

UNCOMPLICATED UTI IN ADULT MALE i.e. no fever or flank pain V2.1

Comments from the Expert Advisory Group

- Always send pre-treatment MSU in males.
- Empirical antibiotic choice should be tailored based on previous results (if available).
- Consider sexually transmitted infections particularly in young people presenting with lower urinary tract symptoms.
- Consider acute prostatitis in males >50 years with lower urinary tract symptoms.
- Nitrofurantoin should NOT be given if there is any suspicion of prostatitis.
- It is advisable to refer men with recurrent UTI for specialist opinion. Antimicrobial prophylaxis should only be considered following specialist advice.
- Consider acute pyelonephritis /upper UTI when:
 - 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

Treatment

UNCOMPLICATED UTI IN ADULT MALES EMPIRIC TREATMENT TABLE (i.e. no fever or flank pain)			
Drug	Dose	Duration	Notes
1st Choice Options			
Nitrofurantoin Immediate Release Capsules	50 mg every 6 hours	7 days	Nitrofurantoin has poor penetration in the prostate. Consider prostatitis as a diagnosis in males if symptoms persist. Nitrofurantoin is NOT a suitable antibiotic choice for Upper UTI. Nitrofurantoin is contraindicated in patients with eGFR < 30 mL/min/1.73 m ² Immediate/ Prolonged Release should be stated on the prescription (see note below on formulation difference)
OR			
Nitrofurantoin Prolonged Release Capsules	100 mg every 12 hours	7 days	
Alternative 1st Choice Options (if nitrofurantoin unsuitable)			
Cefalexin	500 mg every 12 hours	7 days	Cephalosporins should not be used in severe penicillin allergy.
OR			
Trimethoprim	200 mg every 12 hours	7 days	Use only when risk of resistance is low i.e. where previous culture suggests susceptibility (but trimethoprim was not used) or in younger patients without a significant antibiotic exposure history. Risk of resistance is more likely in older people in residential facilities.

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Some considerations for antibiotic choice:

Nitrofurantoin is the preferred first choice if it is not contra-indicated. Nitrofurantoin resistance rates remain low in community *E.coli* UTIs throughout Ireland (including in ESBL-producing isolates) despite increasing resistance to other antibiotics.

Nitrofurantoin precautions

Tissue concentrations are too low for treatment of systemic infection, including pyelonephritis. It is only suitable for uncomplicated lower urinary tract infection and in lower CA-UTI where the patient is systemically well.

Nitrofurantoin has poor penetration in the prostate. Consider acute prostatitis as a diagnosis in males if symptoms persist.

Nitrofurantoin should not be used in patients with severe renal impairment (CKD Stage 4/5, eGFR <30 mL/min/1.73m², Creatinine Clearance <30 mL/min) because of diminished urinary tract concentrations and increased risk of toxicity. Nitrofurantoin may be used with caution (as short-course therapy only) if there is a lesser degree of renal impairment (eGFR greater than 30 mL/min/1.73m²) to treat suspected or proven resistant pathogens, when the benefits are expected to outweigh the risks. In frail elderly patients with poor fluid intake and an infection, creatinine levels may deteriorate quickly so if a patient is dehydrated then established renal impairment may be further compromised.

Two nitrofurantoin formulations are available: nitrofurantoin immediate release capsules (Macrodantin®) and nitrofurantoin prolonged release capsules (MacroBid®). For the treatment of infection the prolonged release MacroBid® capsules are dosed twice daily whilst the standard Macrodantin® capsules are dosed four times daily. As ADVANZ PHARMA is the sole supplier of these products in Ireland, a stock management plan has been introduced to ensure patients in Ireland have access to these important medicines. Should any customer have difficulty in getting supply, ADVANZ PHARMA have advised pharmacists to contact their customer service line on +353 15294230 to allow them to assist in meeting patients' needs.

There is data to indicate that the rate of **trimethoprim** resistance in *E.coli* in community urinary samples is high in particular in older people in residential care facilities. Empiric trimethoprim is therefore no longer recommended except where nitrofurantoin is unsuitable and the risk of resistance is low (e.g. where a previous urine culture has had a trimethoprim-susceptible isolate and trimethoprim has not been used, or in a young patient without a significant antibiotic exposure history).

Fosfomycin is not licenced for the treatment of UTI in male patients.

Amoxicillin is not recommended as empiric therapy, as resistance rates in community *E.coli* UTIs are extremely high. Only use if amoxicillin susceptibility known.

Co-amoxiclav resistance in *E.coli* in community urine samples is high. In addition, it is a systemic agent and should be avoided in uncomplicated cystitis if a locally acting agent (e.g. nitrofurantoin) could be used instead.

Ciprofloxacin is a broad-spectrum antibiotic, associated with *C. difficile* infection and multiple adverse effects. It is not recommended for the empiric treatment of uncomplicated cystitis. It may be considered for targeted therapy of multi-resistant infections, where there are no other appropriate options.

Patient Information

[HSE A to Z Urinary tract infections](#)