ASYMPTOMATIC BACTERIURIA (AB)

FAQS

1. **What is Asymptomatic Bacteriuria (AB)?**
   AB is a significant bacterial colony count in the urine without signs or symptoms of a urinary tract infection (UTI), reflecting colonization of the urinary tract \[1\].

2. **What are Signs & Symptoms of a UTI?**
   In patients without urinary catheters: signs & symptoms include dysuria, urgent or frequent urination, suprapubic pain or tenderness \[2, 3\].

   In patients with urinary catheters: signs & symptoms include flank pain; acute hematuria; pelvic discomfort; and fever, altered mental status, rigors, or malaise/lethargy with no other identified cause \[2\].

   **Signs & Symptoms NOT Recommended for the Diagnosis of a UTI Include:**
   - changes in the appearance or odour of urine alone \[2\]
   - urinary retention in patients with spinal cord injury \[1,2\]
   - leukocytosis alone \[1,4\]

3. **What is the Prevalence of Asymptomatic Bacteriuria?**
   AB is common in populations including those with urinary catheters, spinal cord injury, and the elderly \[1\]. Of note, the incidence of bacteriuria associated with an indwelling urinary catheter is 5-7% per day \[1\].

4. **Does Asymptomatic Bacteriuria Need Treatment?**
   With the exception of pregnant women, patients undergoing invasive urological procedures, and kidney transplant recipients in the early postoperative period, AB does not need antibiotic treatment \[1, 5\].

5. **Should Patients with Surgical Implants (prosthetic valves, joint implants, etc.) be treated for Asymptomatic Bacteriuria?**
   UTIs are rarely associated with infections of surgical implant devices \[6\]. Evidence is lacking that AB causes implant-related infections or treatment of AB reduces implant-related surgical infection rates \[1, 7\]. For example, AB isolates did not match prosthetic joint infection isolates \[7, 8\]. Prosthetic joint infection rates did not differ between patients treated for AB preoperatively versus patients not treated for AB \[7, 8\].

6. **What is the ASP initiative “Reducing Unnecessary Urine Cultures & Overtreatment of Asymptomatic Bacteriuria”?**
   This initiative is aimed at preventing patient harm from unnecessary antibiotics due to treatment for AB. It supports awareness of AB; orders for urine cultures, with urinalysis tests, only for patients with UTI signs & symptoms; and communication about the indication of urine culture orders. For more information about this initiative please contact Kerry-ann.smith@uhn.ca.

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**Did you know?**

- Asymptomatic bacteriuria is commonly mistreated \[9\]
- Overtreatment of asymptomatic bacteriuria exposes patients unnecessarily to the risk of antimicrobial resistance & hospital acquired infections such as *C. diff* \[1, 10\]
- At MSH + UHN, 67% of urine cultures were ordered without clinical indication; of these patients, > 50% were treated for asymptomatic bacteriuria, receiving unnecessary antibiotic exposure \[11\]
Reference:


