LETTERS TO THE EDITOR

Is "Tolerance" Seen With Morphine Related to the Metabolite?

I read "Understanding Opioid Tolerance in Cancer Pain" by Jormain Cady, ARNP, MS, AOCN®, in the November/December 2001 *Oncology Nursing Forum* ([*ONF*], Vol. 28, pp. 1561–1568) and was grateful for a very interesting and informative piece.

Under the "Risk" subhead, the author mentions that there was difficulty in the animal model in "differentiating whether the evidence was true tolerance to opioids or an opioid-induced hyperalgesic state" (p. 1562) because high concentrations of $MS0_4$ or its metabolites have been associated with these types of neurotoxicities. With our new understanding of the neurotoxicities associated with accumulation of M3 glucuronide of morphine (e.g., hyperalgesia, delirium, myoclonus), is it possible that much of the "tolerance" seen with morphine might relate to the metabolite and not true tolerance? Additionally, do the other opioids—oxycodone, hydromorphone, fentanyl—exhibit an equal amount of tolerance as that seen is $MS0_4$?

My question is born out of an experience that I had eight years ago, before my mother passed away from renal cell carcinoma. She had only one kidney left, with diffuse metastasis to the bone. Her last weeks were spent in a significant amount of confusion and what seemed to me to be intense pain, despite the continued efforts of hospice to manage the pain. My lingering question is what would have been the outcome had we switched her to hydromorphone?

Thom Dwan, BS
Professional Sales Representative
Purdue Pharma, LP
Tucson, AZ

The Author Responds

Thank you for your thoughtful question. Tolerance is defined as a requirement for increasing the amount of opioid to achieve the same analgesic effect and is not necessarily associated with the neurotoxicity you describe (hyperalgesia, delirium, monoclonus). Certainly, higher doses of opioid analgesia may contribute to these symptoms regardless of whether clinically significant tolerance is present. Although it is understood that incomplete cross-tolerance develops between opioids, other pure opioid agonists (e.g., oxycodone, hydromorphone) do not appear to have a significantly different risk for tolerance development. A trial of an alternative opioid, such as hydromorphone, may have temporarily reduced your mother's total opioid requirement to achieve comfort. However, given her clinical condition (renal insufficiency and possible other electrolyte abnormalities associated with this), whether this intervention would have had any meaningful or sustained impact on her confusion is difficult to determine.

Jormain Cady, ARNP, MS, AOCN®
Clinical Research Coordinator
Virginia Mason Medical Center
Anesthesiology
Seattle, WA

Does Venlafaxine Affect Libido?

I appreciated "Venlafaxine for the Control of Hot Flashes: Results of a Longitudinal Continuation Study" (*ONF,* Vol. 29, pp. 33–40) by Debra Barton, RN, PhD, and colleagues. Have the authors ever used this drug to treat reduction in libido or noticed anecdotally any changes in libido/sexual function? I see a lot of suppressed libido secondary to opioids.

Judith A. Paice, PhD, RN, FAAN
Palliative Care and Home Hospice Program
Northwestern University Medical School
Division of Hematology/Oncology
Chicago, IL

The Author Responds

Unfortunately, some people who have been on venlafaxine for a long time report some decreased libido that they believe is secondary to the drug. Nonetheless, in a randomized, placebo-controlled trial (Loprinzi et al., 2000), we saw no detrimental effect from venlafaxine on libido at all during the four-week study period; in fact, libido increased in each of the patient groups on this trial. It might have been that the hot flash reduction seen in this trial decreased night sweats so that women slept better, thereby improving their libido on subsequent evenings. The long-term effect of venlafaxine on libido is not clear, as long-term placebo-controlled trials examining libido issues in women (as opposed to sexual dysfunction issues in men) have not been conducted, to my knowledge. The *Physician's Desk Reference* (2002) cites "orgasm disturbance" in women, which is 2% compared to placebo and also is thought to be dose dependent. This number does not appear to be based on extensive research. Some of the newer antidepressants have been claimed to be associated with sexuality problems. However, little actually is established about the incidence of sexual dysfunction with these newer antidepressants.

I routinely ask the women for whom I care who have been on venlafaxine for more than six months whether they have noted any libido changes that they feel are attributed to the medication, and the majority answer no. To definitively answer the question of whether 75 mg of venlafaxine daily negatively affects libido over time, a placebo-controlled trial of at least six-months duration using the low dose of venlafaxine ideally would be conducted.

Debra Barton, RN, PhD
Mayo Clinic Cancer Control/Symptom
Management Research
Rochester, MN

Loprinzi, C.L., Kugler, J.W., Sloan, J.A., Mailliard, J.A., LaVasseur, B.I., Barton, D.L., et al. (2000). Venlafaxine in management of hot flashes in survivors of breast cancer: A randomised controlled trial. *Lancet, 356,* 2059–2063.

Nurse Practitioners in Academic Setting Looking for Answers

The group of practitioners to which I belong enjoyed "The Emerging Role of the Oncology Nurse Practitioner: A Collaborative Model Within the Private Practice Setting" (*ONF,* Vol. 28, pp. 1425–1431), by Nancy Jo Bush, RN, MN, MA, AOCN®, ONP, and Tammy Watters, RN, MSN, ONP. We are a group of three struggling nurse practitioners (NPs) with many of the same practice issues but within an academic practice setting. We have some questions about practice time issues.

How many patients do you see in a given day per week? How many days do you see patients? Do your MD colleagues support your taking time for office management of such patients? If so, how much time do you take per week? Is that time you want or time your MD colleagues request you take?

We are in a position where two new surgical oncology MDs have been added to the practice. They expect a 20% volume increase in our workload. We are expected to be in clinic every day seeing 15–30 patients. How usual is this load in your experience?

Susan McKenney, RNC, MSN, OCN®
Assistant Professor
Department of Surgery
University of North Carolina
Medical School
Chapel Hill, NC

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The Author Responds

Thank you for your positive feedback. This article was a "lived" experience as I carved out the NP role in the private practice setting where I work. I hope that I can help in answering your questions, but many differences exist in our situations (e.g., private practice versus university setting, full-time NP position versus joint practice) that make the demands of our practice settings very different.

In addition to my NP position, I teach in the oncology NP graduate program at the University of California, Los Angeles, so my joint practice hours often change. For my clinical practice, I try to work a full day on Mondays, then I do three clinic days from 8:30 am to 1–2 pm, depending on the caseload. On Monday mornings, I see only three to four follow-up patients and the rest of the morning is spent on administrative work (e.g., follow-up phone calls to patients, paperwork, charting). On Monday afternoons and the other clinic days, my MD colleague and I see an average of 20–30 patients. In a 20-patient caseload, there will be a mix of follow-up comprehensive exam patients, follow-up episodic exams for chemotherapy or radiation recipients, and follow-up supportive care patients.

I do see all of the patient follow-ups listed above. I do not do initial comprehensive consultations because my MD colleague feels it is important for him to have this initial contact with each patient. I do meet patients at their initial comprehensive visit, when I am in clinic, to introduce the patient and family to the fact that an NP is a part of the practice and may be seeing them for follow-up visits. How many patients I see in a four- to five-hour clinic depends on the type of patient. I usually spend a minimum of a half-hour with a patient receiving a comprehensive follow-up (e.g., a full physical exam on a patient with breast cancer being seen every three to six months after treatment). For patients who need chemotherapy follow-up, usually a 15-minute episodic exam is allotted. If I were to try to give you an average, it would be anywhere from 8–10 patients on a clinic day (over four to five hours).

I also may administer chemotherapy, as my MD colleague also does, if the chemotherapy nurse is ill or on vacation. I do not routinely perform bone marrow biopsies—my MD colleague does. My preference is to teach or counsel patients. I also do a lot of education in the chemotherapy room in between seeing patients. I lead a support group once a month and sometimes do hospital rounds with my MD colleague. Because I am salaried, none of these activities are calculated into my hours or pay, and neither I nor my colleague actually "count" my hours per week. This can be an advantage or disadvantage depending on the NP's work setting.

I have seen 15–25 patients in one day when my MD colleague is on vacation or out of the office. To me, this is a very heavy load, and I am often left to complete charting, make follow-up phone calls, etc., in overtime hours.

I work primarily with one of the two MDs in our practice—mainly because he is the busier physician and was responsible for hiring me directly. This makes it easier for me to negotiate with him for job responsibilities, time allotted, etc.

I think that if an NP is seeing a heavy caseload, time for administrative tasks must be negotiated. Even returning patient phone calls can be time consuming. You may want to contact NPs who work in settings similar to yours to see how they answer these questions.

I would like to see more literature on the role functions and demands of oncology NPs in different settings. That is one of the reasons I wrote this article. I teach in our program, and not many resources or references were available specifically for oncology nurses who are carving out these roles in different settings. I am sure that our job descriptions, salaries, and the philosophies of our MD colleagues are very different.

Nancy Jo Bush, RN, MN, AOCN®, MA
School of Nursing
University of California
Los Angeles, CA

Reader Has Concerns About Advanced Practice Nursing in the Rural Setting

Thank you for the informative and articulate article, "Advanced Practice Nursing: Reflections on the Past" (*ONF,* Vol. 29, pp. 106–112), by Kathleen Murphy-Ende, RN, PhD, AOCN®). I currently am struggling with concerns about advanced practice nursing, and I wonder if the author could offer some more information and advice.

I have practiced as an oncology nurse for the past 11 years. I have a bachelor's degree, as well as certification in adult oncology. I have been an OCN® for the past four years. I currently work as a case manager and primary-care clinician in oncology. I have been employed in a rural healthcare setting for the past five years. I would like to continue my education, but the only options are a distance education family nurse practitioner (FNP) program from the University of Wyoming. Does an FNP program with a consolidation of practice in oncology prepare you to work as an adult NP in oncology and sit for the AOCN® Test? Do you know of any good oncology postgraduate programs that could supplement this type of education? My concerns are that a rural setting does not always allow for an oncology practice that is exclusive. I currently care for both the adult and pediatric populations and thought that the FNP would assist me with both. I also am wondering whether Idaho and Wyoming are states that recognize the AOCN® credential for advanced practice nursing.

Carrie Douglas, RN, BHScN, OCN®
Jackson, WY

The Author Responds

Thank you for your interest in my article. NPs who have completed an accredited NP program including family practice, geriatric, adult, or acute care and have a specified number of clinical hours in oncology working as an advanced practice nurse (APN) are eligible to take the AOCN® examination. Contact the Oncology Nursing Certification Corporation (ONCC) at www.oncc.org for more information. Most NPs who are certified as AOCNs® and belong to the Oncology Nursing Society's NP Special Interest Group were educated in family, adult, or geriatric programs, mainly because very few oncology NP programs existed until the past few years (most were clinical nurse specialist-based). The advantage of this educational training is that oncology NPs with a primary-care background are able to address all of the medical issues. This has been perceived as a great service for many oncologists. Your oncology background will be helpful, and the FNP program will provide you with many skills that you can bring into your oncology practice. I have found pediatric growth and development content to be helpful when doing pediatric palliative-care consults and with adult patients with cancer who have children. Family theory will be used every day in your practice. The National League for Nursing (NLN) (800-669-1656) can send you a list of the NLN-accredited master's programs.

Each state is different when it comes to recognition of the AOCN® credential for APN credentialing. I suggest that you contact state boards directly. Although some states do recognize the AOCN® credential, many do not, so it would be advantageous to use the American Nurses Credentialing Center (ANCC) for NP certification in the specialty of your educational track (acute care, family practice, geriatrics, adult, pediatrics, or school health) because this is accepted in all states, is transferable, many require it for prescriptive authority, and most hospitals require it for employment and hospital privileges. For oncology NPs, it makes sense to be certified as an NP by ANCC and an AOCN® by ONCC because, once again, the expectation is that oncology NPs will hold baseline knowledge of general primary care. (Renewal of ANCC certification and AOCN® both require continuing-education units.)

For an excellent reference on how each state stands on legislative issues that includes state board contact information, see the "Fourteenth Annual Legislative Update" in the January 2002 issue of *Nurse Practitioner.*

Kathleen Murphy-Ende, RN, PhD, AOCN®
Oncology Nurse Practitioner/Clinical Assistant Professor
School of Nursing
University of Wisconsin Hospital and Clinics
Madison, WI