FOSFOMYCIN

A phosphate derivative bactericidal antibiotic with a unique mechanism of action. It prevents bacterial cell wall synthesis via inhibition of N-acetylmuramic acid, a precursor of the main cell wall component, peptidoglycan.

ANTIMICROBIAL SPECTRUM

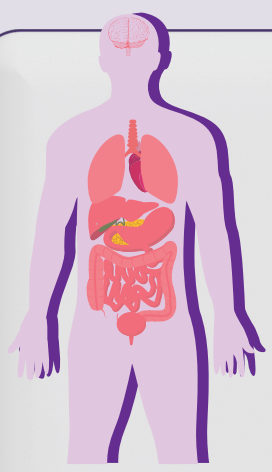
- **Gram-positive cocci:** methicillin-sensitive *Staphylococcus aureus* and methicillin-resistant *Staphylococcus aureus, Staphylococcus epidermidis, Streptococcus pneumoniae, Enterococcus faecalis* and vancomycin-resistant *Enterococcus.*
- **Gram-negative baciili:** *Escherichia coli*, *Proteus* spp., *Klebsiella* spp., *Enterobacter* spp., *Serratia* spp., *Citrobacter* spp. and *Providencia* spp.
- **Resistance:** *Acinetobacter* spp., *Pseudomonas* spp., *Stenotrophomonas* spp. and *Bacteroides* spp.

ROUTE
PO / IV

EXCRETION

- **Oral:** Urine (38% active compound) and faeces (18% active compound). Improved absorption of granule formulation in comparison to tablets.
- **IV:** 90% recovered in urine.

MAIN INDICATIONS



ORAL

- Uncomplicated lower urinary tract infections (UTIs).
- Perioperative antibiotic prophylaxis for transrectal prostate biopsy (TRPB).

Intravenous

- Only when there are no appropriate alternative options.
- Complicated UTIs.
- Bone and joint infections.
- Hospital-acquired pneumonia and ventilator-associated pneumonia.
- Complicated skin and soft tissue infections.
- Bacterial meningitis.
- Bacteraemia as a result of the above listed conditions.

ADULT DOSE

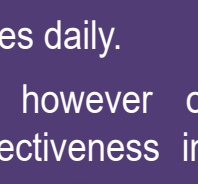
ORAL

Granules

- Fosfomycin tromethamine.
- One sachet (3g) of powder mixed with 4 ounces of water.
- Take prior to food.
- Normally taken as a once off but can be repeated with intervals of 48-72 h for more complex UTIs in males.

Tablets

- Fosfomycin calcium.
- 500mg -1g three times daily.
- Licenced for UTI; however ongoing clinical trials for effectiveness in other situations.



Intravenous

- 12 – 24g daily – in 2-4 divided doses.
- Singular dose must not exceed 8g.
- Increased to 16-24g daily in 3-4 divided doses for bacteria meningitis.

RENAL IMPAIRMENT

- **ORAL:** Avoid if creatinine clearance <10ml/min
- **IV:** Dose adjustment if creatinine clearance <40ml/min
  - 40ml/min – 70% of normal dose
  - 30ml/min – 60% of normal dose
  - 20ml/min – 40% of normal dose
  - 10ml/min – 20% of normal dose

SIDE EFFECTS

Common

- Gastrointestinal upset – nausea, diarrhoea, indigestion, abdominal pain
- Dizziness
- Headaches
- Vulvovaginitis

Uncommon

- Urticarial rash
- Vomiting
- Itching
- Fatigue
- Oedema

Rare

Visual disturbances · Deranged liver function · Eosinophilia

MONITORING

IV use

- Electrolytes
- Fluid balance

PREGNANCY
FDA Category
B

www.ISAC.world
Company Reg. Number: 7251522
Charity Reg. Number: 1139367

References can be found at www.APUA.org

Idea and concept by Mushira Enani on behalf of APUA / ISAC

www.APUA.org

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