

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



asymptomatic bacteriuria

Bacteriuria in pregnancy:

- typically during **early** pregnancy
- **30 to 40** percent of with asymptomatic bacteriuria will develop a **symptomatic** UTI

The smooth muscle relaxation and subsequent ureteral dilatation facilitate the ascent of bacteria from the bladder to the kidney

untreated bacteriuria :

an increased risk of **preterm birth**, **low birth weight**, and perinatal **mortality**.

the predominant uropathogen in both asymptomatic bacteriuria and UTI:

- **Escherichia coli**

Screening for asymptomatic bacteriuria :

- at **12 to 16 weeks** gestation

Antibiotic therapy tailored to culture results:

- **reduces** the risk of subsequent **pyelonephritis**
- **improved** pregnancy **outcomes**
(beta-lactams, nitrofurantoin, and fosfomycin)

Short courses of antibiotics are preferred

Up to **30 percent** of women **fail** to clear asymptomatic bacteriuria so :

- a **repeat** culture **a week after** completion of therapy

If repeat culture has **no growth**:

- there is **no indication** for further testing in the absence of symptoms

If repeat culture is **positive** ($\geq 10^5$ cfu/mL):

- **repeat antibiotic** treatment tailored to antimicrobial susceptibility testing

(the repeat culture the same species ,we give either the same antimicrobial as administered the first time for a longer course or a different antimicrobial for a typical duration)

do not continue testing for asymptomatic bacteriuria following this second treatment course.

There are insufficient data to support the use of suppressive or prophylactic antibiotics for **persistent** or **recurrent** asymptomatic bacteriuria.

Acute cystitis

follow-up cultures to confirm sterilization of the urine

recurrent cystitis:

- **prophylactic or suppressive** antibiotics may be **warranted** in addition to retreatment

urinary **frequency** and **urgency** are frequently a **normal** physiologic change of pregnancy

The presence of fever and chills, flank pain, and costovertebral angle tenderness should raise suspicion for pyelonephritis

A **urinalysis** and **urine culture** should be performed in pregnant women

prior to confirming the diagnosis, **empiric treatment** is typically initiated.

pyurias absence strongly suggests an **alternative** diagnosis.

Nitrofurantoin	100 mg orally every 12 hours	Five to seven days
Amoxicillin	500 mg orally every 8 hours or 875 mg orally every 12 hours	Five to seven days
Amoxicillin-clavulanate	500 mg orally every 8 hours or 875 mg orally every 12 hours	Five to seven days
Cephalexin	250 to 500 mg orally every 6 hours	Five to seven days
Cefpodoxime	100 mg orally every 12 hours	Five to seven days
Fosfomycin	3 g orally as single dose	
Trimethoprim-sulfamethoxazole	800/160 mg (one double strength tablet) every 12 hours	Three days

a quantitative count $\geq 10^3$ cfu/mL in a **symptomatic** pregnant woman.

in **atypical** uropathogens (such as lactobacillus) a quantitative count $\geq 10^5$ cfu/mL as an indicator of **symptomatic** UTI .

Acute pyelonephritis

with or without the typical symptoms of **cystitis**

Management of acute pyelonephritis in pregnant women includes:

- hospital admission
- parenteral antibiotics (broad spectrum beta-lactams)

Mild to moderate

Ceftriaxone

Cefepime

Aztreonam*

Ampicillin

PLUS

Gentamicin[¶]

Piperacillin-
tazobactam

Meropenem

Ertapenem

Doripenem

Aminoglycosides have been associated with **fetal ototoxicity**(this regimen should be used only if intolerance precludes the use of less toxic agents).

Nitrofurantoin and **fosfomycin** are not appropriate for treatment of pyelonephritis due to **inadequate tissue levels**

Antibiotic therapy can be converted to an **oral** regimen tailored to the susceptibility profile of the isolated organism until the woman is **afebrile for 24 to 48 hours** and symptomatically **improved**.

Oral options are generally limited to **beta-lactams** or, if in the **second trimester**, **trimethoprim-sulfamethoxazole**.

Following the treatment course, **suppressive antibiotics are typically used** for the remainder of the pregnancy to prevent recurrence.

symptoms and fever beyond **24 to 48** hours
treatment:

- **repeat** urine culture
- renal **ultrasound**

following an episode of pyelonephritis

- **antimicrobial prophylaxis** for the duration of pregnancy (nitrofurantoin 50 to 100 mg orally at bedtime or cephalexin 250 to 500 mg orally at bedtime)

(bacteriuria can occur during preventive therapy, so perform at least **one later culture**, at least at the **start of the third trimester**)

Or

- check **monthly urine cultures** to evaluate for recurrent bacteriuria.

If **induction** of labor or **cesarean** delivery is planned in a patient on treatment for pyelonephritis:

waiting until the patient is **afebrile**

Group B streptococcal

Group B streptococcus (GBS; Streptococcus agalactiae) : ►

- gram-positive
- colonizes the human **genital** and **gastrointestinal** tracts and maybe the **upper respiratory** tract
- illness in neonates, young infants, pregnant women, and adults with underlying medical conditions

Invasive maternal infection :

- pregnancy loss and preterm delivery
- an increased risk of intra-amniotic infection
- early postpartum infection.

(It is not clear whether there is an association between maternal GBS colonization and preterm delivery, but GBS does cause **third** trimester **stillbirths**).

Group B streptococcal (GBS) colonization:

- **15 to 40 percent** of pregnant

Patients with GBS bacteriuria **any time in pregnancy** or an **infant with early-onset GBS** infection in a previous pregnancy should routinely **receive intrapartum antibiotic** prophylaxis.

(penicillin G, ampicillin, or cefazolin at least **four hours** before delivery.)

penicillin allergy at risk for anaphylaxis :

- clindamycin** (sensitivity to clindamycin should be documented)

- resistant to clindamycin or susceptibility results are not available: **vancomycin**

In asymptomatic GBS bacteriuria in pregnancy Antibiotic therapy is :

- penicillin, amoxicillin, or cephalosporin for **five to seven** days

(**A repeat urine culture** is performed following treatment).

Genital colonization with GBS **persists** despite adequate therapy for GBS bacteriuria. (indication for **intrapartum chemoprophylaxis** at the time of delivery).

از توجه شما متشکرم

