

ADMINISTRATION: RENAL IMPAIRMENT

Dosage of Cefepime should be modified in renal impairment. After a normal first dose the maintenance dosage should be adjusted according to the patient's creatinine clearance (CC) and the severity of the infection:

.CC 30 to 60 ml/minute: 0.5 to 2 g every 24 hours (2 g every 12 hours for febrile neutropenia)

.CC 11 to 29 ml/minute: 0.5 to 1 g every 24 hours (2 g every 24 hours for febrile neutropenia)

.CC 10 ml/minute or less: 250 to 500 mg every 24 hours (1 g every 24 hours for febrile neutropenia)

Patients undergoing haemodialysis should be given a dose of 1 g on the first day of treatment, followed by 500 mg daily; the dose should be given after haemodialysis on those days. A dose of 1 g daily should be used for febrile neutropenia. Patients undergoing continuous ambulatory peritoneal dialysis should receive normal recommended doses at intervals of 48 hours. A dose of 2 g every 48 hours is used for febrile neutropenia.

Effects on the nervous system.

References to neurotoxicity, sometimes manifesting as non-convulsive status epilepticus, associated with use of cefepime (particularly but not exclusively in patients with impaired renal function).

WARNINGS

Hypersensitivity Reactions to Cefepime, Cephalosporins, Penicillins, or Other Drugs

Before therapy with Cefepime for Injection is instituted, careful inquiry should be made to determine whether the patient has had previous immediate hypersensitivity reactions to cefepime, cephalosporins, penicillins, or other drugs. Exercise caution if this product is to be given to penicillin-sensitive patients because cross-hypersensitivity among beta-lactam antibiotics has been clearly documented and may occur in up to 10% of patients with a history of penicillin allergy. If an allergic reaction to Cefepime occurs, discontinue the drug.

Use in Patients with Renal Impairment

In patients with creatinine clearance less than or equal to 60 ml/min, adjust the dose of (Cefepime for Injection) to compensate for the slower rate of renal elimination

Because high and prolonged serum Cefepime concentrations can occur from usual dosages in patients with renal impairment, the Cefepime dosage should be reduced when it is administered to such patients. Continued dosage should be determined by degree of renal impairment, severity of infection, and susceptibility of the causative organisms.

Drug Interactions

Renal function should be monitored carefully if high doses of aminoglycosides are to be administered with Cefepime because of the increased potential of nephrotoxicity and ototoxicity of aminoglycoside antibiotics. Nephrotoxicity has been reported following concomitant administration of other cephalosporins with potent diuretics such as furosemide.

Pregnancy

Teratogenic Effects: Pregnancy Category B

Cefepime was not teratogenic or embryocidal when administered during the period of organogenesis to rats at doses up to 1000 mg/kg/day (1.6 times the recommended maximum human dose calculated on a mg/m² basis) or to mice at doses up to 1200 mg/kg (approximately equal to the recommended maximum human dose calculated on a mg/m² basis) or to rabbits at a dose level of 100 mg/kg (0.3 times the recommended maximum human dose calculated on a mg/m² basis).

There are, however, no adequate and well-controlled studies of Cefepime use in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

Nursing Mothers

Cefepime is excreted in human breast milk in very low concentrations (0.5 mcg/ml). Caution should be exercised when Cefepime is administered to a nursing woman.

OVERDOSAGE

Patients who receive an overdose should be carefully observed and given supportive treatment. In the presence of renal insufficiency, hemodialysis, not peritoneal dialysis, is recommended to aid in the removal of cefepime from the body. Accidental overdosing has occurred when large doses were given to patients with impaired renal function. Symptoms of overdose include encephalopathy (disturbance of consciousness including confusion, hallucinations, stupor, and coma), myoclonus, seizures, and neuromuscular excitability.

Storage:- Store Below 25°C, Protected from light and moisture.

Improper Storage may deteriorate the product

Medicine:- Keep out of reach of children.

Presentation:- Each pack contain 1000 mg of Cefepime for injection in a vial and sterile water for injection IP

Manufactured by:



ICO: American Remedies LLC, DE, USA
Gala No. 165 to 111, 1st Flr, Bldg. No. E-15/A,
Haitar Complex, Bhivandi, Mumbai - 421302
At: VII, Surajpur Nahar Road Paotha Salhi,
Dist. Simru, Himachal Pradesh-173001
E-mail: info@americanremedies.in
© Copyright



For the use only of a Registered Medical Practitioner or a Hospital or a Laboratory

Cefepime Injection I.P.

AMERICAN
AFIPIME
Injection

Composition:-

Each Vial Contains:-

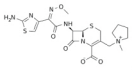
Cefepime Hydrochloride (Sterile) I.P.

Eq. to anhydrous Cefepime 1 g

(A sterile mixture of Cefepime HCl & Arginine)

Description

Cefepime hydrochloride IP is a semi-synthetic, broad spectrum, cephalosporin antibiotic for parenteral administration. The chemical name is 1-[(6R, 7R) 7-[2-(2-amino-4-thiazolyl)-glyoxylamido]-2-carboxy-8-oxo-5-thia-1-azabicyclo [4.2.0] oct-2-en-3-yl] methyl]-1-methylpyrrolidinium chloride.7-(Z)-(O-methylloxime), monohydrochloride, monohydrate, which corresponds to the following structural formula:



Cefepime

Cefepime hydrochloride is a white to pale yellow powder. Cefepime hydrochloride contains the equivalent of not less than 825 mg and not more than 911 mg of Cefepime (C₁₆H₁₅N₃O₅S) per mg, calculated on an anhydrous basis. It is highly soluble in water.

Cefepime for Injection is supplied for intramuscular or intravenous administration in strengths equivalent to 250 mg, 500 mg, 1g and 2 g of Cefepime in a sterile, dry mixture of Cefepime Hydrochloride and L-arginine. It contains the equivalent of not less than 90 percent and not more than 115 percent of the labeled amount of cefepime (C₁₆H₁₅N₃O₅S). The L-arginine, at an approximate concentration of 400 mg/g of Cefepime, is added to control the pH of the constituted solution at 4 to 6. Freshly constituted solutions of Cefepime for Injection will range in colour from pale yellow to amber.

CLINICAL PHARMACOLOGY

Cefepime is an antibacterial agent belonging to the cephalosporin class of antibacterial with *in vitro* antibacterial activity against facultative Gram-positive and Gram-negative bacteria.

PHARMACOLOGY

Pharmacokinetics

Cefepime is given by injection as the hydrochloride. It is rapidly and almost completely absorbed on intramuscular injection and mean peak plasma concentrations of about 14 and 30 micrograms/ml have been reported about 1.5 hours after doses of 500 mg and 1 g respectively. Within 30 minutes of similar intravenous doses, peak plasma concentrations of about 40 and 80 micrograms/mL are achieved. The plasma half-life of Cefepime is about 2 hours and is prolonged in patients with renal impairment. About 20% of Cefepime is bound to plasma proteins. Cefepime is widely distributed in body tissues and fluids. High concentrations are achieved in bile. Low concentrations have been detected in breast milk.

Cefepime is eliminated principally by the kidneys and about 85% of a dose is recovered unchanged in the urine. Cefepime is substantially removed by haemodialysis.

Metabolism and Excretion

Cefepime is metabolized to N-methylpyrrolidine (NMP) which is rapidly converted to the N-oxide (NMP-N-oxide). Urinary recovery of unchanged Cefepime accounts for approximately 85% of the administered dose. Less than 1% of the administered dose is recovered from urine as NMP. 6.8% as NMP-N-oxide, and 2.5% as an epimer of Cefepime. Because renal excretion is a significant pathway of elimination, patients with renal dysfunction and patients undergoing haemodialysis require dosage adjustment.

Uses and Administration

Cefepime is a fourth-generation cephalosporin antibacterial used in the treatment of infections due to susceptible organisms. They include infections of the urinary tract, respiratory tract, and skin. Cefepime is given as the hydrochloride by deep intramuscular injection, or intravenously by infusion over at least 30 minutes. Doses are expressed in terms of the equivalent amount of Cefepime; approx. 1800 mg of cefepime hydrochloride and L-Arginine mixture is equivalent to about 1 g of Cefepime. The usual adult dose is 1 to 2 g daily in 2 divided doses for mild to moderate infections; increased to 4 g daily in 2 divided doses in severe infections, although up to 6 g daily in 3 divided doses has been given for febrile neutropenia. Children aged over 2 months and weighing up to 40 kg may be given 50 mg/kg twice daily; this dose may be given 3 times daily for febrile neutropenia. For details of reduced doses to be used in renal impairment,