



CLINICAL GUIDELINE

Fosfomycin in the treatment of Urinary Tract Infections, for Primary and Acute Care

A guideline is intended to assist healthcare professionals in the choice of disease-specific treatments.

Clinical judgement should be exercised on the applicability of any guideline, influenced by individual patient characteristics. Clinicians should be mindful of the potential for harmful polypharmacy and increased susceptibility to adverse drug reactions in patients with multiple morbidities or frailty.

If, after discussion with the patient or carer, there are good reasons for not following a guideline, it is good practice to record these and communicate them to others involved in the care of the patient.

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Important Note:

The Intranet version of this document is the only version that is maintained. Any printed copies should therefore be viewed as 'Uncontrolled' and as such, may not necessarily contain the latest updates and amendments.

GG&C Protocol for Primary and Acute care Fosfomycin in the Treatment of Urinary Tract Infections

Multi-Drug Resistant **Gram Negative Organism** (e.g.: *E.coli*, Klebsiella species etc.) reported by Microbiology from a **urine sample in an adult** in 1 of the following situations:

1. Uncomplicated urinary tract infection (UTI) in non-pregnant females, symptoms ≥ 2 of dysuria, frequency, urgency, nocturia, haematuria and a positive dipstick test result for nitrite.
2. Lower UTI in males (without features of systemic infection)
3. Catheter-associated UTI (CA-UTI) in males and non-pregnant females

Does the patient require antibiotic treatment for UTI as per the current **NHSGGC Guidelines**?

YES

NO

Treatment not required

Is fosfomycin use appropriate?

- Check no other oral agents are suitable
- Check the organism is fosfomycin sensitive
- Check there is no fosfomycin allergy

NO

Do NOT prescribe fosfomycin

Prescribe another susceptible oral agent **OR** arrange admission for IV therapy **OR** contact the Outpatient Parenteral Antibiotic Therapy (OPAT) service for outpatient IV therapy
GP contact OPAT via GP Connect,
Hospital referral via TrakCare (Tel. 0141 452 3107).

YES

FOSFOMYCIN PRESCRIBING INFORMATION

- Particularly active against Multi-Drug Resistant **Gram Negative Organisms**
- Often the **only** orally active agent against these organisms
- NHSGGC have approved use of Fosfomycin sachets 3g in **restricted situations**, as recommended by microbiology/ID
- Check oral antibiotic susceptibilities on the report, and if none are usable, contact the Duty Microbiologist- either [Primary care clinical advice | Right Decisions \(scot.nhs.uk\)](#) or [Secondary care clinical advice | Right Decisions \(scot.nhs.uk\)](#)
- Fosfomycin sensitivity is based on *E coli* breakpoints, monitor clinical response and consider alternative agent if symptoms persists. If fosfomycin sensitivity not available contact microbiology, see above.

Contraindications

1. Creatinine Clearance ≤ 10 ml/min
2. Patients undergoing haemodialysis
3. Known hypersensitivity to fosfomycin or product excipients
4. Suspected bacteraemia
5. Suspected or proven pyelonephritis or peri-nephric abscess

Cautions

- Pregnancy or breast feeding (if considering fosfomycin discuss antibiotic choice and dosing with microbiology/infectious diseases).
- Adverse effects: usually do not necessitate stopping fosfomycin. GI problems (e.g. nausea, diarrhoea), headaches, vaginitis, skin rashes (self-limiting), rarely hypersensitivity reactions and impairment of liver function.
- Drug interactions: metoclopramide reduces absorption of fosfomycin: (avoid metoclopramide if possible). Other drugs that increase gastrointestinal motility may produce similar effects.

FOSFOMYCIN DOSING INFORMATION

1. Uncomplicated UTI in non-pregnant adult females – **One 3g sachet as a single dose**
 2. Lower UTI in adult men – **One 3g sachet on day 1 and a further 3g sachet on day 4 (total of 2 doses)***
 3. Catheter-associated UTI in adult men and non-pregnant adult females – **One 3g sachet on day 1 with catheter removal/replacement 1 hour after the dose. A further 3g sachet should be taken on day 4 (total of 2 doses)***
- * Off-label dosing

Take fosfomycin on an empty stomach (2-3 hours before a meal or 2 or more hours after a meal), preferably before bedtime and after emptying the bladder. Dissolve the sachet contents in a glass of water and take immediately after preparation.