS® measures. Data for cases were collected pre-cycle 2 chemotherapy (To) and post-chemotherapy (T1); data for controls were collected once. 16S rRNA V4 gene was sequenced for GM and untargeted metabolomics was performed for metabolites. A multi-omics network integration program (xMWAS) analyzed microbiome-metabolome biomarkers of PNS. Cases and controls had mean ages of 13.2 and 13.1 years. More than 75% of cases were diagnosed with sarcomas. Two groups had no significant differences in age, sex, race/ethnicity, and BMI. The GM-metabolome-PNS networks were clustered into 6 communities (C1-C6) for cases at To and for controls, as well as 5 communities (C1-C5) for cases at T1 (Figure). At To, PNS were negatively associated with probiotic-type or short-chain fatty acids-producing microbes (i.e., *Lactobacillus*, *Bifidobacterium*, and *Roseburia*) that were significantly associated with carnitine shuttle ( $p=0.0003$ ), fatty acid metabolism ( $p=0.001$ ) and activation ( $p=0.001$ ), and tryptophan ( $p=0.008$ ). At T1, PNS were negatively associated with *Intestinibacter* that was significantly associated with aspartate and asparagine metabolism

( $p=0.034$ ), carnitine shuttle ( $p=0.002$ ), and tryptophan ( $p=0.019$ ). Additionally, probiotic-type bacteria (e.g., *Ruminococcaceae* and *Akkermansia*) along with fatty acid metabolism, tryptophan, and carnitine shuttle were more influential to the case network relative to the control network. Multi-omics analyses suggested greater potential impact of probiotic interventions among children with cancer to help reduce inflammation and therefore PNS associated with children with cancer chemotherapy. Our findings need to be further confirmed in a large sample. The first study used a multi-omics approach to identify the GM and metabolic biomarkers associated with PNS in pediatric oncology.

### P333

#### NUTRITION AND EATING IN ADULTS AND OLDER ADULTS WITH ACUTE MYELOID LEUKEMIA AND MYELOYDPLASTIC SYNDROMES: A SCOPING REVIEW

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#### Aging

Acute Myeloid Leukemia (AML) and Myelodysplastic Syndromes (MDS) commonly affect adults/older adults aged 55+. The treatments can be intensive with many side effects which may influence a patient's ability to eat and maintain an optimal nutritional status. Challenges with eating and impaired nutrition can have severe consequences that may impact the course of treatment and recovery. We conducted a scoping review to (1) explore eating and nutritional challenges among adults/older adults aged 55+ with AML and MDS and (2) assess the effects of these challenges on physical health, psychosocial health, and quality of life (QOL). We used Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) guidelines to search across PubMed, CINAHL, and Scopus databases for English, peer-reviewed, empirical studies pertaining to nutrition, eating, and mealtimes for AML/MDS patients. We selected studies with findings related to eating, drinking, mealtimes, gastrointestinal symptoms and nutritional concerns among AML/MDS patients aged 55+.



Drug trials for effectiveness and studies to assess risk of future cancers were excluded. Twelve studies were included in the final review (8 retrospective, 2 prospective cohorts, 1 prospective intervention, 1 not reported; 8 AML, 3 MDS, and 1 reported both), published in 2010-2022 from eight countries. Most studies assessed nutrition using the Mini Nutritional Assessment or BMI, and performed these assessments at admission for chemotherapy or stem cell transplant. Across the studies, individuals with AML/MDS had nutrition-related challenges such as weight changes (e.g., obesity, weight loss), metabolic complications (e.g., need for hypoglycemics), sarcopenia, and gastrointestinal complications. Studies reported the effects of these nutritional challenges on survival, clinical outcomes (e.g., toxicity of chemotherapy, remission) and/or QOL. In our review, we identified nutritional challenges among AML/MDS patients aged 55+, however multiple gaps exist in the current literature. None of the studies reported the effects of eating and nutritional challenges on psychosocial outcomes. Moreover, we could not find studies that included the health of caregivers. Caregivers are an important support system and may influence or be affected by challenges with eating, nutrition, and meal-times. Only one study reported patient race/ethnicity, which is recommended to be measured in future studies to assess for differences and gaps. Findings of this review may be useful for clinicians to understand the range of eating and nutritional challenges and their effects on QOL.

### P334

#### THE LIVED EXPERIENCE OF BODY IMAGE IN WOMEN UNDERGOING ACTIVE TREATMENT OF HEAD AND NECK CANCER: A HERMENEUTICAL PHENOMENOLOGICAL INQUIRY

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##### Symptom Science

Women with head and neck cancer (HNC) are at risk for changes in body image due to tumor presence and the side effects of the treatments. Physical, psychological, and social constructs of body image can influence the patient's perception of body image. Little research has been done to support understanding the lived experience of women who are treated for head and neck cancer. Interviews were transcribed verbatim and analyzed using van Manen's method. A hermeneutical phenomenological inquiry into the lived experiences of women diagnosed with HNC undergoing treatment (currently or within past three months) was conducted.

A sample of 13 participants were recruited and interviewed using phone and virtual platforms until data and theoretical saturation was achieved. Interviews were transcribed verbatim and analyzed using van Manen's method. Preliminary data analysis revealed 5 themes (1) changing roles and relationships, (2) physical changes, (3) depression and isolation, (4) resilience and self-preservation, and (5) support systems. Multiple subthemes were found within these themes addressing the complexity not only the physical aspects of this disease and treatment, but the psychosocial and psychological challenges felt and further complicated by internalized feelings of guilt and stigmatization. Women in treatment for HNC experience life-changing alterations in body image demonstrated through the physical, psychological and social constructs of body image. The physical components of dysfunction, disfigurement, and debility, contributed to women perceiving themselves as less than ideal. Psychological components included negative emotional well-being and altered perceptions of self and sexuality. Social components included changes in social functioning around food, changing roles and relationships with others, and feelings of stigma. These changes in body image are intertwined with a feminist point of view and resulted in women reaching out to female friends and support groups with women in similar situations to help them cope. It is essential for healthcare providers to recognize how treatment side effects impact every aspect of body image and quality of life. Continued research is needed to determine best supportive interventions to promote coping and long-term recovery related to changes in body image.

### P335

#### PILOT TESTING OF EVIDENCE-BASED ONCOLOGY SYMPTOM MANAGEMENT TELE-HEALTH SIMULATION-BASED EXPERIENCES

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##### Survivorship and Palliative and Psychosocial Oncology Care

Telehealth is a rapidly-expanding mode of healthcare delivery for oncology evidence-based symptom management (EBSM) and has been increasingly utilized for assessment and evidence-based management of symptoms and side effects related to active cancer treatment. Telehealth stimulation-based experiences (T-SBEs) offer one approach to prepare nursing

students with the requisite knowledge and skill to deliver oncology EBSM using telecommunication technology. There is limited literature published about the use of in-person or virtually-delivered SBEs to teach oncology evidence-based symptom management (EBSM) to prelicensure nursing students. The purposes of this pilot study were to evaluate the effects of T-SBE using standardized participants (SPs) on baccalaureate nursing students' a) self-perceived competence and confidence and b) anxiety and self-confidence in clinical decision-making related to oncology EBSM; and c) perceptions of T-SBEs to learn oncology EBSM in a seminar-style course. A pre-test/posttest, one-group, convergent mixed-methods design with questionnaire variant was used. Fourteen senior baccalaureate nursing students participated in the study. Two previously validated EBSM SBEs with SPs, developed using the INACSL Standards of Best Practice: SimulationSM, were converted for virtual delivery using a telehealth format. Data were collected from students before and/or after the two oncology EBSM T-SBEs. Researcher-developed scales were used to measure self-perceived competence and confidence related to oncology EBSM ( $\alpha = 0.91-0.96$ ) and to assess student's perceptions about and satisfaction with the T-SBEs as a teaching strategy ( $\alpha = 0.94$ ). The Nursing Anxiety and Self-Confidence with Clinical Decision-Making Scale (NASC-CDM©) was used to assess students' anxiety and self-confidence in clinical decision-making. Quantitative data were analyzed using descriptive statistics and paired-sample t-tests, and qualitative data were analyzed using thematic analysis. The T-SBEs resulted in a significant increase in self-perceived competence, confidence, and self-confidence in clinical decision-making related to oncology EBSM. There was a nonsignificant decrease in anxiety scores related to clinical decision making. Qualitative themes included: value, application, and preference for in-person SBEs. This pilot study was the first to explore the effect of T-SBEs with SPs on baccalaureate nursing student learning outcomes related to oncology EBSM. Findings from this study reinforce positive student perceptions of T-SBEs with SPs and increases in self perceived competence and confidence related to oncology based EBSM. Nursing educators should consider incorporating T-SBEs into their nursing curricula. Future research is warranted to definitively determine the effect of oncology EBSM T-SBEs on student learning.

### P336

#### THE EFFECTS OF A SIMULATION-BASED EXPERIENCE WITH STANDARDIZED

#### PARTICIPANTS ON LEARNING AND CLINICAL DECISION-MAKING RELATED TO NURSING MANAGEMENT OF ONCOLOGIC EMERGENCIES

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Graduate nurses must be able to manage oncologic emergencies to ensure best patient outcomes. Many oncologic emergencies are unexpected and nurse educators cannot plan for them in the clinical setting. Active teaching strategies must be developed to prepare students with appropriate nursing oncology knowledge and skills. There is limited evidence that the use of simulation in prelicensure nursing curricula increases students' knowledge, confidence, and competence related to clinical emergencies. The purposes of this study were to evaluate the effect of simulation-based experiences (SBEs) involving patient and family member standardized participants (SPs) on baccalaureate nursing students': 1) confidence and competence (objective and self-perceived), 2) anxiety and self-confidence with clinical decision-making, and 3) satisfaction and self-confidence in learning using SBEs with SPs related to oncologic emergency management within a seminar-style course. A longitudinal, one-group, convergent mixed-methods design with questionnaire variant was used. A convenience sample of 25 senior baccalaureate nursing students participated in this study. Participants engaged in two 20-minute SP simulation scenarios, followed by a 40-minute structured debriefing. The overall goal of the simulations was to recognize and provide appropriate evidence-based nursing care for an oncologic emergency and provide appropriate communication and support to the patient and family member. Data were collected pre-seminar, pre-simulation, and post-simulation. Quantitative data were analyzed using descriptive statistics and one-way repeated measures analysis of variance. Qualitative responses to open-ended questions were analyzed using conventional content analysis. There was a significant increase in students' confidence and self-perceived competence; and a significant decrease in anxiety and increase in self-confidence in clinical decision-making related to nursing management of oncologic emergencies over time. All seven student groups in the hypercalcemia SBE, and five student groups in the hypersensitivity reaction SBE demonstrated objective competence.

Qualitative themes included: realism, critical thinking, and benefits. This was one of the first studies to examine the effectiveness of SP simulation in a seminar-style nursing course for the application of oncology content. The findings support integration of simulations that provide opportunities to practice knowledge and skills required to effectively manage an oncologic emergency and supports feasibility and efficacy of incorporating simulation into seminar-style courses. The inclusion of family-centered care increases realism and complexity. Future research is needed to address the limitations of this study and expand the empirical evidence related to simulation and oncology content.

### **P337 IS THERE CANCER-RELATED COGNITIVE IMPAIRMENT IN OLDER ADULTS WITH ACUTE MYELOID LEUKEMIA TREATED WITH HYPOMETHYLATING AGENTS AND VENETOCLAX CHEMOTHERAPY?**

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#### **Symptom Science**

Cancer-related cognitive impairment (CRCI) has been reported in survivors across cancer diagnoses. Survivors with CRCI have deficits in various cognitive domains. They face challenges in working, maintaining social connection, and performing daily activities. However, there is limited understanding on CRCI in older adults with acute myeloid leukemia (AML). We aimed to explore CRCI in older adults ( $\geq 60$  years) with AML who received hypomethylating agents and venetoclax (HMA+VEN) chemotherapy from cycle 1, cycle 2, to cycle 4. A prospective longitudinal study with assessments performed within 3 days of the initiation of cycles 1, 2, and 4 of HMA+VEN. Subjective cognitive function was assessed using the Functional Assessment of Impairment of Cancer Therapy-Cognitive Function, objective cognitive function was measured with a battery of neuropsychological measures [Hopkins Verbal Learning Test-Revised (HVLT-R), Digit Span (DS)-forward & backward, Delis-Kaplan Executive Function System Letter Fluency Test, Trail Making Test], respectively. We conducted descriptive analysis

to assess the minimal clinically important differences and practice effects adjusted reliable change index to determine individual change of cognitive function; cut-off score and the International Cancer and Cognition Task Force z-score criteria to calculate prevalence of cognitive impairment. A total of 14 (cycle 1), 11 (cycle 2), and 4 (cycle 3) participants completed the assessments. Attrition reasons include change of treatment (n=4), death (n=2), and treatment delayed (n=1). The mean age of sample was  $73.6 \pm 8$  (64-89) years. Majority were male (78.6%), non-Hispanic White (92.9%), and high school graduates (64.3%). Up to 27% of participants reported subjective cognitive decline from cycle 1 to cycle 2 while none experienced a subjective decline from cycle 2 to cycle 4; 10-40% of participants had a decline in HVLT-R and DS-backward from cycle 1 to cycle 2 and cycle 2 to cycle 4. Participants experienced 33-63% prevalence of subjective or objective cognitive impairment across cycles 1, 2, and 4. Specifically, HVLT-R delayed recall had a highest prevalence (25-50%) of impairment across all cycles. Older adults with AML experienced objective or subjective CRCI across the four cycles of HMA+VEN. The decline and impairment were mainly observed in the verbal learning ability but not lexical fluency or executive function. These results should be interpreted conservatively due to the small sample. The study informs our understanding of CRCI in AML and guides future longitudinal studies.

### **P338 SYMPTOM CLUSTER SEVERITY AND RELATIONSHIP TO GASTROINTESTINAL MICROBIOME IN WOMEN WITH BREAST CANCER RECEIVING CHEMOTHERAPY**

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#### **Symptom Science**

Despite pharmacologic management, symptoms in people with cancer remain prevalent and severe. Research has shown that people with cancer receiving chemotherapy experience as many as 15 concurrent symptoms, often as part of a symptom cluster. While some contributors to symptom severity are well documented, such as emetogenicity of chemotherapy, many remain undescribed. Emerging evidence suggests that the bacteria of the gut, known as the GI microbiome, may also influence symptom severity. Reduced microbial diversity is associated with severe GI symptoms like nausea, diarrhea, and oral mucositis in people with cancer. However, the connection between GI

microbiome and symptom clusters remains unknown. The purpose was to describe symptom clusters in women with breast cancer receiving chemotherapy and explore if changes in the microbiome may contribute to symptom cluster severity. Seven days after receiving chemotherapy, 60 women with breast cancer completed a 41-symptom questionnaire based on the modified Memorial Symptom Assessment Scale (MSAS) and collected a stool sample using an Omnigene stool kit. Exploratory factor analysis using severity ratings will be used to identify symptom clusters in breast cancer patients. For each symptom cluster identified, we will calculate an average severity score based on component symptoms in that symptom cluster and categorize each participant as having low, moderate, or high severity. Omnigene kits will be analyzed using 16s analysis and absolute numbers and relative percentages of GI bacteria will be quantified. Associations between bacteria and symptom cluster score will be calculated using regression analysis. Participant recruitment has concluded, and we are analyzing data. Results will be reported regarding sample characteristics, symptom clusters present in the sample, microbiome analysis, and relationship between bacteria and symptom cluster severity score. Poorly managed symptom clusters can lead to interference with activities of daily living, reduced quality of life, and reduced survival. One potential mechanism driving symptom severity is alterations in the GI microbiome due to cancer-chemotherapy. Describing specific biologic mechanisms responsible for GI symptom severity and could lead to novel symptom management interventions. Much of the microbiome-related research involves risk for disease and few studies explore its connection to symptom burden. The innovation of this work is that it will use chemotherapy-associated changes in the microbiome to explore specific microbial differences associated with high symptom cluster severity.

### P339

#### **CLINICAL RESEARCH PROFESSIONALS' (CRPS) PERCEPTIONS OF USING ELECTRONIC PATIENT-REPORTED OUTCOME (EPRO) DATA COLLECTION SYSTEMS IN ONCOLOGY CLINICAL TRIALS: A MIXED-METHODS STUDY**

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#### **Complex Research Designs and Advanced Methods**

Clinical Research Professionals' (CRPs) experiences and attitudes regarding the value of mobile-based "Bring Your Own Device" (BYOD) electronic patient-reported outcome (ePRO) data collection systems have not been fully understood. This study aimed to explore CRP-perceived facilitators and barriers to adopting the BYOD mobile-based ePRO systems in oncology clinical trials. Patient participation in oncology clinical trials is crucial to knowledge discovery and treatment evaluation. In multi-site trials, BYOD ePRO data collection is gaining momentum. Despite evidence demonstrating the advantages of ePROs, patients' uptake is low (37.8%). CRPs' attitudes toward technology and perceptions of using ePROs may influence patients' acceptance and use of ePROs. Using a mixed-methods approach, CRPs were recruited from the NCI-affiliated research sites. Attitudes toward technology were quantitatively measured using the Technology Attitudes Scale – Adapted (TAS-A) (1-5 scale). Higher mean scores indicate more positive attitudes. CRPs' perceptions of ePROs were explored through 1:1 semi-structured interview. Descriptive statistics and Mann-Whitney U tests were used for quantitative data analysis. Qualitative data were analyzed using content analysis. CRP participants (N=23; 22 sites) reported positive technology attitudes (mean=4.25, SD=0.62, range 2.59-4.93). Interview data revealed both CRP-related and non-CRP-related facilitators and barriers. "Reduced data-entry associated workload" was the main CRP-related facilitator. CRP-related barriers included "increased workload related to patient education about the ePRO system", "lack of control over data collection schedules", "lack of access to the system onsite", and "CRPs' pre-assumptions about patients' technology competencies." The non-CRP-related facilitators included "patients' convenience and increased autonomy" while "patients' poor competencies related to digital divide", and "non-user-friendly system interface" were shown as the non-CRP-related barriers. CRPs with a relatively positive attitude (mean=4.55, SD=0.30) appreciated the ePRO system's data quality benefits, whereas CRPs with a relatively negative attitude (mean=3.99, SD=0.42) described feeling burdened when assisting patients. There was no statistical significance in the difference between CRPs' attitudes toward



technology and qualitative code frequencies. Findings suggest that CRPs may serve as gatekeepers to patients' uptake of ePRO systems. CRPs' perceived usefulness of ePROs may vary based on their personal experiences and attitudes. The results of this study can be used to create appropriate CRP training programs that are tailored based on individual perceptions and needs, which should be able to contribute to improving patient uptake of ePROs in oncology clinical trials.

### **P340** **PERCEPTIONS OF MEDICATION SAFETY** **DURING TRANSITIONS OF CARE IN PATIENTS** **TAKING ORAL ANTICANCER AGENTS**

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#### **Survivorship and Palliative and Psychosocial Oncology Care**

Frequent transitions of care (TOC) among patients with cancer increase patients' risks for adverse events. Patients taking oral anticancer agents (OAA) particularly face challenges for managing their medications at home. This study aimed to understand these patients' perceptions of medication safety during TOC and identify factors associated with their perceptions. Patients taking OAAs are expected to manage their complex regimens, toxicities, and drug-drug/drug-food interactions at home with limited supervision from clinicians. Their medication self-management behaviors have not been fully understood but are believed to be associated with their perceptions of medication safety. It is important to understand their safety perceptions to develop effective programs to support their needs and improve the quality of care. A survey was conducted with 114 patients taking OAAs who were recruited from an NCI-designated Comprehensive Cancer Center. Perceived medication safety (i.e., toxicity, taking medications at home, managing side effects, and safety during TOC) was measured by four items adapted from a previous Safety Survey. Higher sum scores indicate higher perceived medication safety (range: 0-16). Potential factors were assessed, including sociodemographic and clinical factors, self-rated health status, self-efficacy and social support, perceived safety in communicating

with clinicians, belief about medication, and medication self-management ability. Descriptive statistics, bivariate and multiple linear regression were performed. Findings and Interpretation: Participants' mean age was 65.48 (SD=10.42); and diagnosed with breast (37%), prostate (26%), lung (23%), and colorectal (14%) cancer. Participants demonstrated moderate perceived medication safety (mean=13.59, SD=1.88). Younger age ( $r = -0.15$ ,  $p = .03$ ), feeling safe in communicating with clinicians ( $r = 0.53$ ,  $p < .001$ ), and better medication self-management ability ( $r = 0.34$ ,  $p < .001$ ) were significantly associated with higher perceived medication safety in bivariate analyses; these associations persisted in the multiple linear regression model ( $r = 0.04$ ,  $0.67$ ,  $0.28$ , respectively. All  $p < .05$ .  $R^2 = 0.54$ ). Additionally, patients with less concern about medications ( $r = -0.15$ ,  $p = .001$ ) or those who avoided visiting clinicians ( $r = 1.25$ ,  $p = .01$ ) reported higher perceived medication safety. Patients felt safe with taking their OAA in general, which was mainly associated with their perceived safety in communicating with clinicians and medication self-management ability. Patients with strong safety perceptions might decide to avoid clinical visits. However, this finding will need further exploration. Findings from this study will help oncology nurses become aware of patients' medication safety concerns and their individual needs for medication self-management during TOC.

### **P341** **ORGANIZATIONAL-LEVEL BARRIERS TO** **COLORECTAL CANCER SURVIVORSHIP CARE** **IN THAILAND**

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As greater attention is given to cancer survivorship care globally, disparities in colorectal cancer (CRC) survivorship care have been identified in low- and middle-income countries. In striving to provide high-quality survivorship care, healthcare organizations face particular challenges. This study aimed to explore organizational-level barriers to CRC survivorship care in Thailand. The cancer survivorship care quality framework published in 2019 proposes that provision of quality survivorship care is influenced by



socioecological factors on all levels, including individual, interpersonal, organizational, community, and policy factors. Based on the framework, this study focused on organizational-level factors influencing CRC survivorship care. Because the framework does not identify specific influencing factors, we reviewed the literature on organizational-level characteristics affecting health-care service implementation more broadly to fashion an interview guide for identification of barriers to CRC survivorship care. In this qualitative descriptive study, we conducted in-depth individual interviews online following the semi-structured interview guide in July and August 2022. Twenty-one healthcare providers (12 nurses and nine physicians) involved in CRC survivorship care were purposively recruited from Thailand's largest public tertiary university hospital. Interviews were recorded, transcribed, and analyzed using deductive content analysis. Preliminary analysis of the first five interview transcripts revealed five main organizational-level barriers to CRC survivorship care: (1) limited hospital resources (time, space, workforce), (2) lack of practice guidelines, (3) a fragmented clinical structure, (4) absence of a multidisciplinary care system, and (5) insufficient information systems. Three other key issues—lack of (1) incentives, (2) hospital leadership, and (3) hospital priorities—were discussed in the interviews, but due to their professional commitment to quality care, healthcare providers did not perceive these issues as barriers. We uncovered a wide range of organizational-level issues with CRC survivorship care in the Thai healthcare system. Based on our findings, hospital and nurse leaders in low- and middle-income countries should carefully consider appropriate strategies as well as organizational constraints when designing a CRC survivorship care model and services. Organizational and implementation theory could provide useful direction on how to address survivorship care issues.

### **P342**

#### **A RETROSPECTIVE LONGITUDINAL ANALYSIS OF PHENOTYPIC CHARACTERISTICS AND ORAL HEALTH SYMPTOM PATTERNING DURING CHEMORADIATION TREATMENT AND SURVIVORSHIP FOR HEAD AND NECK CANCER**

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#### **Symptom Science**

Patients with head and neck cancer (HNC) experience a myriad of symptoms due to the standard treatment of concurrent chemotherapy and radiation (CCRT). This regimen is characterized by increased severity of oral health symptoms due to tumor location and overlapping injuries from both treatment modalities. These symptoms (pain, mucositis, taste alterations, xerostomia, dysphagia, and candidiasis) typically occur in a cluster and exacerbate one another. Less is understood related to risk for treatment symptomatology related to phenotypic characteristics, particularly HPV status. HPV has been implicated in carcinogenesis across various HNC tumor types and is an important factor in HNC symptom assessment. The aim of this study was to examine the oral health and phenotypic effects on identified symptom patterning among HNC patients undergoing CCRT across treatment and survivorship. A retrospective, longitudinal chart review study was conducted involving sequential records of patients who underwent treatment for HNC in a Northeastern United States cancer institute. Symptom data were examined at weekly treatment visits (weeks 1-6) throughout treatment, and at monthly post-treatment follow-up visits (months 1-3 of survivorship). Descriptive statistics and latent transition analysis (LTA) were utilized. In the sample of 270 patients, the majority were male (76.7%), white (93%), non-Hispanic (89.6%), and had HPV-associated HNC (64.4%). The two HPV subgroups had statistically significant differences in BMI, race, ethnicity, smoking status, alcohol use, disease site and cancer staging. Patients in the HPV-negative group were more likely to be non-white, current smokers, former alcohol drinkers (indicating prior alcohol abuse), with higher cancer stage (III or IV). In the LTA, latent classes of oral health symptoms transitioned into unique patterns of severity as treatment progressed with persistence of moderate symptomatology 2 to 3 months into survivorship. HPV-negative status modulated symptom patterning by increasing the likelihood of more severe symptom class membership. Further research is necessary to understand how social determinants of health, observed in the HPV-negative subgroup, may modulate the symptom experience in this

population to develop more targeted outreach and support. Examining patient-reported symptoms and phenotypic differences can help nurses identify and develop interventions for patients at risk for poorer outcomes. This research was funded by the Sigma Theta Tau International Mu Chapter and the Connecticut Nurses Foundation.

### **P343**

#### **CLIMATE DISASTERS AND ONCOLOGY CARE: A SYSTEMATIC REVIEW OF EFFECTS ON PATIENTS, HEALTHCARE PROVIDERS AND HEALTH SYSTEMS.**

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##### **Healthcare Delivery**

Climate and natural disasters have devastating effects on communities and society. These effects encompass all aspects of daily life, including healthcare. Patients diagnosed with cancer are particularly vulnerable when disaster strikes. Damage to homes and health systems, treatment interruptions, and a lack of emergency preparedness can lead to diminished outcomes for all, with already vulnerable and marginalized communities impacted most. As the number and intensity of disasters increases, it is important to understand the effects on cancer care. This systematic review updates a previous review to investigate the effect of climate disasters on cancer care at the micro (patient), meso (healthcare workforce) and macro (health system) levels. A medical librarian conducted a literature search in PubMed, Embase, CINAHL, and Web of Science. The strategy from the previous study was revised and additional terms were added, in order to ensure that all relevant results were captured. Inclusion criteria included any published report on a climate or natural disaster globally that included outcomes on the effects on patients, the oncology healthcare workforce, or healthcare systems. Studies on general environmental health or commentaries without primary data were excluded. Methodological quality was assessed using the framework developed by Murad et al. (2018). Findings were narratively synthesized, given the diversity of reported evidence. The literature search identified 3,618 records, of

which 47 publications were eligible for inclusion. The most frequent climate disaster was hurricanes (N=29) followed by tsunami (N=10). 18 publications were from disasters that occurred in the mainland United States with 13 from Japan and 12 from Puerto Rico. Findings include effects at the patient level such as treatment interruptions and inability to communicate with the healthcare team. At the workforce level, findings include a need for care coordination infrastructure and preparedness plans. Health systems reported a need to have an emergency response plan and to coordinate local and national resources. Additional findings will be presented. Nurses, as essential members of the healthcare team, are a vital voice in research connecting climate events to patient outcomes. Education translating research to the point of care such as ensuring minimal disruptions to treatment and ongoing care is needed. Post-disaster, nurses have a key role in assessing patients for the impacts of the disaster and collaborating with the healthcare team to mitigate risks.

### **P344**

#### **EXPERIENCE OF HISPANIC BREAST CANCER SURVIVORS TAKING ADJUVANT HORMONE THERAPY**

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##### **Health Equity**

Breast cancer (BCa) is the most diagnosed cancer and the leading cause of mortality in Hispanic women (HW). Since hormone receptor positive BCa is the most common subtype in HW, their survival could be improved if more HW were to adhere to adjuvant hormone therapy (AHT). However, compared to other racial/ethnic groups, HW have a higher AHT discontinuation rate. This may contribute to BCa outcome disparities, yet barriers and enabling factors to adherence are understudied in this underserved population. Thus, the purpose of this study was to explore the barriers and enabling factors of AHT adherence among Hispanic BCa survivors. This qualitative exploratory study engaged a convenience sample of Hispanic BCa survivors who were currently taking, or have taken AHT. Semi-structured interviews conducted in English or Spanish (participant's preference) focused on

perceptions of AHT; barriers to adherence (e.g., cultural beliefs, socio-economic and linguistic factors); and enabling factors (e.g., religion, family). Participants completed acculturation and demographic questionnaires. A directed content analysis approach was deployed and informed by Andersen's Behavioral Model for Health Services Use. Saturation was assessed through iterative review of data during all phases of collection. NVivo software facilitated coding and analysis. Eighteen women completed the interviews: nine Spanish-speaking, nine English-speaking, mean age 46.4. Most participants took Tamoxifen. Analysis yielded six themes: 1) AHT education, 2) treatment impact on self/family, 3) treatment coping strategies, 4) medical team interactions, 5) quality of care, and 6) access to care. Hispanic culture did not emerge as a salient theme; however, the English-speaking HW shared experiences that demonstrated their ability to advocate for themselves with providers more frequently than Spanish-speaking HW.

Few studies have targeted AHT adherence in Hispanic BCa survivors; hence, this study is novel. Overall, participants shared that they received inadequate patient education about medication management; however, participants found various means of coping with treatment challenges. Participants cited concerns related to quality of care, some exacerbated by their social circumstances; respondents also reported enabling factors, such as supportive family, faith in God, and eagerness to learn. These preliminary study findings will be used to design a text-message mHealth intervention in a future study aimed to improve AHT adherence in Hispanic BCa survivors.

### **P345 LARGE ACADEMIC MEDICAL CENTER PROVIDES THE BENEFIT OF A CLINICAL RESEARCH TRIAL TO PATIENTS AT A SATELLITE CAMPUS THROUGH INNOVATIVE REMOTE FUNCTIONALITY**

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#### **Complex Research Designs and Advanced Methods**

Recent literature shows more than half of patients do not have access to clinical trials at their local health care facilities and are expected to travel on average more than 25 miles to a research center. At a large, academic medical center, the gynecology (GYN) clinical trials team recognized the need to offer clinical trials at satellite sites to increase enrollment and offer trials to

diverse patient populations. The purpose of this study is to increase GYN accruals at satellite sites utilizing remote clinical research nurses (CRNs). Beginning in August 2022, clinical trial support was provided to a satellite campus utilizing video conferencing platforms, telephone, and email. Creation of a detailed workflow was assembled and distributed to the Primary Investigator (PI) and team at the satellite location. Designated remote CRNs oversee the consenting process for English and non-English speaking patients, ensure all eligibility and enrollment requirements are fulfilled including: chest x-ray, pelvic MRI, lab tests, pregnancy test, and patient questionnaires. CRNs safeguard protocol specific documentation and assessments are completed, and carry out nursing assessments mandated by the protocol, including: pain assessments, pain medication usage, patient questionnaires administered by phone, and symptom management. CRNs also assure all future post-operative appointments are scheduled per protocol guidelines and protocol specific assessments are completed and documented. Between August 16, 2022 and September 26, 2022, three patients have consented and enrolled. Our facility's Quality Assurance Unit (QAU) proactively completes routine quality assurance (QA) reviews to assess clinical research documentation in preparation for potential monitoring visits. Despite this being a new innovative workflow, the first QA audit was passed successfully. Regulatory and clinical findings are addressed and re-education occurs as needed. Limitations of the study include small sample size and short intervention period. Using the many innovative platforms available in present-day, clinical research trials can reach facilities and patient populations that were previously untouched. Large academic medical centers with a robust research department and experienced clinical trials office can remotely support satellite facilities to successfully execute a clinical research trial. Remote CRNs are integral members of the team, supporting the unit through workflow management, ensuring all protocol requirements are fulfilled, and being a liaison between the patient and PI. Expanding access to clinical trials can lead to improved patient outcomes and safety.

### **P346 FEASIBILITY OF ENROLLING PATIENTS NEWLY DIAGNOSED WITH ACUTE MYELOID LEUKEMIA INTO A SYMPTOM SCIENCE STUDY WITH CORRELATIVE BLOOD SAMPLES**

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[Symptom Science](#)

Patients with cancer report an average of 10 to 14 co-occurring symptoms during and following treatment, a burden which has a negative impact on patients' physical and cognitive function and associated quality of life (QOL). Patients newly diagnosed with acute myeloid leukemia (AML) often present with prolonged symptoms that can also be prognostic; therefore, it is critical to monitor and manage symptoms during this phase. Better understanding of factors associated with a high symptom burden can lead to improved QOL and outcomes. The purpose was to test the feasibility of enrolling a small sample (N=10) of individuals newly diagnosed with AML into a symptom science study during hospitalization for induction chemotherapy. Blood samples for correlative science were also drawn. Prospective, longitudinal, observational study. Potential participants were identified by providers during weekly meetings. Inclusion criteria were: adults (>18 years old), new AML diagnosis, admitted for induction chemotherapy, ECOG of <3 or KPS >50 performance status, able to comprehend English, and provide informed consent. Exclusion criteria were: cognitive impairment, multiple primary cancers, or provider deemed inappropriate. Study design included blood sample collection at baseline and discharge and weekly symptom assessments over five weeks via phone. Enrollment and baseline data were collected within 72 hours of hospitalization. Feasibility was defined as >50% enrollment rate of approached eligible participants and >50% completion of five weekly outcome assessments. Between August 2021 and August 2022, among >100 newly diagnosed adults with AML, 37 were screened, 21 met the eligibility criteria, and seven enrolled. The primary reason for lack of eligibility was that >72 hours had passed since admission; the primary reasons for declining among the eligible were "feeling too overwhelmed" and/or high symptom severity. Of those on study, one participant completed all five weekly assessments, 57% completed three assessments, and 43% completed the final (week 4) assessment. Primary reasons for missing data were feeling too ill to answer the survey questions and/or temporary ICU transfers. While our findings demon-

strated lack of feasibility to enroll and assess symptom experiences through questionnaires in adult patients with AML during induction chemotherapy, monitoring symptoms is essential. Due to the crucial need to understand and manage symptoms, designing a symptom assessment tool that is nonburdensome to patients and seamlessly woven into routine care is recommended.

### **P347** **THE SILENT CAREGIVERS: EXPERIENCES, OUTCOMES, AND UNMET NEEDS OF YOUNG CARERS IN ONCOLOGY**

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[Survivorship and Palliative and Psychosocial Oncology Care](#)

Of the 17 million cancer cases diagnosed worldwide each year, 25% occur among individuals likely to be raising children. Cancer affects the whole family system causing families to reorganize their functioning, roles, and responsibilities. In the United States, approximately 5.4 million young carers (children, adolescents, and emerging adults (aged 8-24)) provide significant support to family members with a chronic illness or disability. As young carers, they provide multifaceted, extended care without any reduction in their other responsibilities. This role can result in both positive and negative outcomes-- creating psychosocial difficulties for young carers, but also fostering psychosocial growth, maturity, and an increase in the depth of family relationships. Furthermore, young carers provide care without the recognition, education, and support given to their adult caregiving counterparts. The purpose of this retrospective, cross-sectional study was to explore the caregiving experience, outcomes, and unmet needs of young carers in oncology to inform future intervention work. Adults who had previously lived with a parent who had cancer were recruited via social media. The resultant 52 participants were asked to complete a one-time, online, retrospective survey. Most participants were female (82.7%), White (92.2%), and caring for a mother with cancer (63.5%). The average reported age as a young carer was 16.13 (±4.86). They provided care an average of 22.43 hours/week for an average of 3.04 years. Thirty-nine participants said they would have identified their past self as a young carer. A majority (71.2%) reported high to very high amounts of caregiving activity, with the highest amounts relating to domestic activity, household management, and emotional



care. With both instances being a potential indicator of emotional distress, 47.1% reported few positive outcomes and 47% reported high negative outcomes. The highest reported unmet needs were those related to information, familial support, and dealing with feelings. Despite the lack of research, this study illustrates that young carers are providing care when their parents are diagnosed with cancer. They experience positive and negative outcomes and have unmet needs that can be addressed with targeted interventions. Clinicians need to be aware of the potential role changes children of parents with cancer may experience. Future research is needed to further explore young carers in the context of cancer and to develop targeted interventions that mitigate negative outcomes through the provision of education and support.

### **P348 ONCOLOGY NURSES' PERSPECTIVES ON THE DESIGN OF PHYSICAL ACTIVITY PROMOTION INTERVENTIONS FOR DELIVERY IN CLINICAL SETTINGS**

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Translation / Implementation Science

Over three decades of nursing research demonstrate the impact of physical activity (PA) on symptom management, quality of life, and long-term outcomes for individuals living with and beyond a cancer diagnosis. The American Cancer Society advises that these individuals engage in a minimum of 150 weekly minutes of moderate intensity PA; yet most do not meet these recommendations. Most patients report they have not been advised on the recommended PA, or of its benefits, and would like to receive this information from their oncology care team. Nurses may provide this needed education; however, to be successful, PA promotion interventions need to align with the clinical demands and perspectives of nurses who are providing care. The purpose was to understand oncology nurses' perspectives on the multi-level factors that influence nurses providing PA recommendations to patients, thus informing the design of interventions ready for

implementation in clinical practice. A cross-sectional survey was administered to oncology nurses (n=75). Nurses were eligible if they had been (1) a nurse for at least six months, and (2) provided care to oncology patients within the last year. Recruitment was completed via Facebook. Participants completed a previously published survey guided by the Consolidated Framework for Implementation Research (CIFR) that assesses multi-level factors that influence implementation of evidence in clinical practice. Quantitative data were analyzed using descriptive statistics. Qualitative data were analyzed using directed content analysis. Results revealed that oncology nurses endorsed the importance of providing PA education, yet face several barriers (e.g., conflicting clinical demands, insufficient education about PA guidelines, lack of resources). We identified specific intervention components (e.g., types of educational material, and location for delivery of PA education) that nurses believe are necessary for interventions to be effective and feasible. Findings from this study identify several factors that need to be considered at the time of intervention design. This approach is novel, as it moves beyond the traditional process of first designing and testing interventions to establish efficacy, and then tasking nurses to deliver effective interventions in clinical settings. This approach will lead to the development of interventions that are not only effective, but also feasible for nurses to deliver. This will increase the support that patients receive to engage in PA, improving their long-term cancer outcomes and quality of life.

### **P349 CANCER DISTRESS, PSYCHOLOGICAL TRAUMA, AND RESILIENCY IN HOSPITALIZED HEMATOPOIETIC STEM CELL TRANSPLANT PATIENTS**

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Survivorship and Palliative and Psychosocial Oncology Care

The hospitalization period for hematopoietic stem cell transplant (HSCT) can be particularly distressing due to the high burden of symptoms, adverse events, and uncertainty [5, 11]. Hospitalization can trigger peak psychological distress for HSCT patients, even if symptom distress is lower [5, 12]. The purpose of this study was to better understand the distress experience of patients undergoing HSCT during and following



hospitalization. The inpatient hospitalization period involves the most direct involvement of the health-care team and, therefore, creates a unique opportunity to address psychological distress. Since bedside nursing staff have the most direct contact with patients during this critical time, nursing interventions may be extremely beneficial. In order to develop future interventions, a better understanding of the trajectory of psychological responses during and following hospitalization for HSCT is needed. A longitudinal survey was conducted on 50 patients hospitalized for HSCT at three separate timepoints: the day of admission, the day of discharge, and 14 days post-discharge to assess their level of cancer distress, trauma symptoms, anxiety, depression, and resilience. Reliable and valid self-report instruments were used including the Cancer and Treatment Distress (CTXD), Primary Care-Post Traumatic Stress Disorder-5 (PC-PTSD-5), General Anxiety Disorder-2 (GAD-2), Patient Health Questionnaire-2 (PHQ-2), and Connor-Davidson Resilience Scale (CD-RISC). Levels of anxiety, depression, and resilience worsened over time and were highest at 14 days post-discharge. Trauma symptoms decreased over the course of the study and were lowest at 14 days post-discharge. Ages of participants ranged between 27-74 years with a mean of 58.32. Males were slightly more represented (n=28, 56%) versus females (n=22, 44%). The majority of patients underwent autologous stem cell transplants (n=27, 54%), followed by allogeneic (n=15, 30%), and haploidentical (n=8, 16%). The most common diagnoses were multiple myeloma (n=17, 34%), non-Hodgkins lymphoma (n=9, 18%), and myelodysplastic syndrome (n=7, 14%). Special attention to the psychological needs of patients during and following HSCT is warranted. Bedside nurses have the most frequent and direct contact with patients putting them in the best position to identify distress and implement appropriate interventions for optimal outcomes. Specific nursing interventions to address the psychological burden of patients during and following HSCT and improved resilience should be developed and tested.

### **P350** **WOMEN'S HEALTH BELIEFS AND** **INTENTIONS TO USE CHEMOPREVENTION** **FOR BREAST CANCER**

**Kristin Keller, RN, MS, PhD, Saint Louis University,  
Saint Louis, MO**

**Survivorship and Palliative and Psychosocial Oncology  
Care**

Women with a 20-25% chance of developing breast cancer in their lifetime are considered high-risk

and are eligible to take breast cancer chemopreventive medications. It is estimated that 15% of women in the US are eligible to take breast cancer chemoprevention, yet <5% of those women elect to use it. Therefore, we investigated the associations between women's health beliefs and their intentions to take chemoprevention. Specifically, we aimed to analyze the relationships between women's reported levels of breast cancer fatalism, fear, perceived threat, benefits, barriers, and self-efficacy and their intentions to take breast cancer chemoprevention. Post-menopausal women (n=400) aged 50-64 years old were recruited for a study on mammographic breast density. Women completed routine screening mammograms and questionnaires on breast cancer health beliefs. We regressed intentions to take breast cancer chemoprevention onto health belief scores (fatalism, benefits, barriers, self-efficacy, perceived threat, and fear). Nearly half of participants (n=183, 45.8%) indicated that they would be extremely interested in taking chemoprevention. Women who reported higher perceived benefits of chemoprevention (unstandardized B=.32; p=0.009, 95%CI: .078 to .559), higher perceptions of their ability to take chemoprevention (self-efficacy; unstandardized B=.56 p=0.003, 95%CI: .185 to .930), and fewer logistical barriers to seeking healthcare (unstandardized B=-.5; p<0.001, 95%CI: -.785 to -.210) had significantly higher intentions to take chemoprevention if they were found to be at high risk for developing breast cancer (F=11.391, adjusted R<sup>2</sup>=0.193, p<0.001). Fewer barriers to seeking healthcare (i.e., transportation, scheduling, cost) and self-efficacy to cope with those barriers strongly predicted women's intentions to take chemoprevention. Perceived benefits of taking chemoprevention were also positively associated with intentions to take chemoprevention. Thus, interventions aimed at reducing barriers to healthcare (i.e., patient navigation programs) stand to increase its uptake among at-risk women. Optimal healthcare provider counseling and patient education are important factors in the decision to take chemoprevention. Thus, more time should be allocated for discussions aimed at helping women make informed decisions about taking breast cancer chemoprevention. Additionally, women at the time of mammography and women with higher levels of education may be motivated to consider taking chemoprevention. Future implications for research include the development of interventions aimed at decreasing barriers, improving women's self-efficacy, and increasing their perception that chemoprevention will be beneficial.

### P351

#### FDA ACCELERATED APPROVAL: ONCOLOGY NURSE IMPLICATIONS WITH PI3K INHIBITORS

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##### Symptom Science

The Food and Drug Administration's (FDA) Accelerated Approval (AA) is a regulatory pathway to allow for earlier approval of products to treat serious or life-threatening diseases based on a surrogate or intermediate endpoint. Confirmatory or post approval studies are then required to verify the anticipated clinical benefit of that product. Failure to complete confirmatory trials with due diligence could result in removal of the drug or the AA indication from the U.S. market. On April 21, 2022, the FDA held a class-wide Oncologic Drug Advisory Committee (ODAC) to discuss the safety and approach for future approvals of phosphatidylinositol 3-kinase inhibitors (PI3Ki). To date, four PI3Ki drugs have received FDA AA for patients with relapsed or refractory indolent non-Hodgkin lymphoma (NHL). One of these products was voluntarily withdrawn from the market and the other products have voluntarily withdrawn specific NHL indications. A regulatory review was performed to assess the history of PI3Ki class to provide oncology nurses with a high-level overview of the AA regulatory framework and highlight the ongoing PI3Ki drug development concerns related to toxicity and implications in future oncology clinical trials. A synthesis table was created to compare the initial and confirmatory approval trials associated with the PI3Ki drugs, highlighting findings of worse overall survival and high rates of adverse events. Given the disease setting of indolent NHL the high toxicity profile of these drugs must be considered in patient populations where there is a long natural history and multiple therapies are available. Historically, PI3Ki drugs were granted AA in hematologic malignancies based on overall response rate in single-arm trials. The ODAC committee voted in favor that future approvals of PI3Ki should be based on randomized data versus single-arm trials due to the toxicity concerns and the potential impact on survival. Additionally, as part of ongoing drug development,

confirmatory studies should be in progress at the time a marketing application is seeking AA. Timely completion of these studies is important for ensuring safe and effective therapies are available to patients. Oncology nurses, especially those directly involved in clinical trials, are well positioned to improve future drug development in this space and should be familiar with the current regulatory landscape.

### P352

#### EFFECTS OF HORTICULTURAL THERAPY PROGRAMS ON HEALTH STATUS, QUALITY OF LIFE, PSYCHOLOGICAL SYMPTOMS, AND SELF-INTEGRATION OF CANCER SURVIVORS

Kwang Mi Lee, Professional Nurse, MS, National Cancer Center, Goyang, Korea; Se-Na Lee, PhD, RN, National Cancer Center, Goyang, Korea  
[Survivorship and Palliative and Psychosocial Oncology Care](#)

It has been reported that about 65% of cancer survivors experience physical, psychological, and clinical symptoms and side effects during diagnosis and treatment. They also reportedly struggled with a variety of issues during rehabilitation and social reintegration after completing cancer treatment. Agro-healing not only provides nature-based healing and care based on agriculture but also promotes social independence through health management, social rehabilitation, education, and expansion of employment opportunities. The goal of this study is to apply a horticultural therapy program for cancer survivors and examine the effects on their health status, quality of life, psychological symptoms, and self-integration. The study also provides an opportunity to systematically implement and develop social services linked to medical agriculture. 15 cancer survivors participated in a horticultural therapy program. The program was 12 times: once a week for 120 minutes from May 17 to August 2, 2022. The assessment tool was a single-group pre-post experimental design that included health status (fatigue, depression, loneliness), quality of life, psychological symptoms, and self-integration. The subjects were 15 women with an average age of 55.5 years. As for the history of cancer survivors, 11 patients (67.7%) had breast cancer. The survival period of cancer survivors was 375 (22-930) months. After participating in the horticultural therapy program, the subjects' scores of health status ( $p = 0.005$ ) and quality of life ( $p = 0.018$ ) showed statistically significant differences. There were no statistically significant differences observed in psychological symptoms and self-integration. Health status, quality of life, and self-integration were positively correlated. There

was a negative correlation between self-integration and psychological symptoms. This study showed that the scores for quality of life and health status improved after implementing the horticultural therapy program. Based on this finding, it is deduced that the horticultural therapy program can be utilized as an active nursing intervention for post-treatment rehabilitation and socio-recovery of cancer survivors.

### **P353 EFFECTS OF HORTICULTURAL THERAPY PROGRAMS ON HEALTH STATUS, QUALITY OF LIFE, PSYCHOLOGICAL SYMPTOMS, AND SELF-INTEGRATION OF CANCER SURVIVORS**

Kwang Mi Lee, Professional Nurse, MS, National Cancer Center, Goyang; Se-Na Lee, PhD, RN, National Cancer Center, Goyang, Korea

*Survivorship and Palliative and Psychosocial Oncology Care*

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### **P354 ENHANCING AND MONITORING FIDELITY IN A COMPLEX FAMILY CAREGIVER RANDOMIZED CONTROLLED TRIAL**

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*Complex Research Designs and Advanced Methods*

Lack of intervention fidelity, or the degree to which the intervention is delivered as intended, can be a serious threat to both internal and external validity. Components of fidelity include delivery, receipt, and enactment. Fidelity in complex clinical intervention studies is challenging due to the high number of interacting components, required behaviors by participants and interventionists, and outcomes measured. The clinical environment, factors related to serious illness, and the need to tailor family caregiver (CG) interventions introduce factors that may affect fidelity. Other issues not addressed in the literature include role blurring of the nurse interventionist (NI), CGs having needs outside the scope of the intervention, and pandemic-related factors such as modifications in intervention delivery mode and pauses in study enrollment. These factors have potential to cause intervention drift and negatively impact fidelity. The purpose of this presentation is to (1) describe strategies to enhance and monitor intervention fidelity and (2) report fidelity data for a randomized controlled trial (RCT) testing a CG intervention. The Building Family Caregiver Skills study (R37CA240707) is an ongoing, two-group RCT testing a psychoeducational intervention incorporating simulation techniques to support, educate, and train CGs of adult patients during radiation therapy for cancer. The intervention consists of four one-on-one sessions with a NI. Strategies implemented to enhance fidelity include standardized, ongoing training of NIs, weekly

interventionist meetings with the PI and Project Manager, and required completion of session checklists by the NIs in a fidelity database. Intervention fidelity is assessed via analysis of the database and PI intervention monitoring. Receipt and enactment of the intervention are captured by NI assessment and a participant survey, respectively. Of 54 CGs randomized to the intervention, 47 (87.0%) received all four sessions. Although NIs are covering the session topics 97 to 100% of the time, delivery modification was deemed necessary with 14 CGs (25.9%). Delivery fidelity is high with 91.4% agreement between the NI and PI when sessions are monitored. However, significant variations have been noted during the weekly NI meeting. Forty CGs (74.1%) report enactment of skills learned from the intervention. Planning for fidelity and adopting feasible strategies to enhance fidelity are essential for RCTs. Active monitoring through weekly NI meetings, which provide continued training and supervision, is crucial for identifying threats to fidelity that may not otherwise be captured in fidelity data monitoring.

### P355

#### EVALUATING THE USE OF AN AMINO ACID FOOD TO ALLEVIATE CHEMOTHERAPY INDUCED TOXICITY IN CANCER PATIENTS

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##### Symptom Science

Chemotherapy patients are at risk for experiencing treatment-related side effects related to global gastrointestinal (GI) mucosa injury leading to diarrhea, nausea, poor oral intake, and/or weight loss. Symptomatic patients often require unplanned visits to healthcare practitioners, outpatient IV fluid and electrolyte infusions, hospitalizations, and delays or alternations of cancer treatments. Quality of life and survival are negatively impacted by altered, recommended cancer treatments. Enterade is a commercially available amino acid-based, glucose-free, oral rehydration medical food. Statistically significant improvements in diarrhea, dehydration, and weight loss were reported by cancer patients receiving chemotherapy and/or radiation in a retrospective study using Enterade to alleviate GI toxicity. This evidence-based practice project will evaluate

self-report of GI symptoms, number of unplanned GI toxicity-related healthcare practitioner visits, number of IV fluid/electrolyte infusion visits needed after treatments, number of hospital days after treatments, alterations of treatment plan (dose delays/reductions, and/or missed/stopped treatments), and weight loss in chemotherapy patients with a high risk for GI toxicities who receive Enterade versus those who do not. Cancer patients scheduled to receive FOLFOX, FOLFIRI, FOLFIRINOX, or TCHP chemotherapy treatment regimens were invited to enroll in this study preceding initiation of their first chemotherapy treatment. Participants completed a survey recording baseline symptoms. Standardized surveys self-reporting participant symptom experience were completed prior to each treatment cycle. Patients reporting GI symptoms differing from the baseline assessment were provided 16 bottles of Enterade for each of their next three chemotherapy treatment visits. Retrospective data were extracted from 12 patient charts in each of the four chemotherapy regimens (n=48) treated without Enterade and were compared with data from 45 participants receiving Enterade. Data analysis is underway. Findings will be fully summarized and reported at the time of presentation. Discussion and implications for nursing science will be drawn from findings after data analysis.

### P356

#### CARING FOR THE CAREGIVER

Jennifer Oakvik, MSN, RN, CMSRN, Northwestern Memorial Hospital, Chicago, IL; Brianne Riley, MSN, RN, CNL, OCN®, Northwestern Memorial Hospital, Chicago, IL; Rachel Miller, BSN, RN, OCN®, Northwestern Memorial Hospital, Chicago, IL

##### Survivorship and Palliative and Psychosocial Oncology Care

The purpose of this study is threefold; (1) determine if nurses in oncology are experiencing compassion fatigue associated with symptoms of burnout, anger and fatigue (2) implement evidenced based clinical bereavement support interventions for nurse caregivers once a patient passes away whom they cared for at any point in time (3) evaluation of the impact of bereavement support interventions on perceived compassion fatigue using the ProQOL assessment tool. The research question is, "How will implementing bereavement interventions and support for oncology nurse caregivers impact perceived compassion fatigue?" What happen when a patient passes away? They are off to a better place, but their loved ones and the people caring for them are left behind to grieve. Nurses try to offer as much support as they can, but often find themselves too busy to take

time to reflect on the given situation. When a patient passes away, it leaves some nurses upset, angry, and even questioning if this is the right field for them. Data was collected using the ProQOL Version 5 and pre and post focus groups. Monthly remembrance meetings were held for three months. Debrief meetings were held as needed related to difficult deaths, post codes, and patients that were frequently admitted. Lastly, “compassion time” was implemented for nursing staff when a patient dies on their shift. Nurses will get 20 minutes to leave the floor, catch a break, and regroup. The buddy assigned will cover their patients. An analysis of a pre- and post-test (ProQOL) was completed using paired t-tests. With a sample size of  $n=16$ , we calculated 95% power to detect an effect size ( $d_z$ ) of 1.0 ( $p=.05$ ). A thematic analysis was also completed to summarize the overall themes from the transcriptions during the pre and post focus group. Findings are still being ironed out but the t-test is showing favorable results and based on the thematic analysis there was positive satisfaction amongst nursing staff. Qualitative data and quantitative data showed favorable results. Nursing developed more resilience and coping with death, felt supported after a death of their patient and reported a better understanding of resources offered. This project was intended to improve overall burnout, compassion fatigue and increase compassion satisfaction when caring for the oncology population.

### **P357 HIGHER LEVELS OF STATE ANXIETY IN PATIENTS RECEIVING CHEMOTHERAPY ARE ASSOCIATED WITH PERTURBATIONS IN PATHWAYS INVOLVED IN NEURODEGENERATION**

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Genetics / Genomics / Biosignatures

Over 40% of patients report high levels of anxiety at the time of their cancer diagnosis and during treatment.

High levels of anxiety are associated with inhibition of antitumor immune responses, treatment delays, prolonged duration of co-occurring symptoms, and decrements in quality of life. Untreated anxiety may contribute to disease recurrence and decreased survival. While neurodegeneration is associated with anxiety in other chronic conditions, little is known about the underlying mechanisms for this symptom in patients receiving chemotherapy. The study's purpose was to evaluate for perturbations in pathways involved in neurodegeneration across two independent samples of patients with cancer receiving chemotherapy who did and did not report state anxiety. In a previous latent profile analysis, subgroups of patients with distinct state anxiety profiles were identified. Anxiety was assessed six times over two cycles of chemotherapy using Spielberger State Anxiety Inventory. The four latent classes were named: Low, Moderate, High, and Very High based on clinically meaningful cutoff scores. The current analysis used an extreme phenotype approach to evaluate for pathway perturbations between patients in the Low compared to the High and Very High classes combined. Gene expression of total ribonucleic acid isolated from peripheral blood collected at enrollment was quantified for 247 patients using RNA-sequencing (i.e., RNA-seq sample) and for 256 patients using microarray (i.e., microarray sample). Differences in demographic and clinical characteristics were evaluated. Logistic regression analyses were used to determine covariates for inclusion in the differential expression analyses. Signaling pathways were defined using the Kyoto Encyclopedia of Genes and Genomes (KEGG) database. The significance of the combined transcriptome-wide pathway impact analysis (PIA) was assessed using a false discovery rate of 0.01. These results were evaluated for perturbed pathways involved in neurodegeneration. In the RNA-seq sample, 62.3% of patients were in the Low and 37.7% were in the High classes. In the microarray sample, 61.3% were in the Low and 38.7% were in the High classes. The combined PIA identified six perturbed signaling pathways that were related to neurodegeneration (e.g., Alzheimer disease, pathways of neurodegeneration – multiple diseases). This study is the first to describe perturbations in neurodegenerative pathways associated with state anxiety in patients with cancer receiving chemotherapy. These findings have the potential to identify new targets for therapeutics and lead to the development of interventions.

### **P358 EXPLORING THE USE OF EXPRESSIVE ARTS TO PROMOTE PSYCHOSOCIAL WELL-BEING**



## IN CAREGIVERS OF PEOPLE WITH CANCER: A SYSTEMATIC REVIEW

**Dona Ravandi**, Undergraduate Student, University of Texas at Austin, Austin, TX; **Catie Cleary, RN**, University of Texas at Austin, Austin, TX; **Vyshnavi Pottepalli**, Undergraduate Student, University of Texas at Austin, Austin, TX; **Zainah Siddiqi**, Undergraduate Student, University of Texas at Austin, Austin, TX; **Megan Thomas Hebdon**, PhD, DNP, RN, NP-c, University of Texas at Austin, Austin, TX; **Carolyn Phillips**, PhD, MSN, RN, AOCNP®, University of Texas at Austin, Austin, TX  
[Survivorship and Palliative and Psychosocial Oncology Care](#)

The purpose was to evaluate the use of expressive arts interventions (EAIs) for family caregivers (FCGs) of people with cancer. This is a sub-analysis from a larger systematic review examining the use of EAIs for any FCG. In this analysis, we describe the theoretical frameworks used to guide the interventions, the intervention characteristics, and the impact on psychosocial outcomes. Cancer FCGs experience significant stress and caregiver burden that contributes to poorer psychosocial, physical, spiritual, and financial well-being. EAIs can support FCGs to cope with stress and uncertainty by providing a unique avenue for emotional expression through writing, music, painting, and movement. The use of EAIs have been studied in many populations, yet there has not been a systematic review evaluating the use of EAIs in cancer FCGs. A systematic search was conducted in PubMed/MEDLINE, CINAHL, PsychInfo, and Web of Science for relevant articles between 2001-2021. Inclusion criteria included intervention studies that addressed emotional and psychosocial well-being of caregivers, expressive arts interventions, quantitative and mixed methods studies evaluating intervention effectiveness, and were written in English. This analysis is focused on studies involving cancer FCGs. Twenty-four studies were included in the larger systematic review. Six studies were implemented with cancer FCGs (n=285). Only two studies described theoretical frameworks used (A Dual Process Model and the End-of-Life Phase of the Experimental Theory). Three types of EAIs were used: music (n=2), visual arts (n=2), and narrative writing (n=2). Examples of EAIs include choir singing, writing, and art carts. Interventions were delivered in clinics, the community, and at home, and the delivery time ranged from a single 1-hour session to twelve weekly sessions. Improved outcomes (depression, anxiety, well-being, and caregiver burden) occurred in five of six studies. EAIs have the potential to improve psychosocial outcomes for cancer FCGs, yet in twenty-years, only six studies

have been conducted with this population. Moreover, only one study was implemented with bereaved FCGs, illustrating another area of needed research. EAIs are a tool oncology nurses can recommend to improve the psychosocial well-being of cancer FCGs. Furthermore, EAIs have the potential to be used with family dyads (patient and caregiver) or with the caregiver alone and can be designed for use throughout the cancer trajectory: diagnosis, survivorship, and in caregiver bereavement.

## P359 COORDINATION OF CARE IN INPATIENT ONCOLOGY

**Caricia Rodriguez**, BSN, RN, Duke Raleigh Hospital, Raleigh, NC  
[Healthcare Delivery](#)

At this community-based hospital, patients and healthcare team members reported a lack of clear and concise treatment and care planning for their hospitalization and moving forward. Based on diagnosis, the care team may include physical therapists, occupational therapists, speech therapists, dietitians, nursing staff, medical team, and specialists. The lack of clear communication and planning negatively impacted patient safety and satisfaction, as well as, efficiency of care. The purpose was to describe a Care Coordination initiative using the Lean A3 Model for quality improvements (CC-A3) in patient-centered care for communication and care planning. The CCA3 team was formed to perform current practice analyses, make recommendations, and initiate improvement strategies. Value Stream Mapping of observations was completed for all of the healthcare roles providing care on the oncology unit. Additional observations informed a root cause analysis of the unit environment and workflow. The CCA3 team created and implemented a care model: initially we began by organizing the patients that had 1 MD into one specific hallway, allowing the assignment to be structured geographically. After this model was put through multiple PDSA cycles it was seen that the best care model was aligning nursing, case management, PT and OT assignment to the MDs. This would provide at least a nurse, MD, case manager, PT and OT to be assigned to every patient. Throughout CCA3 model implementation, nursing teamwork as measured by daily surveys completed by staff improved an average of 21% over 6 months (range 20%-35%). Further, RN perceptions of feeling fulfillment at the end of their shift increased by an average of 21% over 6 months (range 20%-50%). As well, patient responses on discharge to "How well did your Care Team communicate your plan of care?" were

4.75 out of 5 (1= not well to 5= very well). Implementation of the CCA3 model has been successful at providing patient-centered communications and treatment/care planning. This has resulted in greater teamwork, improved team communications, perceptions of role fulfillment, and satisfied patients and families. Future improvements include advancing the CCA3 model across the patient trajectory as this community-based hospital has observed shifting of standard-of-care from inpatient to the ambulatory setting while complex symptom management continues to require hospitalization.

### **P360 FEASIBILITY OF NEUROTOXICITY MONITORING AT THE INFUSION CHAIRSIDE**

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#### **Symptom Science**

Neurotoxicity is a common complication of cancer treatment leading to life-long complications in cancer survivors; however, real-time neurotoxicity monitoring is not standard of care. The purpose of this study was to determine the feasibility of chairside neurotoxicity monitoring and evaluate the occurrence of neuropathy and hearing loss (ototoxicity) in patients receiving platinum-based chemotherapies. Patients were recruited from a 20-chair chemotherapy infusion center. After obtaining IRB approval, patients scheduled to receive a platinum-based chemotherapy regimen were enrolled in a prospective observational cohort study. Prior to each chemotherapy infusion, participants were invited to complete on-site, chairside, neurotoxicity assessments including air-conduction hearing testing, and the Chemotherapy-Induced Peripheral Neuropathy Assessment Tool (CIPNAT). Hearing tests were completed with a portable iPad at the chairside while patients received pre-medication therapy. The CIPNAT was available on the iPad or with pen and paper. Questions 1-4 on the CIPNAT were used to address neuropathy occurrence addressing chemotherapy induced numbness or tingling in hands or feet. Data was evaluated with frequencies and descriptive analysis. A total of 58 subjects were enrolled in the study. Baseline CIPNAT assessments were obtained from 48 patients measuring

neuropathy and hearing was measured in 40 patients prior to chemotherapy. Follow-up neuropathy surveys were obtained for 43 patients with 26 indicating they experienced chemotherapy induced neuropathy (60%). Follow-up hearing assessments were completed on 29 patients, with 18 presenting with clinically meaningful change in hearing indicating significant ototoxicity caused by chemotherapy (62%). Onset of neuropathy was as soon as cycle 2 with 90% of the 26 patients experiencing peripheral neuropathy indicating they have numbness or tingling in their hands or feet by cycle 5. Patients who receive platinum-based chemotherapies are at risk for lifelong complications including ototoxicity and neuropathy. On-site audiology screening is optimal for patients at risk for ototoxicity. Nurses are at the frontline for identifying symptoms and advocating for patient care. Patients readily accepted hearing and neurotoxicity screenings during chemotherapy appointments. Screening uncovered otherwise unknown toxicities of hearing loss (62%) and neuropathy (60%). There are currently no approved preventative or curative treatments for hearing loss and neuropathy caused by chemotherapy. Future studies should focus on preventative treatments for chemotherapy induced ototoxicity and neuropathy. Survivorship care should include audiology assessment and neurotoxicity evaluation throughout the patient's cancer journey.

### **P361 NURSING CIVILITY: APPLYING LESSONS LEARNED FROM THE FIELD TO THE ONCOLOGY SETTING**

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#### **Translation / Implementation Science**

The purpose of this qualitative study was to explore registered nurses' lived experiences of peer-to-peer incivility in the workplace. An aim of this study was to understand the participants' experiences of peer-to-peer incivility in the workplace, its effect on patient safety and nursing job satisfaction and retention. Descriptive phenomenology was used to understand the nurse's lived experience who has encountered peer-to-peer incivility in the workplace. Semi-structured interviews were conducted with participants with audiotapes transcribed and analyzed for common themes that represented the participants' experiences with peer-to-peer incivility. Through the process of phenomenological reduction, the researcher suspended beliefs, biases, and preconceived notions about the investigational phenomenon. Based on the findings of this study,

suggestions are offered for further research and required actions to elevate the work atmosphere of the nurse from uncivil to a healthy and professional workplace. There was no hierarchy of themes. All themes and subthemes were equally important. Two themes and five subthemes emerged from the participants' verbal descriptions. The participants revealed how their workplaces were highly competitive and that one had to fend for oneself in order to survive. Many of the participants verbalized that they did not feel supported by their peers. Participants chose words such as war, enemy, brutal and rival to describe their workplace. Experiences of competing and fighting with one another were shared and therefore, being in a war-zone, became apparent. Participants described how incivility in their workplace prevented them from being able to provide adequate care to their patients. Additionally, the participants revealed emotional, physical, and social consequences that directly or indirectly had an impact on them. Feelings of rejection, disrespect, not treated with dignity, and treated unjustly feeling demoralized and humiliated were common themes shared from the participants' experiences with peer-to-peer incivility in their workplace. The study findings have substantial implications for nursing education, nursing practice, nursing research, and nursing science. This investigation provides novel information about experiences with uncivil peers and relates the experience to being in a war-zone. Some participants shared their perceptions of the impact on safe patient care, retention of nurses, and medical costs. Finally, this study suggests what it is like to be a nurse who has experienced peer-to-peer incivility and how that experience has affected their decision to remain in their nursing position.

### **P362**

#### **TO TREAT OR NOT TO TREAT? EVALUATING ABNORMAL LABORATORY VALUES IN PATIENTS RECEIVING IMMUNE CHECKPOINT INHIBITORS**

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#### **Symptom Science**

In patients treated with immune checkpoint inhibitors (ICI), laboratory abnormalities have been associated with treatment delays or discontinuation. While diagnostics are increasingly important to ensure that risks associated with treatment are minimized, the specific treatment parameters and frequency of blood draws is

not as clear. We hypothesized that dose delays may not be necessary as the laboratory abnormalities are rarely clinically significant. Additionally, in patients who had uncomplicated induction with ICI, treatment modifications due to laboratory abnormalities are extremely rare and obtaining chemistry, hematology, pancreatic markers, and thyroid function tests prior to each cycle of therapy may not be necessary. An Institutional Review Board (IRB)-approved retrospective analysis of patients treated with ICI (Pembrolizumab) was completed. Pharmacy records, data-line reports, and charts of patients treated with commercial pembrolizumab were reviewed. Out of 211 selected records, 183 were evaluable for primary endpoint. Descriptive statistical analysis was performed. Treatment was delayed or discontinued in 78 out of 183 patients for various reasons, however, only 15 out of 78 dose delays were associated with clinically significant laboratory abnormalities. Of these patients, transaminitis was observed in 7 cases; significant pancreatic enzyme elevation was observed in 4 patients, 2 of which had clinical pancreatitis; nephrotoxicity was observed in 3 patients. Varying degrees of hyponatremia was observed in several patients but did not contribute to dose delays. Other endocrine abnormalities including thyroiditis, hypothyroidism and diabetes mellitus were observed but also did not result in dose delay. Significant thrombocytopenia and neutropenia were observed in two patients. In summary, most of the laboratory abnormalities associated with dose delays were based on chemistry evaluation, and only in two patients based on the hematology evaluation. The vast majority of the patients whose doses were delayed due to a laboratory abnormality had concurrent clinical toxicities. As such, hematologic evaluation prior to each dose of pembrolizumab might not be warranted. Chemistry evaluation in stable patients with no concurrent clinical toxicities might be reconsidered after completion of the induction period, given the earlier onset of these toxicities. Research analysis was limited by a relatively small, heterogeneous sample size, as some patients were pre-treated with immunotherapy that contributed to recurrence of laboratory abnormalities. Further research should be completed on the larger sample size of ICI-naïve patients.

### **P363**

#### **ASSOCIATIONS BETWEEN THE OCCURRENCE OF PALPITATIONS AND POLYMORPHISMS IN NEUROTRANSMITTER GENES IN WOMEN PRIOR TO BREAST CANCER SURGERY**

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#### Genetics / Genomics / Biosignatures

The purpose of this study was to evaluate for associations between the occurrence of palpitations and single nucleotide polymorphisms in neurotransmitter genes in women prior to breast cancer surgery. Palpitations are feelings of missed or irregular heartbeats or the sensation of heart racing/pounding. They occur in approximately 15% to 48% of women with breast cancer. However, little is known about the mechanisms that underlie the occurrence of palpitations. In this study that evaluated neuropathic pain and lymphedema, patients with breast cancer were recruited from a comprehensive cancer center, two public hospitals, and four community practices. Prior to surgery, 398 women completed questionnaires that obtained information on demographic and clinical characteristics, functional status (i.e., Karnofsky Performance Status scale), and comorbidity burden (i.e., Self-Administered Comorbidity Questionnaire) and blood was drawn for the genomic analyses. A single item from the Menopausal Symptoms Scale evaluated the occurrence of palpitations in the past week. Polymorphisms in 12 genes involved in various aspects of neurotransmission (e.g., serotonin metabolism) were evaluated. Differences in phenotypic characteristics between women with and without palpitations were evaluated using t-tests, Mann-Whitney U test, Chi-square test, and Fisher's Exact tests. Multiple logistic regression that controlled for significant covariates was used to evaluate associations between the occurrence of palpitations and single nucleotide polymorphisms and haplotypes in neurotransmitter genes. Women with palpitations reported lower annual income, poorer functional status, higher comorbidity burden, and higher rates of back pain. In logistic regression analyses, nine single nucleotide polymorphisms and two haplotypes in 11 genes (i.e., HTR1A rs6449693, TPH2 rs7955501, SLC6A2 rs17841327, SLC6A3 rs37022, COMT rs4646312, GCH1 rs17128050, ABCB1 HapBo1, SLC6A1 rs2601126, NPY rs16148, TAC1 rs1229434, TACR1 HapBo2) were associated with the occurrence of palpitations. Findings suggest that genes involved in serotonergic, catecholaminergic, and gamma-aminobutyric neurotransmission and drug metabolism are associated with the occurrence of palpitations in women prior to breast cancer surgery. Genomic markers of palpitations may provide

new insights into the mechanisms that underlie palpitations and assist with identification of high-risk patients. Understanding these mechanisms may help develop interventions to decrease the occurrence and/or severity of palpitations.

#### P364

#### PERCEIVED NURSING BARRIERS TO EARLY MOBILIZATION OF HOSPITALIZED PATIENTS

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#### Healthcare Delivery

Lack of early mobilization of hospitalized patients increases physical decline and increases deconditioning of multi system functions. Perceived barriers to Registered Nurses (RN) incorporating early patient mobility into nursing workflow has a direct impact on negative patient health outcomes. Decreasing nursing barriers to early mobilization may guide to the development of workflows which may positively impact discharge disposition. Lack of early mobilization of hospitalized patients increases physical decline and increases deconditioning of multi system functions. After admission functional decline can occur quickly and rapidly progress even with successful resolution to the acute medical illness. Medical knowledge is rapidly advancing, and the importance of quality of life and positive health outcomes acknowledges early mobilization is important to improve the physical functioning of hospitalized patients. The immobilized patient is placed at a higher risk to acquire pressure ulcers, increased urinary tract infections, (UTI), hospital acquired pneumonia (HAP), and forming deep vein thrombosis, (DVT). The purpose of this study is to evaluate the impact of an educational intervention on the perceived barriers to early mobilization of inpatient hospitalized patients among RNs. The results of this study may be used to guide future educational sessions on evidence-based practices promoting nurses initiating early mobilization of inpatient hospitalized patients. EBP questions are as follows: RQ1: Is there a difference in perceived nursing barriers before and after an educational intervention focused on early mobility? RQ2: Is there a difference in perceived nursing barriers before and after an educational intervention focused on early mobility based on group demographics? RQ3: Is there an increase in Registered Nurse perceived importance in early mobilization of hospitalized patients after educational intervention? A quasi experimental, pre-test –post-post design will be used to compare the effectiveness of an educational intervention session on the perceived nursing barriers to early mobilization of hospitalized patients. Nursing



perceived barriers prior to an educational intervention will be compared to those identified post intervention. Outcomes: It is expected those Registered Nurses who participate in the educational intervention will identify perceived nursing barriers to early mobilization and increase nursing importance of early mobilization. This study will identify nursing perceived barriers to early mobilization in an effort to reduce barriers and improve health outcomes of hospitalized patients.

### **P365 SUPPORTIVE ONCOLOGY CARE IN THE HOME FOR RECENTLY HOSPITALIZED PATIENTS WITH ADVANCED CANCER**

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#### **Healthcare Delivery**

Patients with advanced cancer often experience frequent and prolonged hospitalizations. The transition from hospital to home represents a critical period as this population nearing the end of their life prefers to maximize time at home and avoid readmissions. We sought to demonstrate the feasibility and acceptability of a Supportive Oncology Care at Home intervention to address the post-discharge needs of recently hospitalized patients with advanced cancer. We conducted a single-arm pilot trial with Massachusetts General Hospital (MGH). We enrolled adults with advanced solid tumors experiencing their second or later unplanned hospitalization, who were being discharged home without hospice services. The intervention consisted of a 24/7 hospital in the home care model for proactive symptom assessment and in-home clinical management. This included 1) daily remote monitoring of patient-reported symptoms, vital signs, and body weight, virtual RN triage for symptom escalation via a tablet and phone both with direct RN access, and rapid response services to be deployed as needed; 2) in-home clinician visits for prevention of escalations and treatment of reported symptoms and 3) structured communication with the primary oncology team. The primary endpoint of the study was feasibility, defined as  $\geq 60\%$  of approached and eligible patients enrolling and  $\geq 60\%$  of participants completing daily symptom assessments. Patients also rated the helpfulness and convenience of the intervention and symptom moni-

toring technology. From 12/2021-6/2022, we enrolled 41 out of 67 approached patients (61.2% enrollment rate). Enrolled patients (median age=58.5 years, 50% female, 77% white, 67% married, 53% gastrointestinal cancers) completed 91.1% of daily symptom assessments. 14 patients (30%) did not complete the intervention due to withdrawal (5), hospice transfer (5), or death (3). Among enrolled patients, 20.0% were enrolled in hospice and 13.3% died at 30 days after hospital discharge. In exit interviews, 100% and 77% rated the intervention and symptom monitoring as helpful, respectively. We found that a three-week Supportive Oncology Care at Home intervention is a feasible approach to providing post-discharge care for seriously ill, hospitalized patients with advanced cancer. These patients also found the intervention highly acceptable. Future studies will test the efficacy of this intervention.

### **P366 RECRUITMENT AND RETENTION OF PATIENT-PARTNER DYADS FROM A CANCER REGISTRY FOR AN E-HEALTH INTERVENTION DELIVERED IN A RANDOMIZED CONTROLLED TRIAL**

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#### **Healthcare Delivery**

Randomized clinical trials (RCT) that test the effects of dyadic interventions often face challenges in recruitment and retention. Because most cancer-focused RCTs recruit convenience samples from local cancer centers and hospitals, little is known about recruitment and retention using a population-based cancer cohort. This study describes the recruitment and retention of patient-partner dyads using a cancer registry to obtain participants for an RCT testing the efficacy of a dyadic, tailored eHealth intervention to improve quality of



life in patients with prostate cancer and their partners. This study was a two-arm, parallel groups RCT. Men who recently completed treatment for localized prostate cancer were recruited from the North Carolina Central Cancer Registry Rapid Case Ascertainment (NCCCR RCA) from April 2018 to February 2021. Notably, recruitment coincided with the COVID-19 pandemic. After receiving a list of patients from the NCCCR RCA, we mailed patients' physicians an introductory letter that included the ability to opt out if they preferred that their patient(s) not participate. Next, introductory letters were mailed to patients, who were further screened for eligibility, invited to participate, and asked for permission to contact their partner. Using the same procedure, we obtained informed consent from the partners for their study participation. After baseline assessments, patient-partner dyads were randomly assigned to the intervention or control group. Dyads completed follow-up surveys 4-, 8-, and 12-month post-baseline. Data for this report were extracted from the research administrative log and analyzed using descriptive analyses. See the Consort Diagram (Fig.1) for participant flow through the study. Of 3,078 patients referred from RCA, 2,899 were contacted for screening; 2,195 partners were approached after obtaining patients' permission; 280 patient-partner dyads completed baseline assessments and were randomized (enrollment rate: 12.76%; 95% CI (11.39%, 14.22%); and 221 dyads completed the 12-month follow-up (retention rate: 78.93%; 95% CI (73.68%, 83.56%). Referral and recruitment were significantly affected by the pandemic. Conclusions: Despite the negative impacts of the COVID-19 pandemic, we used the NCCCR RCA to achieve a recruitment rate for patient-partner dyads that was equivalent to other epidemiologic cohort studies. Our retention rate was higher than the retention rates in most dyadic intervention studies (69%). A well-functioning research team and specific strategies (e.g. eHealth intervention, Internet phone, online surveys) facilitated recruitment and retention in this population-based, dyadic study with cancer patients and their partners.

### **P367 FALLS AND FALL RISK FACTORS IN HOSPITALIZED BLOOD AND MARROW TRANSPLANT PATIENTS**

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[Healthcare Delivery](#)

Certain types of cancer and treatment increase the

risk of falls among cancer patients, particularly hematologic cancer patients undergoing blood and marrow transplant (BMT). Nurses are integral to preventing falls and maintaining patient safety. Understanding the BMT patient fall risk factors may help nurses identify high fall risk patients and develop fall prevention interventions. This project aims to summarize the literature and identify risk factors for falls among adult BMT patients receiving treatment in a hospital unit. The literature search was guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses. Study quality was evaluated using the Crowe Critical Appraisal Tool form (v1.4). Literature was searched without a date constraint in September 2019, and updated in March 2021, using the online databases PubMed and CINAHL. The search terms included fall or fall risk, and stem cell transplant, bone marrow transplant, or blood and marrow transplant. An initial search yielded 829 articles; six were included for final review after removing duplicates and screening for inclusion criteria: specific to BMT patients, measure fall outcome, in hospital, and original research. The identified risk factors include age of 65 and older, leukemia diagnosis, days of diarrhea, incontinence of urine or stool, increased pulse rate, muscle weakness, hypnotic, anxiolytic medication, recent steroid use, allogeneic transplant, and post-engraftment period. Further studies are needed to identify reasons for increased fall risk in BMT patients. BMT nurses need to assess and increase nurse surveillance on allogeneic transplant patients, specifically those on anxiolytic, hypnotic, and steroid medications. BMT nurses should implement more fall prevention strategies in BMT patients who develop diarrhea and urine or stool incontinence. Risk factors for falls among BMT patients are multifactorial and may be related to muscle weakness, medication administration, pulse rate, type of transplant, age, engraftment period, and bathroom use. Identifying specific BMT patient fall risk factors and implementing strategies to decrease fall risk and prevent falls can empower nurses to prevent complications and improve the nursing care of BMT patients.

### **P368 THE MIRROR VIEWING EXPERIENCE AFTER MASTECTOMY: AN INTEGRATIVE REVIEW**

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Our body image impacts all aspects of our lives,

including our physical and mental well-being. It encompasses our thoughts and emotions about how we see ourselves in the mirror. Undergoing a mastectomy can significantly magnify how a woman perceives and views her body image. Mirrors play a critical role in this process, yet they are seldom discussed. The purpose of this integrative review was to explore and synthesize the current evidence examining women's mirror viewing experiences post-mastectomy. Using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) methodology, the PubMed, CINAHL, Academic Search Complete, and Google Scholar databases were searched using the keywords mastectomy, mirror, appearance, and body image. Articles were limited to peer-reviewed studies published in English from April 2012 to 2022. A total of 1,462 studies were found, which were narrowed to 18 studies that met the inclusion criteria. Included articles required the term "mirror" in the body of the text. Articles were evaluated using the Johns Hopkins evidence-based practice appraisal instrument. Whittemore and Knaf's (2005) integrative review approach and Braun and Clarke's (2006) thematic analysis were utilized for this review. The mirror viewing experiences of women undergoing a mastectomy were clustered into five major themes: (a) mirror viewing motives, (b) mirror viewing preparedness, (c) mirror viewing experience, (d) mirror comfort/avoidance, and (e) women's mirror viewing recommendations. Women reported feeling disfigured, shocked, and paralyzed with fright when looking in the mirror. Some women did not recognize themselves. Others struggled to look at their mastectomy site, avoiding mirrors when possible. The review findings corresponded with Freysteinson's (2020) Neurocognitive Mirror Viewing Model emphasizing the autonomic nervous system response and short-term memory disturbance that can result in a flight/fright or faint response, mirror trauma, and mirror avoidance during the mirror viewing experience. Women described the unpreparedness they felt prior to viewing themselves in the mirror. Some women coped with the trauma and emotional distress of seeing their new body image through mirror avoidance behaviors. The implementation of nurse-driven mirror viewing interventions may help mitigate the autonomic nervous system response that can occur in some women and promote mirror viewing comfort. Providing women with mirror viewing support and a safe environment for viewing may minimize the psychological distress and body image discomfort that women undergoing a mastectomy may experience.

### P369

#### A SCOPING REVIEW OF UNMET NEEDS IN INFORMAL CAREGIVERS OF GYNECOLOGIC CANCER PATIENTS

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Informal caregivers (e.g., friends, family members) of cancer patients have increasing unmet needs due to shorter hospitalizations, and increased hours of home-care. Those unmet needs cause increased distress and neglect of their own health. Informal caregivers of gynecologic cancer patients have more and special needs associated with unique characteristics of diseases. A comprehensive understanding of unmet needs among caregivers of gynecologic cancer patients can lead to studies to address scientific gaps and guide future interventions. The purpose was to identify the current evidence in unmet needs of gynecologic cancer patients' informal caregivers. We searched four databases (PubMed, Web of Science, PsycInfo, and Embase) and extracted articles published from 9/2010 through 5/2022 following Khalil's framework. Mesh terms such as "Urogenital Neoplasms", "Caregivers", "Health Services Needs and Demands" were used for the review. Inclusion criteria were: informal caregivers of gynecologic cancer patients at all stages, and 18 years. Any articles with formal caregivers (e.g., oncologists, nurses), non-adult caregivers, or informal caregivers of non-gynecologic cancer (e.g., breast cancer) were excluded. A total of 520 articles were identified, and fourteen studies met the criteria with five quantitative (longitudinal, cross-sectional) and nine qualitative (interviews, online forums, survey) studies. Majority of caregivers were Caucasian (4/14), male (9/14), being a spouse/partner (7/14), and caring for ovarian (6/14) or cervical cancer (5/14). Top five reported unmet needs were: information (12/14), good communication with providers (6/14), taking care of themselves (6/14), social support (6/14), and sexual life support (5/14). Unmet needs during pre-diagnostic and end-of-life period were indicated. Various needs assessment tools (e.g., SCNS-carers, CNAT-C) were utilized; however, each tool was used once. We found that informal caregivers of gynecologic cancer patients had a wide range of unmet needs, which could be different during specific phases of the cancer trajectory. Information need was most

frequently reported except pre-diagnosis phase when caregivers may not need information. Studies using online forums indicated a potential venue to understand their unmet needs. The lack of diversity (e.g., gender, ethnicity) in participants, and no unified assessment tool were limitations. Future studies should expand recruitment to include diverse groups, specifically identify their needs under each category, and develop a gold-standard tool for needs assessment in informal caregivers.

### **P370 FAMILY NEEDS IN COUPLES COPING WITH AN INCURABLE CANCER WHILE PARENTING YOUNG CHILDREN**

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While parenting concerns are common, advanced cancer patients and spousal caregivers report that they are not well supported by oncology providers in this regard and desire support related to their parenting concerns. As the ill parent's performance status declines, the spousal caregiver's caretaking responsibilities significantly increase as they do not only provide emotional and physical support to the patient, but typically assume the patient's parenting role as well as maintain their own including helping the child(ren) cope with the parental cancer. Despite an increasing recognition of the impact of parenting caregiving on minor children in the literature, intervention research is generally lacking. To fill this crucial knowledge gap, we report the findings of a qualitative study involving patients and their partners who parent minor children to learn about the specific concerns including the supportive care needs of spousal caregivers who are faced with the challenges associated with caring for an ill partner

while parenting young children. 23 dyads (advanced cancer patients and partners) participated in single qualitative interviews. Content analysis was used to identify themes related to parental and familial needs. Findings Patients (mean age=45 years, 46% female, 70% non-Hispanic White) and spouses (mean age=46 years, 54% female, 58% non-Hispanic White) described variability in parenting and familial needs. Children's ages ranged from 22 months to 19 years old. Parents described disruptions in family routines and traditions related to the cancer diagnosis and treatment. Parents reported navigating meeting the day-to-day needs of their family during cancer treatment, which included helping children with school work, managing house-keeping tasks, meal preparation, childcare, physically caring for children, and providing transportation for children. In addition, parents reported family finance concerns and disruption to employment. Parents described accessing their support network consisting of family and friends to meet these needs, but worried about burdening others and the impact of proxy-parenting on their children when they were unable to parent themselves. Co-parents navigate challenges related to maintaining family routine and traditions, along with day-to-day activities while a parent is undergoing treatment for advanced cancer. Couples are reliant on their support network to meet the needs of their family during treatment for advanced cancer. Interventions are needed to support parents in navigating disruptions to family life when a parent is diagnosed with advanced cancer.

### **P371 A NETWORK ANALYSIS OF COMORBIDITIES AMONG OVARIAN CANCER PATIENTS USING A SURVEILLANCE, EPIDEMIOLOGY, AND END RESULTS(SEER) CANCER REGISTRY**

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[Data Science](#)

Ovarian cancer (OvCa) patients often live with multiple comorbidities, influencing treatment and causing

a decreased quality of life. A better understanding of these comorbidities would inform more individualized clinical management; however, most studies examine a priori selected lists of comorbidities with high prevalence (e.g., hypertension, diabetes) or comorbidity index scores which can limit understanding of interactions among all commonly documented comorbidities in International Classification of Diseases (ICD) code. The study aims to identify influential comorbidities among individuals with OvCa using network analysis. The study used 10-years of OvCa registry data in Pennsylvania recorded from 2007 to 2017. The data included 2,639 OvCa patients in total. The registry used the 9th revision of ICD (ICD-9) code to record comorbidities. We used a frequent pattern growth algorithm to infer associations between comorbidities retrospectively. Then Cytoscape 3.9.1 was used to establish the comorbidity network and identify influential comorbidities by calculating the degree and betweenness centrality among comorbidities. The definition of the primary features of network was presented in Table 1. After excluding patients without comorbidities, we found 98 comorbidities among 2,243 patients with an average age of 64.3 (SD=0.28). Hypertension (n=663), disorders of lipid metabolism (n=336), symptoms involving abdomen and pelvis (n=316) were the most frequently recorded comorbidities. Pulmonary collapse, cardiac dysrhythmias, abdominal or pelvic swelling mass or lump, ascites, and anxiety were the most influential comorbidities since they are connected with many other comorbidities (28,27,27,27,26 in degree centrality respectively). Anemias, obesity, and disorders of lipid metabolism have the highest betweenness centrality (0.12, 0.10, 0.10, respectively), indicating these tends to bridge between other comorbidities which are not related. For OvCa patients, their abdominal or pelvic symptoms mostly co-occurred with anemias, pulmonary collapse, and intestinal obstruction. The comorbidity network layout is shown in Figure 1. The wide range of comorbidities among OvCa patients was presented using network analysis. We found that comorbidities with high frequency are not the same as influential comorbidities in the network (e.g., comorbidities with highly connected to other diseases). This can suggest that frequency may not be the only factor we need to consider. The current cancer registry only records whether this patient had the comorbidity or not, which can limit our understanding about the casual relationships between comorbidities. Further study is needed to consider when a patient had comorbidities.

### P372

#### MUSCULOSKELETAL PAIN WITH TREATMENT OF AROMATASE INHIBITORS FOR BREAST CANCER: INTER-INDIVIDUAL VARIABILITY, AND DEMOGRAPHIC, CLINICAL AND GENETIC PREDICTORS

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##### Symptom Science

Musculoskeletal pain is the number one contributor to the high discontinuation rate of aromatase inhibitors (AIs) for breast cancer. The purpose of this ancillary study was to longitudinally examine the inter-individual variability of musculoskeletal pain and its predictors during the first 18 months of AI therapy among postmenopausal women with breast cancer. Pain (Brief Pain Inventory) and musculoskeletal symptoms (Breast Cancer Prevention Trial Symptom Inventory, Musculoskeletal Subscale) were assessed at pre-, and 6, 12, 18 months post-initiation of anastrozole for a breast cancer cohort and a cohort of women without breast cancer at corresponding timepoints (n=380). Forty-six candidate single nucleotide polymorphisms (SNPs) were genotyped for participants who provided bio-banked DNA (n=243). Group-based trajectory modeling was performed to identify latent classes of 18-month trajectories for pain and musculoskeletal symptoms. Multivariate multinomial logistic regression was conducted to examine the associated demographic, clinical, and genetic factors. A significant proportion of women experienced mild or moderate pain (mild 45.1%, moderate 20.7%) and musculoskeletal symptoms (mild 39.7%, moderate 10.5%) in a persistent or linearly increasing manner over the first 18 months of AI therapy. A profile of protective and risk factors across pain and musculoskeletal symptoms were identified. The protective phenotypic factors included older age, receipt of chemotherapy, older first menstrual period age, married/partnered, having an administrative level of occupation (vs unskilled/unemployed), having a regular period for most of life, greater numbers of pregnancies, and having a history of tubal ligation. The phenotypic risk factors included receipt of AI therapy, greater anxiety/pain severity/depressive symptoms/fatigue at baseline, and having history of arthritis, hysterectomy, or menopausal

symptoms. Variations in CYP19A1 (rs1008805) and NOS3 (rs1799983) were associated with membership across pain and musculoskeletal symptoms. The protective polymorphisms included: BDNFRs6265, COMT rs4633 and rs887200, CXCL8 rs4073, ESR2 rs2772163, IL1B rs16944, RANKL rs1054016, VDRrs4516035 and rs731236. The risk polymorphisms included: CYP19A1 rs1008805, CYP3A4 rs35599367, COMTrs165774, NOS3 rs1799983, OPG rs2073618, OPRM1 rs1799971, and TC-

L1A rs7158782 and rs7159713. Our results support the longitudinal inter-individual variability in musculoskeletal pain with AI therapy for breast cancer. A comprehensive set of risk factors are profiled for clinical high-risk subgroup screening. To the authors' knowledge, this is one of the first studies to characterize the longitudinal inter-individual variability and its protective/risk predictors to musculoskeletal pain with AI therapy in breast cancer.