

## Asymptomatic Bacteriuria (ASB) and Urinary Tract Infections (UTI) in pregnancy

### Asymptomatic bacteriuria (ASB) in pregnancy:

- ASB is the isolation of the same organism in a mid-stream urine on **two separate occasions**, with a colony count of >10,000 - 100,000 organisms/ml.
- Despite the lack of strong recommendations from NICE, RCOG, and the UK National Screening Committee to routinely screen for ASB in uncomplicated pregnancies, it remains a routine antenatal practice across most of the UK, although with significant variation in clinical practice. If routine screening of MSU for ASB is conducted, it is crucial to provide guidance on proper MSU collection to minimize contamination, as 50% of positive results are not confirmed upon repeat testing.**
- When detected, standard practice is to treat with antibiotics in pregnancy because of the higher risk of pyelonephritis and an association with pre-term labour and low birth weight.
- Treat for 7 days with an antibiotic according to the culture and sensitivity results - treatment options as below.
- There is no evidence regarding whether further MSUs should be sent post-treatment or repeated.
- For patients with known urological/renal abnormalities, or under the care of the Obstetric-Renal team, asymptomatic women may be treated with antibiotics based on the first positive urine culture. Discussion with microbiology may be required depending on the organism grown
- Repeatedly positive urine cultures in pregnancy should be discussed with microbiology and obstetrics +/- urology, as this may indicate a urological abnormality is present and repeated antibiotic courses carry risks in pregnancy.

### Symptomatic cystitis:

- Send a pre-treatment MSU**, advising the patient on how to take an MSU to minimise contamination.
- Review any previous microbiology results as a guide.
- Start empiric treatment as below and adjust when the sensitivities of a pre-treatment MSU are available.

### Upper UTI/pyelonephritis:

- If symptoms suggest pyelonephritis, ***the antibiotics below are not suitable and the patient should be referred for assessment as they often require IV antibiotics.***
- Short-term use of nitrofurantoin in pregnancy is unlikely to cause problems to the foetus; however, it should be avoided at term or if delivery is imminent.
- Pivmecillinam is not known to be harmful in pregnancy. Long courses (>7 days) or repeated courses should be avoided as long-term use of pivmecillinam is associated with carnitine deficiency.
- The use of pivmecillinam during late pregnancy may cause a false positive test for isovaleric acidemia in the newborn as part of neonatal screening.
- Cefalexin is safe in pregnancy but is recommended for third line use in UTIs or pyelonephritis if IV antibiotics are not required. This is due to the increased risk of C. difficile and recent reports of serious C. difficile infection in pregnant patients.

**Quinolones should be avoided in pregnancy or in patients who are trying to become pregnant.**

Antibiotics should be avoided in pregnancy or in patients who are trying to become pregnant.		
Antibiotic	Dose	Duration
<b>First line:</b> Nitrofurantoin <b>Avoid at term or if delivery is imminent</b>	100mg MR twice daily (50mg four times a day if MR caps unavailable)	All for 7 days
<b>Second line:</b> Pivmecillinam <sup>2</sup>	400mg immediately, then 200mg three times daily	
<b>Third line:</b> Cefalexin	500mg three times a day	
<b>If known to be sensitive based on culture and sensitivity results</b>		
Trimethoprim <sup>1</sup>	200mg twice daily	

<sup>1</sup> Avoid trimethoprim in the first trimester or in patients who have a low folate status or on folate antagonists, e.g., anti-epileptics or proguanil.

<sup>2</sup> The intake shortly before delivery may cause a false positive test for isovaleric acidemia in the newborn's neonatal screening. Recent pivmecillinam use should be recorded on the medication information section of the neonatal screening form.

The [TARGET antibiotics toolkit hub](#) includes leaflets to discuss with patients, [diagnostic tools](#), and other UTI resources.

Further information to support the stance on screening:

[Overview | Antenatal care | Guidance | NICE](#)

[Asymptomatic bacteriuria - UK National Screening Committee \(UK NSC\) - GOV.UK](#)