

Urinary Tract Infections■

1. **Non-pregnant patients with asymptomatic bacteriuria** do NOT require antibiotic treatment.
2. **Bacteriuria** in a patient with an **indwelling urinary catheter** is NOT an indication for **treatment** unless there are specific clinical features of infection. **Removal of the urinary catheter** at the earliest possible time is the best approach to dealing with catheter-associated bacteriuria.
3. A practice of routine antimicrobial prophylaxis with gentamicin or other agents at the time of catheterisation is NOT appropriate. See surgical prophylaxis section for note related to [recent urological surgery](#) .
4. **Multi-drug resistant organisms (MDRO)** are relatively common in patients with UTI from a nursing home setting and increasingly in other patients. [Review recent previous urine culture and sensitivity](#) . See note on [ESBL](#) and [MDRO](#) .
5. **Check if any recent GP urine culture and sensitivities from iLab or contact the GP**
6. These are summary empiric antibiotic choices. Full detailed Women’s and Children’s (WAC) Group Management of Urinary Tract Infections (UTI’s) in Pregnancy are available on QPulse.

Empiric Antibiotics for Urinary Tract Infections				
Infection	1 st Line Antibiotics	Comment		Duration
The regimens below may NOT cover Multi-drug Resistant Organisms (MDRO) in all cases. See note on MDRO				
Cystitis/Lower UTI	Nitrofurantoin PO 50mg every 6 hours Avoid nitrofurantoin if eGFR <45 ml/min/1.73 m2. When potential benefit outweighs risk, it may be used with caution if the eGFR is 30–44 ml/min/1.73 m2 for a short course only (3–7 days)	Adjust initial treatment based on culture & sensitivity results. If eGFR<30ml/ min/1.73m² , discuss patients with Microbiology or Infectious Diseases If pregnant , see WAC Directorate Management of Urinary Tract Infections in Pregnancy (QPulse CLN-OGCP-227)		Duration for non-pregnant women : 3 days for nitrofurantoin (7 days in males)
Infection	1st Line Antibiotics	Penicillin allergy: delayed onset non-severe reaction See penicillin hypersensitivity section for further information	Penicillin allergy: immediate or severe delayed reaction	Duration
Pyelonephritis or Complicated UTI Non-pregnancy	Piperacillin/tazobactam IV 4.5g every 8 hours + Gentamicin IV one dose per GAPP App calculator. See footnote* re further doses and monitoring. If patient is septic and/or acutely unwell discuss with Microbiology or Infectious Diseases	Ceftriaxone IV 2g every 24 hours Add Gentamicin IV IF Sepsis Give one dose per GAPP App calculator. See footnote* re further doses and monitoring.	Ciprofloxacin IV 400mg (or PO 500mg) every 12 hours (consider oral route from outset). (See Fluoroquinolone warning) Add Gentamicin IV IF Sepsis Give one dose per GAPP App calculator. See footnote* re further doses and monitoring.	Minimum duration of treatment is 10 days. Longer duration may be necessary in males-discuss with Microbiology or Infectious Diseases 7 days if therapy is with Ciprofloxacin Consider switch to oral therapy if good early clinical response to IV therapy.
Acute Pyelonephritis in pregnancy	For full detailed guidance see Women’s and Children’s (WAC) Group Management of Urinary Tract Infections (UTI’s) in Pregnancy (QPulse CLN-OGCP-227) Ceftriaxone IV 2g every 24 hours Add Gentamicin IV IF Sepsis Give one dose per GAPP App calculator (use booking weight). See footnote* re further doses and monitoring. See footnote^ re use in pregnancy.	Gentamicin IV every 24 hours, dose per GAPP App calculator (use booking weight). See footnote* re review and monitoring. See footnote^ re use in pregnancy. + Either (depending on Group B <i>Streptococcus</i> susceptibility result if available) Vancomycin IV infusion, dose per GAPP App calculator (use booking weight). See footnote* re review and monitoring. OR Clindamycin IV 900mg every 8 hours Give first doses, THEN IMMEDIATELY discuss with Microbiology or Infectious Diseases to discuss further therapy.		Duration as per QPulse CLN-OGCP-227
^ Gentamicin is recommended in pregnancy when benefit outweighs risk.				
* Review need for ongoing Gentamicin and Vancomycin on a daily basis. Continue with once daily Gentamicin dosing ONLY if Consultant /Specialist Registrar recommended. Up to three once daily doses of Gentamicin may be indicated for pyelonephritis. For advice on monitoring see Gentamicin & Vancomycin Dosing & Monitoring section.				

Refs:

1. IDSA/ESCMID Guidelines for the treatment of acute uncomplicated cystitis and pyelonephritis in women. [Clin Infect Dis 2011;52:e103-e120](#)
2. [SIGN160](#) : Management of suspected bacterial lower urinary tract infection in adult women. Sept 2020.
3. Women's and Children's (WAC) Group Management of Urinary Tract Infections (UTI's) in Pregnancy (QPulse CLN-OGCP-227)
4. NICE guidelines [NG 109](#) : Urinary tract infection (lower): antimicrobial prescribing. Published 31 October 2018
5. NICE guidelines [NG 111](#) : Pyelonephritis (acute): antimicrobial prescribing. Published 31 October 2018
6. Antimicrobial for 7 or 14 Days for febrile Urinary Tract Infection in Men: a multicentre noninferiority double-blind, placebo-controlled, randomized clinical trial. *Clin Infect Dis* 2023;76 2154-2162