

# Catheter-Associated Urinary Tract Infections

## Implementing a protocol to decrease incidence in oncology populations

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**BACKGROUND:** The impact of catheter-associated urinary tract infections (CAUTIs) on immunocompromised patients with cancer requires preventive intervention from bedside nurses.

**OBJECTIVES:** This protocol aims to prevent CAUTIs in the inpatient oncology population by implementing an evidence-based, nurse-driven protocol for discontinuing indwelling urinary catheters (IUCs).

**METHODS:** Following a literature review of 34 articles, a nurse-driven CAUTI prevention protocol was developed and implemented on two 26-bed oncology units. Unit staff were educated on the protocol and use of the audit tool.

**FINDINGS:** Although CAUTI rates remained unchanged, infections per 1,000 IUC days decreased, and adherence among oncology nurses rose 66%–90% within the first two months. The protocol encouraged preventive intervention from RNs to protect patients with cancer from CAUTIs.

### KEYWORDS

CAUTI prevention; protocol adherence; nurse education; evidence-based practice

### DIGITAL OBJECT IDENTIFIER

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**URINARY TRACT INFECTIONS (UTIs) ACCOUNT FOR THE GREATEST NUMBER** of reported healthcare-associated infections, with an estimated 93,300 UTIs and 13,000 UTI-related deaths each year in acute care hospitals (Centers for Disease Control and Prevention [CDC], 2015, 2017). Manipulation of the urinary tract from long-term indwelling urinary catheter (IUC) placement is a major contributor to hospital-acquired UTIs (CDC, 2017; Magill et al., 2014). Nurses can prevent catheter-associated urinary tract infections (CAUTIs) by ensuring evidence-based catheter use and maintenance. Proper catheter care is critical for patient safety and is essential to maintaining patient trust.

### Background

Preventing CAUTIs is important because the primary goal of oncology nursing is to provide safe patient care. Patients with cancer are at a higher risk for CAUTIs because of the immunocompromising effects of the very same cancer treatments that could potentially save their lives. The devastating impact of CAUTIs on vulnerable patients with cancer requires early intervention from the bedside nurse to prevent potential infections. In addition, effective nursing care can reduce the costs associated with CAUTIs. Medicare began incentivizing CAUTI prevention in 2008 through reimbursement penalties and public reporting of CAUTI events (Peasah, McKay, Harman, Al-Amin, & Cook, 2013). As healthcare facilities became acutely aware of their rates of preventable healthcare-associated infections, pressure for reevaluation of existing prevention protocols increased (Peasah et al., 2013).

Initially, a nurse-led team from the inpatient oncology units of a 442-bed academic tertiary medical center in southern California formed to develop an evidence-based approach to CAUTI prevention in the oncology population. The team's goal was to compare existing CAUTI prevention practices to current evidence and to develop a standardized protocol for practice changes for patients with IUCs. The findings from the review of the literature led to the development and implementation of an