Fosfomax™ 4

Fosfomycin 4 gm

Powder for solution for infusion

Composition
Fosfomax™ **4**: Each vial contains Fosfomycin Sodium EP with Succinic Acid sterile powder equivalent to Fosfomycin 4 gm.

Pharmacology
Fosfomycin exerts a bactericidal effect on proliferating pathogens by preventing the enzymatic synthesis of the bacterial cell wall. Fosfomycin inhibits the first stage of intracellular bacterial cell wall synthesis by blocking peptidoglycan synthesis.

Indications
Fosfomax™ Infusion is indicated for the treatment of the following infections in adults and children including neonates
•Osteomyelitis
•Complicated urinary tract infections
•Nosocomial lower respiratory tract infections
•Bacterial meningitis
•Bacteraemia that occurs in association with, or is suspected to be associated with, any of the infections listed above
Fosfomax should be used only when it is considered inappropriate to use antibacterial agents that are commonly recommended for the initial treatment of the infections listed above, or when these alternative antibacterial agents have failed to demonstrate efficacy.

Dosage & Administration
The daily dose of **Fosfomax**™ is determined based on the indication, severity and site of the infection, susceptibility of the pathogen(s) to fosfomycin and the renal function. In children, it is also determined by age and body weight.
i. Adults and adolescents ≥ 12 years of age (> 40 kg): Fosfomycin is primarily excreted renally unchanged. The general dosage guidelines for adults with estimated creatinine clearance > 80 ml/min are as follows:

Indication	Daily dose
Osteomyelitis	12–24 gm in 2–3 divided doses
Complicated urinary tract infection	12–16 gm –3 divided dose
Nosocomial lower respiratory tract infection	12–24 gm in 2–3 divided dose
Bacterial meningitis	16–24 gm in 3–4 divided doses

Individual doses must not exceed 8 g. The high-dose regimen in 3 divided doses should be used in severe infections expected or known to be caused by less susceptible bacteria. There are limited safety data in particular for doses in excess of 16 g/day. Special caution is advised when such doses are prescribed.
ii. Dosage in renal insufficiency: Special precaution should be exercised if doses at the higher end of the recommended range are considered. In patients with impaired renal function the dose of fosfomycin must be adjusted to the degree of renal impairment.
iii. Hepatic impairment: There are no data indicating that dose adjustment is necessary in patients with hepatic impairment.
iv. Elderly patients: The recommended doses for adults should be used in elderly patients. Caution is advised when considering the use of doses at the higher end of the recommended range.
v. Paediatric population: Dose recommendations are based on very limited data.
Neonates, infants and children < 12 years of age (< 40 kg):
The dosage of fosfomycin in children should be based on age and body weight (BW):

Age/weight	Daily dose
Premature neonates (age < 40 weeks)	100 mg/kg BW in 2 divided doses
Neonates (age 40 –44 weeks)	200 mg/kg BW in 3 divided doses
Infants 1–12 months (up to 10 kg BW)	200–300 b mg/kg BW in 3 divided doses
Infants and children aged 1–12 years (10–40 kg BW)	200–400 b mg/kg BW in 3–4 divided doses

Method of administration
Fosfomax™ is intended for intravenous administration. The duration of infusion should be at least 30 minutes for the 4 gm pack size. Use only clear solutions.

Preparation of the solution for infusion
Fosfomax™ must be reconstituted and diluted prior to administration. Water for Injections and Glucose Infusion 50 mg/ml (5 %) or Glucose Infusion 100 mg/ml (10 %) may be used as solvent for the reconstitution and dilution. Sodium Chloride containing solvents must not be used.

Reconstitution
Shake the vial prior to the reconstitution to loosen up the powder. Reconstitute the 4 gm vials with 20 ml of solvent. Shake well to dissolve. A slight degree of warming occurs when the powder is dissolved.

Dilution
Transfer the reconstituted contents of 4 gm vials into an infusion container with further 80 ml of solvent. The resulting solution for infusion is clear and colorless to slightly yellowish.

Duration of treatment
Treatment duration should take into account the type of infection, the severity of the infection as well as the patient's clinical response.

Contraindication
Hypersensitivity to the active substance, fosfomycin, or to any of the excipients.

Precaution
To avoid potential development of cross resistance co-administration of Fosfomax with other antibiotics is preferred.
A high sodium load associated with the use of fosfomycin may result in decreased levels of potassium in serum or plasma. A low-sodium diet is recommended during treatment. The substitution of potassium may be necessary in some cases. Serum electrolyte levels and water balance must be monitored during therapy. Caution is advised when fosfomycin is used in patients with cardiac insufficiency, hypertension, hyperaldosteronism, hypernatraemia or pulmonary edema.
Acute, potentially life-threatening hypersensitivity reactions (anaphylactic shock) may occur in very rare cases. At the first signs (including sweating, nausea, cyanosis), the infusion of fosfomycin must be immediately discontinued.

Side effects
The most commonly reported adverse reactions during treatment are gastrointestinal disturbances and injection site reactions. Other important adverse reactions include hypokalaemia and/or hypernatraemia.

Overdose
Experience regarding the overdose of fosfomycin is limited. Cases of hypotonia, somnolence, electrolytes disturbances, thrombocytopenia and hypoprothrombinemia have been reported with parenteral use of fosfomycin.

Use in Pregnancy and Lactation
Pregnancy
No clinical data on pregnancies are available. Fosfomycin should therefore not be prescribed to pregnant women unless the benefit outweighs the risk.

Lactation
After the administration of **Fosfomax**™, low quantities of fosfomycin were found in human milk. Fosfomycin should therefore not be administered during lactation, unless the benefit outweighs the risk.

Drug interaction
No drug-drug interaction studies have been performed with fosfomycin.

Storage
Store below 30° C temperature, protect from light & moisture. Keep out of the reach of children. After being mixed with solvent this medicine should be used immediately or stored in a refrigerator (at 2–8°C) protected from light for up to 24 hours.

How supplied
Fosfomax™ **4**: Each box contains one vial containing Fosfomycin Sodium EP with Succinic Acid sterile powder equivalent to Fosfomycin 4 gm, one 100 ml water for injection in PP bottle, one 20 ml disposable syringe and one infusion set with butterfly needle.

Manufactured by
SQUARE
PHARMACEUTICALS LTD.
BANGLADESH