MEG Demo (Staff App) - MEG Demo - MEG Staff app: Urinary tract Infections

Urinary Tract Infection

Urinalysis and urine cultures should be interpreted along with clinical signs and symptoms of a UTI

Bacteriuria (>100,000 organisms per ml of a single organism) indicates infection **IF** clinical signs and symptoms of a UTI also present. Lower colony counts may be considered significant in particular situations e.g. patients already receiving antibiotics, catheterised patients etc.

Asymptomatic bacteriuria does not usually require antimicrobial treatment (exceptions include pregnancy, pre-urologic surgery amongst others).

Pyuria (>30 WCC/Microlitre) in the setting of a negative urine culture or in patients with asymptomatic bacteriuria usually requires no treatment

Bacteriuria in the absence of a pyuria is likely a contamination

Catheter-Associated Urinary Tract Infection

The urine of patients with indwelling catheters frequently becomes colonised.

Asymptomatic bacteriuria in catheterised patients **DOES NOT USUALLY** require treatment and catheter should be removed if possible.

Symptomatic patients with a positive urine culture of >1000 organisms per ml should receive antimicrobial treatment for seven days if improving and remove or change catheter.

- Prophylactic antimicrobials should not be administered routinely to patients at the time of catheter placement, replacement, or removal to reduce catheter-associated UTI (IDSA Guidelines 2009)

Antimicrobial Treatment of UTIs

Clinical Conditions	Likely Organisms	Antimicrobial Dosage	Approx Duration of Therapy	Comments
Uncomplicated lower UTI Empirical therapy NB Discontinue empirical therapy and change to appropriate organism-specific therapy once culture and sensitivity is obtained	Escherichia coli Enterococcus sp. Proteus sp. Staphylococcus sp. Klebsiella sp.	Amoxicillin:clavulanic acid 625mg PO TDS or Nitrofurantoin 100mg PO QDS (If GFR >60ml/min)	3 to 5 days 3 to 5 days	1. Send urine sample for culture and sensitivity prior to commencing antibiotics. 2. Intravenous therapy may be required in more severe infection. 3. Adjust therapy based on sensitivities once available. 4. Duration of therapy may be extended if patient has abnormality of the genito-urinary tract.
Acute pyelonephritis Empirical therapy NB Discontinue empirical therapy and change to appropriate organism-specific therapy once culture and sensitivity is obtained	Organism unknown	Amoxicillin:clavulanic acid 1.2g IV TDS + Gentamicin 5mg/kg IV once daily	14 days 5 to 7 days	1. Take blood cultures. 2. Longer treatment may be necessary in complicated pyelonephritis. 3. Adjust Gentamicin dosage according to pre-dose levels.
Sepsis post genito-urinary surgery	Gram negative bacilli	Gentamicin 5mg/kg IV once daily + Amoxicillin 1g IV TDS		Adjust Gentamicin dosage according to pre-dose levels. In Penicillin allergy use Gentamicin OR Ciprofloxacin monotherapy depending on sensitivities
Epididymo-orchitis	British Association for Sexual Health and HIV (BASH) 2010 Guidelines	Most probably due to any sexually-transmitted organism: Ceftriaxone 250mg IM single-dose PLUS Doxycycline 100mg BD PO for 10-14 days If most probably due to Chlamydia or non-gonococcal organisms: Doxycycline 100mg BD PO for 10-14 days Or Ciprofloxacin 500mg BD PO for 10-14 days If most probably due to enteric organisms: Ciprofloxacin 500mg BD PO for 10-14 days		