Urinary tract infections (CAUTI) at Weatherford

Feeza Hasan, Diana Steedley, Maria Guerrero, and Muhammad Siddique

Background

- Urinary tract infections are the most common type of healthcare-associated infections, accounting for more than 30 percent of healthcare-associated infections reported by acute care hospitals.
- A urinary tract infection (UTI) is an infection involving any part of the urinary system, including urethra, bladder, ureters, and kidney.
- Virtually all healthcare-associated urinary-tract infections (UTIs) are caused by instrumentation of the urinary tract (e.g., insertion of catheters).
- CAUTI has been associated with increased morbidity, mortality, hospital cost, and length of stay.
- Many CAUTIs may be prevented with recommended infection control measures.

4 essential components of CAUTI Prevention

- Avoid unnecessary placement of indwelling urinary catheter.
- Use specific technique while inserting the catheter.
- Use evidence-based guidelines for proper catheter management while in place.
- Remove catheter as soon as possible.

Methods

- Utilized retrospective data for 2 months, November 2023 and December 2024.
- Includes male and female hospitalized patient who required Foley for any indication.
- Stratify patients who required Foley catheter due to urinary retention.
- Verified each patient with indication of acute retention (listed in provided data) is truly acute retention based on hospital protocol and set definition of acute retention.
- Determine if Tamsulosin was administered and whether it impacted de-escalation of Foley catheter.
- As the number of CAUTI increases with duration of Foley catheter kept > 2 calendar days.

Acute Retention Per MCW protocol

- Acute retention is determined by:
  - Bladder scan > 400 ml with sc output > 400 ml
  - Repeat bladder scan in 4-6 hours and if > 400 ml then straight cath.
  - Repeated once more in 4-6 hours and if bladder scan > 400 ml, pt may have acute retention.

Results

- During month of November and December 2023, total 163 hospitalized patient required indwelling Foley catheter.
- November 2023: 3 patients required Foley for acute retention, 18 for perioperative, 7 for prolonged immobilization, 30 patients required for measurement of accurate input and output and 7 for chronic retention.
- December 2023: 6 patients required Foley for acute urinary retention, 31 for perioperative, 7 for prolonged mobilization, 34 for measurement of accurate input and output, 10 for chronic retention, 2 for palliative care, 44 assist in wound healing, 2 for ICU/critically ill patients.
- No hospital acquired CAUTI during this period.

Conclusion

- During month of November and December total 9 cases of acute urinary retention required indwelling Foley catheter. Out of 9 cases 6 patients received Tamsulosin started first day of diagnosis.
- There is no significant difference of duration of Foley catheter in groups who received Tamsulosin vs who did not.
- However, there are opportunities for improvement in terms of proper documentation of bladder scan, correctly identifying acute retention based on MCW protocol, minimizing discrepancies between provider and nursing documentation in terms of indication of indwelling Foley catheter, avoid listing multiple indication for indwelling Foley Catheter for same patient.
- Education and daily evaluation of indwelling urinary catheter indications were highly effective in reducing the rates of catheter utilization as well as the incidence density of CAUTI.

References