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

ZIFI DRY SYRUP 50 mg/5ml
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Cefixime For Oral Suspension USP

Product Description

Zifi Dry Syrup 50mg/5ml:

A mixture of white to off-white / yellowish colored free flowing granules which on reconstitution, gives yellow colored suspension having pleasant flavour.

Each 5 ml of reconstituted suspension contains:

Cefixime USP as Trihydrate equivalent to anhydrous Cefixime 50 mg.

Zifi Dry Syrup 100mg/5ml:

A mixture of white to off-white / orange colored free flowing granules which on reconstitution, gives orange colored suspension having pleasant flavour.

Each 5 ml of reconstituted suspension contains:

Cefixime USP as Trihydrate equivalent to anhydrous Cefixime 100 mg.

Pharmacodynamics

Cefixime is bactericidal and its antibacterial activity results form inhibition of mucopeptide synthesis in the bacterial cell wall leading to cell lysis and death of the bacteria. Clinical efficacy has been demonstrated in infections caused by commonly occuring pathogens including *Streptococcus pneumoniae, Streptococcus pyogenes, Escherichia coli, Proteus mirabilis, Kliebsiella* species, *Haemophilus influenzae* (beta-lactamase positive and negative), *Branhamella catarrhalis* (beta-lactamase positive and negative) and *Enterobacter* species. Cefixime is highly stable in the presence of beta-lactamase enzymes. Most strains of enterococci (*Streptococcus faecalis*, group D Streptococci) and Staphylococci (including coagulase positive and negative strains and meticillinresistant strains) are resistant to Cefixime. In addition, most strains of *Pseudomonas, Bacteriodes fragalis, Listeria monocytogenes* and *Clostridia* are resistant to Cefixime.

Pharmacokinetics

The absolute oral bioavailability of cefixime is in the range of 22-54%. Absorption is not significantly modified by the presence of food. Cefixime may therefore be given without regard to meals. From *in vitro* studies, serum or urine concentrations of 1 mcg/mL or greater were considered to be adequate for most common pathogens against which cefixime is active. Typically, the peak serum levels following the recommended adult or paediatric doses are between 1.5 and 3 mcg/mL. Little or no accumulation of cefixime occurs following multiple dosing. The pharmacokinetics of cefixime in healthy elderly (age> 64 years) and young volunteers (11-35) compared the administration of 400 mg doses once daily for 5 days. Mean Cmax and AUC values were slightly greater in the elderly. Elderly patients may be given the same dose as the general population. Cefixime is predominantly eliminated as unchanged drug in the urine. Glomerular filtration is considered the predominant mechanism. Metabolites of cefixime have not been isolated from human serum or urine. Serum protein binding is well characterised for human and animal sera; cefixime is almost exclusively bound to the albumin fraction, the mean free fraction being approximately 30%. Protein binding of cefixime is only concentration dependent in human serum at very high concentrations, which are not seen following clinical dosing. Transfer of 14C-labelled cefixime from lactating rats to their nursing offspring through breast milk was quantitatively small (approximately 1.5% of the mothers' body content of cefixime in the pup). No data are available on secretion of cefixime in human breast milk. Placetal transfer of cefixime was small in pregnant rats dosed with labelled cefixime.

Indication

Cefixime is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms. Uncomplicated Urinary Tract Infections caused by Escherichia coli & Proteus mirabilis Otitis Media caused by Haemophilus influenzae (b lactamase positive & negative strains), Moraxella catarrhalis (most of which are b lactamase positive) and Streptococcus pyogenes Pharyngitis and Tonsillitis caused by Streptococcus pyogenes. Penicillin is the usual drug of choice in the treatment of Streptococcus pyogenes infections, including the prophylaxis of Rheumatic Fever. Cefixime is generally effective in the eradication of Streptococcus pyogenes from the nasopharynx, however, data establishing the efficacy of Cefixime in the subsequent prevention of Rheumatic Fever are not available.

Acute Bronchitis and Acute Exacerbations of Chronic Bronchitis, caused by Streptococcus pneumoniae & Haemophilus influenzae (b lactamase positive and negative strains)

Recommended Dose

The recommended dose of the suspension is 8mg/kg body weight/day which may be administered as a single daily dose or may be given in two divided doses as 4mg/kg every 12 hours. Children weighing more than 50 kg or, older than 12 years should be treated with the recommended adult dose.

The recommended dose of Cefixime for Uncomplicated Multidrug Resistant and the Quinolone Resistant Typhoid Fever is 20mg/kg body weight/24 hours is divided BID doses for 7 days. In the treatment of infections due to Streptococcus pyrogens, a therapeutic dosage of Cefixime should be given for at least 10 days.

Pediatric Dosage Chart

Patient weight (kg)	Dose /Day (mg)	Dose/Day (ml)	Dose/Day (teaspoon)
6.25	50	2.5	½
12.5	100	5.0	1.0
18.75	150	7.5	1 ½
25.0	290	10.0	2.0
31.25	250	12.5	2 ½
37.5	300	15.0	3.0

Mode of Administration Syrup for oral consumption.

Reconstitution Direction: Reconstitute the powder with hot water and make up the volume up to the ring mark on the bottle.

Contraindication: Cefixime is contraindicated in patients with known allergy to cephalosporin class of antibiotics.

Warning and precautions

Cefixime should be given with caution to patients who have shown hypersensitivity to other drugs. Cephalosporins should be given with caution to penicillin-sensitive patients, as there is some evidence of partial cross-allergenicity between the penicillins and 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 treated with appropriate agents if necessary. Cefixime should be administered with caution in patients with markedly impaired renal function (See "Dosage in Renal Impairment"). Treatment with broad-spectrum antibiotics alters the normal flora of the colon and may permit overgrowth of clostridia. Studies indicate that a toxin produced by Clostridium difficile is a primary cause of antibiotic-associated diarrhoea. Pseudomembranous colitis is associated with the use of broad-spectrum antibiotics (including macrolides, semisynthetic penicillins, lincosamides and cephalosporins); it is therefore important to consider its diagnosis in patients who develop diarrhoea in association with the use of antibiotics. Symptoms of pseudomembranous colitis may occur during or after antibiotic treatment. Management of pseudomembranous colitis should include sigmoidoscopy, appropriate bacteriologic studies, fluids, electrolytes and protein supplementation. If the colitis does not improve after the drug has been discontinued, or if the symptoms are severe, oral vancomycin is the drug of choice for antibiotic-associated pseudomembranous colitis produced by C. difficile. Other causes of colitis should be excluded.

Interactions with other medicaments Carbamazepine: Elevated carbamazepine levels have been reported in postmarketing experience when Cefixime was administered concomitantly.Drug monitoring may be assistance in detecting alterations in carbamazepine plasma concentration.

Warfarin and Anticoagulants:

Increased Prothrombin Time, with or without clinical bleeding, has been reported when Cefixime was administered concomitantly.Care should therefore be taken in patients receiving anticoagulant therapy.

Probenecid:

Concomitant administration of Probenecid increases peak serum concentrations and the AUC while decreasing the renal clearance and volume of distribution of Cefixime.

Other Drugs:

Concomitant administration of Cefixime and Nifedipine increases the oral bioavailability of Cefixime as a result of higher peak plasma concentration and area under the plasma concentration time curve. In vitro, in pooled serum, Acetoaminophen, Heparin, Phenytoin, Diazepam, Ibuprofen or Furosemide had no clinically important effects on the protein binding of Cefixime. A false positive reaction for glucose in the urine may occur with Benedict's or Fehling's solutions or with copper sulphate test tablets, but not with tests based on enzymatic glucose oxidase reactions. A false positive direct Coombs test has been reported during treatment with cephalosporin antibiotics, therefore it should be recognised that a positive Coombs test may be due to the drug. In common with other cephalosporins, increases in prothrombin times have been noted in a few patients. Care should therefore be taken in patients receiving anticoagulation therapy.

Pregnancy and Lactation

Reproduction studies have been performed in mice and rats at doses up to 400 times the human dose and have revealed no evidence of impaired fertility or harm to the foetus due to cefixime. In the rabbit, at doses up to 4 times the human dose, there was no evidence of a teratogenic effect; there was a high incidence of abortion and maternal death, which is an expected consequence of the known sensitivity of rabbits to antibiotic-induced changes in the population of the microflora of the intestine. There are no adequate and well-controlled studies in pregnant women. Cefixime should therefore not be used in pregnancy or in nursing mothers unless considered essential by the physician.

Side Effects

Cefixime is generally well tolerated. The majority of adverse reactions observed in clinical trials were mild and self-limiting in nature. Gastrointestinal Disturbances: The most frequent side effects seen with cefixime are diarrhoea and stool changes; diarrhoea has been more commonly associated with higher doses. Some cases of moderate to severe diarrhoea have been reported; this has occasionally warranted cessation of therapy. Cefixime should be discontinued if marked diarrhoea occurs. Other gastrointestinal side effects seen less frequently are nausea, abdominal pain, dyspepsia, vomiting and flatulence. Pseudomembranous colitis has been reported (see above). Central Nervous System: Headache and dizziness. Hypersensitivity Reactions: Allergies in the form of rash, pruritus, urticaria, drug fever and arthralgia have been observed. These reactions usually subsided upon discontinuation of therapy. Rarely, erythema multiforme, Stevens-Johnson syndrome and toxic epidermal necrolysis have been reported. Haematological and Clinical Chemistry: Thrombocytopenia, leukopenia and eosinophilia have been reported. These reactions were infrequent and reversible. Mild transient changes in liver and renal function tests have been observed. Hepatic Disorders: Transient rises in liver transaminases, alkaline phosphatase and jaundice can also occur. Miscellaneous: Other possible reactions include genital pruritus and vaginitis.

Symptoms and Treatment of Overdose

Gastric lavage may be indicated; otherwise, no specific antidote is available for cefixime overdosage and toxicity. Cefixime is not removed from the circulation in significant quantities by dialysis.

Shelf life

18 months

Storage Condition

Store below 30°C. Protect from moisture and light.

The reconstituted suspension should be stored in a refrigerator and should be used within 7 days after reconstitution.

Presentation

15g presented in 30ml Amber colored bottle with ROPP aluminium caps.

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Manufactured in India by:
FDC Limited
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