



# Understanding Asymptomatic Bacteriuria

B.C. Provincial Academic Detailing Service

April 2016

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## What is asymptomatic bacteriuria?

Asymptomatic bacteriuria (ASB) refers to the presence of bacteria in the bladder/urine without symptoms pertaining to the urinary tract. ASB is a colonization state and does NOT indicate an infection requiring antibiotics.

ASB is very common in the elderly, patients residing in long term care facilities, patients with long term catheters and patients with abnormal urinary tracts.

Pyuria (white blood cells in the urine) is very common in ASB and is also NOT an indication for antibiotic therapy in asymptomatic patients.

Studies have demonstrated up to 75% of patients receiving antibiotics for ASB.<sup>1</sup>

The inappropriate use of antibiotics in patients with asymptomatic bacteriuria is promoting antimicrobial resistance and can result in adverse events such as *C. difficile* infection.

## What can be done?

### 1. Do not screen urine for bacteriuria or pyuria if a patient is asymptomatic or has non-specific symptoms.

Screening is NOT recommended in the following patient populations:

- premenopausal, non-pregnant women
- diabetic women
- older persons living in the community
- elderly, institutionalized people
- persons with spinal cord injury
- catheterized patients while catheter remains in situ

Screening is recommended:

- prior to undergoing urinary surgery
- pregnancy



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**2. A negative dipstick is not as sensitive as urine microscopy. If urine microscopy is negative for pyuria - this excludes a urinary tract infection.**

Note: in patients where ASB is common, a positive urinalysis or urine microscopy is NOT diagnostic for UTI.

**3. Urine culture is NOT recommended for:**

- cloudy/foul smelling urine
- blocked catheter
- replacement/insertion of catheter
- test of cure if patient has improved clinically
- routine screening (see above)

**4. Non-catheterized patients (including the elderly) will typically have specific or localizing symptoms to the urinary tract, such as dysuria, frequency or urgency.**

Note: in elderly women acute dysuria (< 1 week duration) is the most discriminating symptom for UTI (urgency and frequency are not as reliable).

**5. Before attributing delirium to a UTI, always consider/treat:**

- dehydration: non-specific symptoms often resolve with good hydration - if possible push fluids for 24 hours and reassess
- new medication/drug interaction
- trauma
- hypoxia
- hypoglycemia
- infections other than UTI

**6. In non-catheterized or catheterized residents without localizing signs/symptoms, the following are NOT indications for a urine culture:**

- new or increased falls
- decreased appetite
- new or increased verbal or physical aggression
- new or increased wandering
- confusion
- disorientation
- disorganized thinking

**References:** Adapted with permission from: Kulkarni S. Alberta Health Services. Understanding Asymptomatic Bacteriuria. August 2014.

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