Reduction of CAUTIs Across Critical Care

The Problem
Catheter-associated urinary tract infections (CAUTIs) are the most common hospital-acquired infection (HAI) and a source of potential harm for ICU patients. At BIDMC, indwelling urinary catheter (IUC) use and CAUTIs remain more frequent than expected national and local benchmarks. Since January of 2015, the ICU CAUTI Taskforce has focused on reducing CAUTIs across all adult critical care units.

Aim/Goal
- Decrease the Device Utilization Ratio (DUR, the measure of frequency of IUC use)
- Decrease the Standardized Infection Ratio (SIR, the adjusted measure of CAUTI)

The Results/Progress to Date
- Five of seven ICUs showed declines in DUR from FY15Q1 through FY15Q4; two units showed stable DUR
- SIR trends will not be evaluable until FY16 data becomes available, due to a CAUTI definition change beginning FY15Q2

The Team
Judy Bertone, RN
Christine Bertoni, RN, MSN
Abby Block, RN
Christine Bradley, RN
Pam Brownell, RN
Shelley Calder, RN
Pete Clardy, MD
Michael Cocchi, MD
Kathleen Conneely, RN
Jennifer Dear, RN
Sally Dennett, RN
Caroline Drummond, RN
Carleen Duffy, RN
Michelle Dustin, RN
Doreen Foley, RN
Jane Foley RN, BSN, MHA
Elenora Fontaine, RN
Jean Gillis, RN, MS
Charlotte Guglielmi, RN
Pam Haus, RN
Susan Holland, RN, MS, CNML
Christine Joyce, RN
Suzanne Joyner, RN, BSN
Jeff Keane, RN
Emily Keegan, RN
Veronica Kelly RN, BSN
Aleah King RN, CIC
Sue Kitchen RN
Sharon Kuhns, RN
Dian Lewczyk, RN
Lynn Mackinson RN, MS, CCRN-K
Lisa Mirabella, RN
Emily O’Connell, RN, CCRN
Kristin O’Reilly RN, BSN, MPH
Barbara Regan, RN
Kristin Russell, RN
Debra Savage, RN
Lauren Schnitz, RN
Marjorie Serrano, RN, MS
Alison Small, RN, BSN, MSN
Stacey Smith RN, MA, CCRN
Graham Snyder MD, SM
Peter Steinberg, MD, Urology
Karen Stockbridge, RN
Kate Swider, RN
Valerie Traumuller, RN
Donna Williams, RN, MS, CCRN
Kathryn Zieja, BS
Hope Zino, RN

The Interventions
- Partnered with nurse champions to promote interventions at the unit level
- CAUTI education and unit-specific & institutional CAUTI and DUR data was shared with nursing staff and physicians
- Catheter care CAUTI prevention bundle and audit was created and implemented with continuous feedback to individual units
- New products to facilitate urinary care and support alternatives to IUC use were trialed and deployed in all ICUs: urinary catheter securement device, incontinence pad, bladder scanner, male external catheter
- Nurse-driven post-catheter removal care algorithm and guideline were created incorporating Urology-informed best practices
- BIDMC Insertion, Care, and Discontinuation of an Indwelling Urinary Catheter policy was updated to include intermittent catheterization
- MetaVision was updated to include an indwelling urinary catheter Gantt and bladder scan volume documentation

Lessons Learned
- Communicating with ICU RNs and MDs has anecdotally had a dramatic impact in dispelling CAUTI-related misconceptions and driving change in IUC practice
- Multiple sustained interventions will be required to impact catheter use (DUR) and CAUTI (SIR)

Next Steps/What Should Happen Next
- A CAUTI Steering Committee and a Med/Surg CAUTI Taskforce have been formed to translate CAUTI reduction efforts across the institution
- The ICU CAUTI Taskforce will continue to pursue several lines of improvement:
  - Consider POE changes to reduce IUC insertions
  - Standardize team review of IUC indication on daily team rounds
  - Create and rollout a nurse-driven protocol for IUC removal
  - Audit and improve urine culture practices to be commensurate with guideline-based indications

For more information, contact:
Kathryn Zieja, Project Manager
kzieja@bidmc.harvard.edu