

# ACUTE PYELONEPHRITIS / UPPER URINARY TRACT INFECTION (UTI) V2.1

## Comments from the Expert Advisory Group

Send MSU for culture and sensitivity in all cases prior to the patient starting an antibiotic. Empirical antibiotic choice should be tailored based on previous results (if available).

Consider acute pyelonephritis/ upper urinary tract infection (UTI) when there is:

- Flank pain which radiates to the iliac fossa and suprapubic area.
- Sudden onset general systemic disturbance with fever, rigors, vomiting.
- Tenderness and guarding over the kidney.
- Nausea and/ or vomiting.

Consider referral to hospital in patients with pyelonephritis if:

- Patient is significantly dehydrated or unable to take oral fluids and medicines.
- Child/ young person <16 years with acute pyelonephritis.
- Aged 16 years and over with acute pyelonephritis and has a severe systemic infection.
- Patient is pregnant.
- Patient has a higher risk of developing complications (e.g. people with known or suspected structural or functional abnormality of the genitourinary tract or underlying disease [such as diabetes or immunosuppression]).

Consider referral to secondary care for further investigation in:

- Male patients, following a single episode of pyelonephritis without an obvious cause.
- Female patients with recurrent pyelonephritis.

Nitrofurantoin is NOT a suitable antibiotic choice in pyelonephritis.

## Treatment

ACUTE PYELONEPHRITIS/UPPER UTI TREATMENT TABLE			
If no response within 24 hours consider referral to hospital			
Drug	Dose	Duration	Notes
<b>1<sup>st</sup> Choice Option</b>			
Cefalexin	500 mg every 8 hours (can increase to 1 g every 6 hours in severe infection)	7 - 10 days	Cephalosporins should not be used in severe penicillin allergy.
<b>2<sup>nd</sup> Choice Options</b>			
Ciprofloxacin	500 mg every 12 hours	7 days	Multiple adverse effects associated with fluroquinolones. Avoid ciprofloxacin in pregnancy. Suitable in penicillin anaphylaxis.
Co-amoxiclav	875/125 mg every 8 hours*	7 - 10 days	Avoid in penicillin allergy. Use only when risk of resistance is low i.e. where previous culture suggests susceptibility (but this was not used) or in younger patient without a significant antibiotic exposure history. Risk of resistance is more likely in older people in residential facilities.

\* A higher dose of co-amoxiclav (875/125 mg) every 8 hours is recommended for treatment of acute pyelonephritis / upper UTI (875/125 mg = 875 mg amoxicillin plus 125 mg clavulanic acid)

## Patient Information

- [HSE A-Z Kidney Infections](#)