Asymptomatic Bacteriuria (ASB)
- Bacteria present in a urine culture **without** signs or symptoms of a urinary tract infection (UTI)
- Many people, especially the elderly and those with indwelling urethral or suprapubic catheters, will have asymptomatic carriage of bacteria in the urinary tract
- Antimicrobial treatment is not recommended (exceptions: pregnancy and patients scheduled to undergo urological procedures in which mucosal trauma is expected)

**MOST COMMON MICROORGANISMS**
- Gram-negative bacilli (*E. coli, Klebsiella* spp., *Proteus* spp.)
- *Enterococcus* spp.

**DIAGNOSTIC CONSIDERATIONS**
- Absence of typical UTI symptoms: dysuria, increased frequency, urgency, suprapubic tenderness, costovertebral tenderness
- Cognitive changes, hematuria, or fever alone are not sufficient to diagnose UTI
- Isolated leukocytosis (in blood), positive leukocyte esterase and/or nitrites do not confirm that there is a UTI
- Screening with urine culture is recommended only for:
  - Pregnancy: at first prenatal visit
  - Prior to invasive urological procedures
- **DO NOT** perform culture for
  - Malodorous and/or cloudy urine without UTI symptoms
  - Change/insertion of catheter, blocked catheter, or as a test of cure (unless in pregnancy)

**MANAGEMENT CONSIDERATIONS**
- Prescribing antibiotics for asymptomatic bacteriuria does not improve outcomes and increases the patient’s risk of adverse drug reactions, *C. difficile* infection, and promotes development of colonization and/or infection with multidrug resistant bacteria
- Supportive treatment should be considered, including correcting dehydration
- Remove urinary catheter if possible
TREATMENT

- **Pregnancy:** see **IWK spectrum** app section Women’s Health- Genito-urinary Pregnancy-Asymptomatic Bacteriuria for treatment options, suggested duration and pregnancy consideration for antimicrobials.
- **Invasive urological procedures in which mucosal trauma is likely:**
  - Single antibiotic dose  1-2 hours pre-op.
  - Antimicrobial choice should be based on urine culture and sensitivity results.
- **Post renal transplant:** limited evidence assessing routine treatment of ASB to prevent progression to symptomatic urinary tract infections or graft failure. More evidence is needed to make a definitive recommendation.

SPECIAL CONSIDERATIONS

- **If Staphylococcus aureus is isolated in the urine, bacteremia may be present. The patient must be assessed for other sources of infection.**

REFERENCES