

## Catheter-Associated Urinary Tract Infections (CAUTI)

**Definition:** Culture growth of greater than  $10^3$  cfu/mL of uropathogenic bacteria plus signs or symptoms consistent with infection (without another identified etiology) plus indwelling urethral/suprapubic placement or intermittent catheterization.

- This includes patients with catheters in place during the preceding 48 hours
- The greatest risk factor is duration (Increases 3-10% per day of catheterization)
  - Also female sex, diabetes, elderly, colonization of catheter bag, and poor care
- Bacteriuria, foul odor, urine appearance and/or bacteriuria alone are not indicative of infection in patients who are otherwise asymptomatic.
- Ensure clean sample collected
  - Ideally catheter removed plus midstream sample
  - If catheterization required; removal of old catheter and sample taken from new

### Management:

1. Distinguish whether symptoms are indicative of uncomplicated cystitis vs complicated UTI (i.e. involvement of upper GU tract, pyelonephritis)
2. Antimicrobial management:
  - Guided by cultures and susceptibilities
  - Empiric guidance as per management of uncomplicated/complicated UTI and per prior culture data/susceptibilities when available.
  - Duration: 7 – 14 days depending on clinical response and clinical suspicion as to whether infection constitutes complicated vs uncomplicated UTI
  - Special note regarding Candida UTI management
    - Candida is generally not pathogenic, and generally does not indicate infection (unless presence of perinephric abscess, renal transplant, or complex fistulous disease)
    - Fluconazole achieves excellent urinary penetration. Echinocandins do not, and other azoles are not well studied in UTIs
    - If fluconazole resistant Candida cultured or suspected, consult Infectious Diseases
3. Catheter management
  - At the least, catheters should be replaced at the time of antibiotic initiation
  - Preferably, catheters should be removed
  - If catheterization is necessary, intermittent catheterization is preferred over continuous use.