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

8031077-9093

TOPCEF DC

(Cefixime 200 mg & Dicloxacillin (ER) 500 mg Tablets)

COMPOSITION :

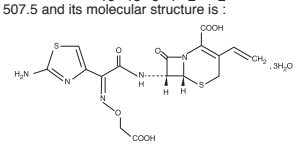
Each tablet contains :
Cefixime I.P. (as Trihydrate)
equivalent to Anhydrous Cefixime 200 mg
Dicloxacillin Sodium I.P.
(Extended Release Form)
equivalent to Dicloxacillin 500 mg
Colour : Titanium Dioxide I.P.

DESCRIPTION :

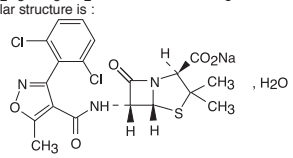
It is a combination of Cefixime & Dicloxacillin Sodium. Cefixime is an orally active cephalosporin antibiotic which has *in-vitro* bactericidal activity against a wide variety of Gram-positive and Gram-negative organisms including *Streptococcus pneumoniae, Streptococcus pyogenes, Escherichia coli, Proteus mirabilis, Klebsiella species, Haemophilus influenzae (beta-lactamase positive and negative), Moraxella (Branhamella) catarrhalis (beta-lactamase positive and negative).*

Cefixime is stable in the presence of beta-lactamase enzymes.

Cefixime is (6*R*,7*R*)-7-[[(2*Z*)-2-(2-aminothiazol-4-yl)-[(carboxymethoxy)imino]acetyl]amino]-3-ethenyl-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid trihydrate. Its molecular formula is $C_{16}H_{15}N_5O_7S_2.3H_2O$ and molecular weight is 507.5 and its molecular structure is :



Dicloxacillin sodium is a semisynthetic antibiotic substance which resists destruction by the enzyme penicillinase (beta-lactamase). Dicloxacillin Sodium is Sodium (2*S*,5*R*,6*R*)-6-[[[3-(2,6-dichlorophenyl)-5-methylisoxazol-4-yl]carbonyl]amino]-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylate monohydrate. Its molecular formula is $C_{19}H_{16}Cl_2N_3NaO_5S,H_2O$ and molecular weight is 510.3 and its molecular structure is :



PHARMACOLOGICAL ACTION:

Cefixime is a bactericidal antibiotic and is stable to hydrolysis by many beta-lactamases. Cefixime is classified as a third generation cephalosporin antibiotic.

Cefixime is an orally active, broad spectrum antibiotic. Cefixime exhibits good *in vitro* activity against most of the *Enterobacteriaceae, Haemophilus influenzae and Neisseria gonorrhoeae (including beta-lactamase producing strains), beta-haemolytic streptococci of groups A and B and Streptococcus pneumoniae.*

Cefixime, like other cephalosporins and penicillins, kills bacteria by interfering in the synthesis of the bacterial cell wall. Cefixime binds with high affinity to penicillin-binding proteins in the bacterial cell wall, thus interfering with peptidoglycan synthesis. Ultimately, the bacterial cell wall is weakened, and the cell swells and then ruptures. Cefixime is bactericidal against a broad spectrum of bacteria at easily achievable plasma concentrations. Although cefixime is fairly stable to beta-lactamases, it still may be inactivated by beta-lactamase produced by some bacteria.

Dicloxacillin Sodium is a semisynthetic antibiotic substance, which resists destruction by the enzyme penicillinase (beta-lactamase).

Dicloxacillin exerts a bactericidal action against penicillin-susceptible microorganisms during the state of active multiplication. All penicillins inhibit the biosynthesis of the bacterial cell wall. The drugs in this class are highly resistant to inactivation by staphylococcal penicillinase and are active against penicillinase-producing and non-penicillinase-producing strains of *Staphylococcus aureus*. The penicillinase-resistant penicillins are active *in vitro* against a variety of other bacteria.

PHARMACOKINETICS :

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.

Dicloxacillin is more acid-stable than many other penicillins and can be given orally, in addition to parenteral routes. However, like methicillin, it is less potent than benzylpenicillin against non-β- lactamase- producing Gram-positive bacteria.

Dicloxacillin has similar pharmacokinetics, antibacterial activity and indications to flucloxacillin and the two agents are considered interchangeable. It is believed to have lower incidence of severe hepatic adverse effects than flucloxacillin, but a higher incidence of renal adverse effects.

INDICATIONS:

For the treatment of adult patients with upper and lower respiratory tract infections, skin and soft tissue infections.

DOSAGE & ADMINISTRATION:

Adults: One tablet twice daily. This dosage may be given as a single daily dose or one tablet every 12 hours.

Tablets to be swallowed whole, not to be crushed, chewed or broken.

CONTRAINDICATIONS:

The preparation is contraindicated in patients with known hypersensitivity to cephalosporin and penicillin antibiotics or to any ingredient in the formulation.

WARNINGS & PRECAUTIONS:

The dose of Cefixime should be adjusted in patients with renal impairment as well as those undergoing Continuous Ambulatory Peritoneal Dialysis (CAPD) and hemodialysis (HD). Patients on dialysis should be monitored carefully.

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.

Pseudo membranous colitis is associated with the use of broad-spectrum antibiotics (including macrolides, semi-synthetic penicillins, lincosamides and cephalosporins); it is therefore important to consider its diagnosis in patients who develop diarrhea in association with the use of antibiotics. Symptoms of pseudomembranous colitis may occur during or after antibiotic treatment.

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. The safety and efficacy of Cefixime in children aged less than 6 months old has not been established.

If any of the following reactions occur, stop taking TOPCEF DC and notify the physician: shortness of breath, wheezing, skin rash, mouth irritation, black tongue, sore throat, nausea, vomiting, diarrhoea, fever, swollen joints, or any unusual bleeding or bruising. Differential cell counts should be obtained prior to initiation of therapy and at least weekly during therapy with penicillinase-resistant penicillins.

AST (SGOT) and ALT (SGPT) values should be obtained periodically during therapy to monitor for possible liver function abnormalities.

ADVERSE EFFECTS:

The most frequent adverse effects involve the G.I. Tract. Diarrhoea, abdominal pain, nausea, vomiting, has been reported in patients in receiving the drug. Headache, malaise and fatigue have also been reported in some of the patients. Cefixime is generally well tolerated. The majority of adverse reactions observed in clinical trials were mild and self-limiting in nature.

Gastrointestinal Disturbances: Diarrhoea, stool changes. Diarrhoea generally occurs at higher doses. Cefixime should be discontinued if marked diarrhoea occurs. Other gastrointestinal side effects seen less frequently are nausea, abdominal pain, dyspepsia, vomiting, stomatitis, black or hairy tongue and flatulence. Pseudomembranous colitis has been reported. Rare reports of oesophageal burning, oesophagitis, and oesophageal ulceration have been reported.

Central Nervous System: Headache, dizziness and Neuro toxic reactions similar to those observed with penicillin G (e.g., lethargy, confusion, twitching, multifocal myoclonus, and localized or generalized epileptiform seizures) may occur with patients having renal insufficiency.

Hypersensitivity Reactions: Allergies in the form of rash, pruritus, drug fever and arthralgia have been observed, including rare cases of urticaria or angioedema. 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: Thrombocytosis, thrombocytopenia, leucopenia, hypereosinophilia, neutropenia, agranulocytosis, hemolytic anemia, granulocytopenia, and bone marrow depression 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 (rarely cholestatic hepatitis) can also occur.

Miscellaneous: Other possible reactions include genital pruritus and vaginitis.

DRUG INTERACTIONS:

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. Cefixime is administered concomitantly. Drug monitoring may be of assistance in detecting alterations in carbamazepine plasma concentrations. Tetracycline, a bacteriostatic antibiotic, may antagonize the bactericidal effect of penicillin and concurrent use of these drugs should be avoided. Dicloxacillin Sodium may interfere with the effectiveness of birth control pills. Probenecid may prolong the serum penicillin level.

Storage :

Store in a dry place at a temperature not exceeding 25°C. Protect from light. Keep all medicines out of reach of children.

Presentation :

Topcef DC is available as strip pack of 10 tablets.

torrent

Marketed by :
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