

In Nephrology

- UTI is defined by presence of pyuria (WBC >5/HPF) and urine culture showing colony count > 1 lakh CFU/ml. Multiple species of organisms in urine culture indicate contamination, repeat sample
- Urine dipstick (with leucocyte esterase and Nitrite) can be used in clinic for rapid diagnosis of UTI
- UTI is very common in females in reproductive age group
- Lower UTI ie cystitis in young females does not need investigation, patient presents with dysuria, frequency and suprapubic pain. Responds to 3 days of Nitrofurantoin or Septran. Single dose (3 gm) Fosfomycin sachet can be used
- All UTI in males should be investigated with urine examination, culture and ultrasound. Treatment of male UTI should be for 7 days
- Upper UTI means involvement of kidneys and upper tract ie Pyelonephritis and presents with fever, chills and loin pain. Upper UTI should be investigated in both males and females. Treatment of Pyelonephritis may be oral or IV. Fluroquinolones, Amoxicillin- Clavulanate, 3rd generation Cephalosporins or Piperacillin Tazobactam or Carbapenems may be used for treatment. Treatment duration is for 10-14 days. If Pyelonephritis not responding to appropriate antibiotics within 72 hours, CT scan abdomen should be done to rule out Emphysematous pyelonephritis as it may need stenting or surgery.
- Complicated UTI means UTI in abnormal urinary tract ie in presence of obstruction, Stones etc. Male UTI is always considered Complicated UTI. Treatment of complicated UTI is similar to pyelonephritis along with relieving the obstruction.
- Catheter associated UTI is common and should be treated only if patient symptomatic
- UTI in pregnancy should be evaluated with urine examination and culture and if recurrent antibiotic prophylaxis should be given till term
- UTI in children should be evaluated with CUE, culture and Ultrasound to check for hydronephrosis. If any suspicion of obstruction Micturating cystourethrogram (MCUG) and DMSA scan should be done to look for reflux nephropathy.
- Recurrent UTI is common in elderly females and symptomatic treatment with oestrogen creams, Cranberry, urine alkalizers and personal hygiene
- Asymptomatic bacteriuria (ie positive urine culture without any symptoms) does not need any treatment except in pregnancy or if any urinary procedure is planned.