Learn simply

Asymptomatic Bacteriuria

Passion Profession same

Screening for asymptomatic bacteriuria in pregnancy[2]

- **Routine urinalysis and culture in the first trimester for all pregnant women**
- **Routine urinalysis and urine culture q 3-4 weeks for women at high risk for asymptomatic bacteriuria[3]**

Negative urine culture

- Continue routine screening[3]

Positive urine culture

- Confirm the diagnosis[4]
- Exclude other diagnoses[5]
- Exclude maternal/fetal complications[6]

Antibiotic treatment[7]

Repeat urine culture 7–10 days after completion of treatment ("test of cure")

Negative urine culture

- Continue routine screening[3]

Positive urine culture

- Consider non-compliance, failed treatment (antibiotic resistance, poor antibiotic selection)

Consider suppressive antibiotic therapy for rest of pregnancy if there is recurrence with the same organism or progression to symptomatic infection

1. Asymptomatic bacteriuria refers to significant bacterial colonization of the urinary tract in the absence of urinary tract symptoms. The most common pathogen is E. coli (65–80%). Asymptomatic bacteriuria complicates 5–10% of all pregnancies. It is not more common in pregnancy than in non-pregnant women, but is more likely to be symptomatic and progress to pyelonephritis during pregnancy.

2. Routine screening and treatment will prevent 80% of pyelonephritis in pregnancy

3. Women at increased risk for asymptomatic bacteriuria and symptomatic urinary tract infections include women with diabetes mellitus, prior urinary tract infection in the index pregnancy, and sickle cell trait/ disease

1. While the urine dipstix can be positive for nitrates and/or leukocyte esterase, the definitive diagnosis of asymptomatic bacteriuria requires a urinalysis and urine culture demonstrating ≥10,000 CFU/mL of a single pathogenic organism in a midstream clean-catch urine specimen (possibly even lower count in a catheterized sample). Imaging studies are not indicated to confirm the diagnosis.

2. The differential diagnosis of asymptomatic bacteriuria includes contamination with lower genital tract organisms, acute cystitis, and pyelonephritis. Women with asymptomatic bacteriuria are typically asymptomatic with a benign abdominal exam.

3. Women who are symptomatic (with complaints of frequency, urgency, or dysuria) or have clinical evidence of fever or suprapubic/costovertebral angle tenderness should be diagnosed with symptomatic urinary tract infection.

1. Maternal complications include progression to symptomatic urinary infection (cystitis, pyelonephritis), urosepsis, ARDS, preterm labor, transient renal dysfunction, and anemia. Progression from asymptomatic bacteriuria to pyelonephritis in pregnancy is 13–65% if untreated, but only 2–3% if treated.

2. Fetal complications (sepsis, low birthweight, preterm birth) are rare. Women with asymptomatic bacteruria are at risk of preterm birth, and treatment with antibiotics decreases this risk.

3. Antibiotic treatment should be continued for 7–10 days because of the high recurrence rate. Adequate treatment options include trimethoprim/sulfamethoxazole 160/180-mg po bid (do not use in first trimester unless it is the only option), nitrofurantoin 100-mg po bid, or cephalexin 500-mg po qid.

4. Aggressive oral hydration should also be recommended. Antibiotic therapy should be adjusted according to culture results, if indicated.
5. Nitrofurantoin 50-100 mg po qhs is the first choice for antibiotic suppression if needed.