CEFIZIM$_{FORTE}$

CEFIXIME FOR ORAL SUSPENSION USP

Each 5 ml of reconstituted

Suspension contains:

Cefixime (as trihydrate) USP

Equivalent to Anhydrous Cefixime 100 mg

Excipients……q.s.

PHARMACOLOGICAL CLASSIFICATION :

Cefixime is a third-generation cephalosporin.

Category- Antimicrobial (Chemotherapeutic) agents- Broad and Medium Spectrum Antibiotics.

ACTION: Cefixime is highly stable in the presence of B-lactamase enzymes. As a result, many organizations resistant to penicillin and some cephalosporins due to the presence of beta-lactamases, may be susceptible to cefixime. The antimicrobial effect of cefixime results from inhibition of mucopeptide synthesis in the bacterial cell wall. Cefixime binds to specific penicillin-binding proteins (PBPs) located inside the bacterial cell wall, causing the inhibition of the third and last stage of bacterial cell wall synthesis.

PHARMACOLOGY:

Pharmacodynamic properties: Cefixime is an orally active cephalosporin antibiotic which has in-vitro bacterial activity against a wide variety of gram-positive and gram-negative organisms including streptococcus pneumoniae, streptococcus pyogenes, Escherichia coli, Proteus mirabillis, Klebsiella species, Haemophilus influence B-lactamase enzymes. Most strains of enterococci (Streptococcus faecalis, group D Streptococci) and staphylococci (including coagulase positive and negative strains and methicillin resistant strains) are resistant to Cefixime. In addition, most strains of Enterobacter and Pseudomonas, Bacteroides fragilis, Listeria monocytogenes and Clostridia are resistant to Cefixime.

Pharmacokinetic properties: Cefixime, given orally is about 40%-50% absorbed whether administered with or without food; however, time to maximal absorption is increased approximately 0.8 hours when administered with food.

Approximately 50% of the absorbed dose is excreted unchanged in the urine in 24hours. In animal studies, it was noted that cefixime is also excreted in the bile in excess of 10% of the administered dose. Serum protein binding is concentration independent with a bound fraction

of approximately 65%. The serum half-life of cefixime in healthy subjects is independent of dosage from an average 3.0 – 4.0 hours but may range up to 9 hours in some normal volunteers. Average AUC at steady state in elderly patients are approximately 40% higher than average AUC in other healthy adults. In subject with moderate impairment of renal function (20 to 40 ml/min creatinine clearance), the average serum half-life of cefixime is prolonged to 6.4 hours. In severe renal impairment (5 to ml/min creatinine clearance), the half-life increased to an average of 11.5 hours. The drug is not cleared significantly from the blood by hemodialysis or peritoneal dialysis. However, a study indicated that with doses of 400mg, patients undergoing hemodialysis have similar blood profiles as subjects with creatinine clearance of 21-60 ml/min. There is no evidence of metabolism of cefixime in vivo.

INDICATIONS: Cefixime is indicated for the treatment of the following infections, when caused by susceptible microorganisms.

1. Upper Respiratory Tract Infections: e.g bacterial pharyngitis, tonsillitis, otitis media, sinusitis.
2. Lower Respiratory Tract infections: e.g bronchitis.
3. Urinary Tract Infections: e.g acute cystitis.
4. Uncomplicated gonorrhea.

WARNINGS: Cefixime should be given with caution to penicillin-sensitive patients as there is some evidence of partial cross-allergenicity between he penicillin and the cephalosporins. Patients have had severe reactions (including anaphylaxis) to both classes of drugs. If an allergic effect occurs with Cefixime the drug should be discontinued and the patient must be treated with appropriate agents if necessary.

Cefixime should be administered with caution in patients with markedly impaired renal function (See Dosage in Renal Impairment) Prolonged use of Cefixime may result in the overgrowth of non-susceptible organisms. Cefixime has been shown to alter the normal flora of the colon and may permit overgrowth of Clostridia. Studies indicate a toxin(s) produced by Clostridium difficile is the primary cause of antibiotic associated pseudomembranous colitis. The product should be discontinued if diarrhea occurs.

DOSAGE AND DIRECTIONS FOR USE: Absorption of Cefixime is not significantly modified by the presence of food. The usual course of treatment is 5-14 days.

Adults and Children over 12years:

The recommended adult dosage is 200 – 400 mg daily given either as a single dose or in divided doses. In lower respiratory tract infections, 400 mg daily is recommended. For upper respiratory tract infections and uncomplicated urinary tract infections, 200mg once daily is usually effective.

For sinusitis the therapeutic dosage must be administered for 10 to 14 days. Treatment of uncomplicated Gonorrhea: The recommended dosage is 400 mg as a single oral dose.

Children: The recommended dosage for children is 8 mg/kg/day administered as a single dose or in two divided doses. As a general guide for prescribing in children the following daily in terms of volume of Oral Suspension are suggested:

Patients	Dose/Day mg	Dose/mL
6 months	75	3.75
1-4 years	100	5
5-10years	200	10

Dosage in Renal Impairment: Cefixime may be administered in the presence of impaired renal function. Normal dose and schedule may be given in patients with creatinine clearance of 20ml/min or greater.

In patients whose creatinine clearance is less than 20ml/min, it is recommended that a dose of 200mg once daily should not be exceeded. The dose and regimen for patients who are maintained on chronic ambulatory peritoneal dialysis or haemodialysis should follow the same recommendation as that for patients with creatinine clearance of less than 20 ml/min.

CONTRAINDICATIONS: Allergy to cephalosporins. Cefixime is contraindicated in patients with renal impairment with a creatinine clearance below 60ml/min.

Side Effects:

Gastrointestinal Disturbances: The most frequent side effect seen with cefixime are diarrhea and Stool changes. Moderate to severe diarrhea has been reported. Other gastrointestinal side effects seen less frequently are nausea, abdominal pain, dyspepsia, vomiting and flatulence. Pseudomembranous colitis has been reported.

Central Nervous System: Headache and dizziness.

Hypersensitivity Reactions: Allergies in the form of rash, pruritus, urticarial, drug fever and arthralgia have been observed. These reactions usually subside upon discontinuation of therapy.

Haematological and Clinical Chemistry: Thrombocytopenia, leukopenia and eosinophilia have been observed.

Miscellaneous: Other possible reactions include genital pruritus and vaginitis.

OVERDOSAGE AND ITS TREATMENT: No specific antidote exists. Cefixime is not removed from the circulation in significant quantities by dialysis. Treatment should be symptomatic and supportive.

PRESENTATION:

CEFIZM®FORTE: Available as dry powder for reconstitution in 60ml bottle in a cartoon.

KEEP MEDICINE OUT OF REACH OF CHILDERN.

SHAKE WELL BEFORE USE

STORAGE INSTRUCTIONS:

Store in a cool dry place below 25^0c. Protect from direct light. Do not freeze.