

EvoFix®(Cefixime USP)
Suspension & Capsulesایوو فیکس
سپینشن اور کیپسول**EvoFix-DS®**(Cefixime USP)
Suspensionایوو فیکس-ڈی ایس
سپینشن**COMPOSITION****EvoFix Capsules 400 mg:**Each capsule contains:
Cefixime 400 mg
(as Cefixime trihydrate)
(PharmEvo Specs.)**EvoFix Granules for Oral Suspension:**Each 5ml of reconstituted suspension contains
Cefixime 100 mg
(as Cefixime trihydrate)
(USP Specs.)**EvoFix-DS Granules for Oral Suspension:**Each 5ml of reconstituted suspension contains:
Cefixime..... 200 mg
(as Cefixime trihydrate)
(USP Specs.)**DESCRIPTION**Cefixime is a semisynthetic, cephalosporin antibacterial for oral administration. Chemically, it is (6R,7R)-7-[2-(2-Amino-4-thiazolyl)glyoxylamido]-8-oxo-3-vinyl-5-thia-1-azabicyclo [4.2.0] oct-2-ene-2-carboxylic acid, 7Z-(Z)-[O-(carboxy methyl) oxime] trihydrate. Chemical Formula is $C_{16}H_{18}N_5O_7S_2 \cdot 3H_2O$ **CLINICAL PHARMACOLOGY****Mechanism of action**

This third-generation oral cephalosporin acts by binding to one or more penicillin-binding proteins; it arrests bacterial cell-wall synthesis and inhibits bacterial growth. Cefixime is stable in the presence of certain beta-lactamase enzymes. As a result, certain organisms resistant to penicillins and some cephalosporins due to the presence of beta-lactamases may be susceptible to cefixime.

MICROBIOLOGY**Susceptible organisms**In-vitro antimicrobial activity and clinical efficacy has been shown for: *Streptococcus pneumoniae*, *Streptococcus pyogenes*, *Neisseria gonorrhoea*, *Proteus mirabilis*, *Moraxella catarrhalis*, *Enterobacter species*, *Escherichia coli*, *Haemophilus influenzae*.**Favorable in-vitro susceptibility has been shown for:***Klebsiella species*, *Haemophilus parainfluenzae*, *Proteus vulgaris*, *Shigella species*, *Salmonella species*, *Pasteurella multocida*.**Resistant organisms**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 *Pseudomonas*, *Bacteriodes fragilis*, *Listeria monocytogenes* and *Clostridia* are resistant to Cefixime.**Mechanism of Resistance**

Resistance is most commonly attributed to alterations in penicillin binding proteins (PBPs)

PHARMACOKINETICS**Absorption:**

EvoFix capsules are also 40% - 50% absorbed after oral administration. Peak serum concentrations usually occur between 3 and 8 hours following oral administration of a single 400 mg capsule. EvoFix suspension, given orally, is about 40% to 50% absorbed whether administered with or without food; however, time to maximal absorption is increased approximately 0.8 hours when administered with food. Peak serum concentrations occur between 2 and 5 hours following a single administration of 200 mg of suspension.

Distribution:

Serum protein binding is concentration independent with a bound fraction of approximately 65%. Adequate data on CSF levels of cefixime are not available.

Metabolism:

There is no evidence of metabolism of cefixime in vivo

Elimination:

Approximately 50% of the absorbed dose is excreted unchanged in the urine in 24 hours. In animal studies, it was noted that cefixime is also excreted in the bile in excess of 10% of the administered dose. The serum half-life of cefixime in healthy subjects is independent of dosage form and averages 3 to 4 hours but may range up to 9 hours in some normal volunteers.

INDICATIONS

Cefixime is indicated in the treatment of adults and pediatric patients 6 months of age or older with the following infections when caused by susceptible micro-organisms:

Urinary Tract InfectionsCefixime is used in the treatment of Urinary Tract Infections (cystitis, cysto-urethritis and un-complicated pyelonephritis) caused by *Escherichia coli* and *Proteus mirabilis*, *Streptococcus pneumoniae*, *Streptococcus pyogenes*, *Klebsiella species*, *Haemophilus influenzae* (beta-lactamase positive and negative), *Branhamella catarrhalis* (beta-lactamase positive and negative) and *Enterobacter species*.**Upper Respiratory Tract Infections:**• Otitis Media: Cefixime is used in the treatment of Otitis media caused by *Haemophilus influenzae*, *Moraxella catarrhalis*, *Streptococcus pyogenes* and *Streptococcus pneumoniae*.• Pharyngitis and Tonsillitis: Cefixime is indicated in Pharyngitis/Tonsillitis caused by *Streptococcus pyogenes*.• Acute Exacerbations of Chronic Bronchitis: Cefixime is indicated to treat acute exacerbations of chronic bronchitis caused by *Streptococcus pneumoniae* and *Haemophilus influenzae*.**Uncomplicated Gonorrhea (cervical/urethral):** Cefixime is used to treat uncomplicated cervical or urethral gonorrhea caused by *Neisseria gonorrhoeae*.**DOSAGE AND ADMINISTRATION**

The usual course of treatment is 7 days. This may be continued for up to 14 days if required.

Adult DosageThe recommended dose of cefixime in adults is 400 mg daily for the treatment of uncomplicated cervical/urethral gonococcal infections, a single oral dose of 400 mg is recommended. In the treatment of infections due to *Streptococcus pyogenes*, a therapeutic dosage of cefixime should be administered for at least 10 days.**Pediatric Dosage**

In pediatric population, the recommended formulation is EvoFix Suspension or EvoFix DS Suspension.

Children and Adolescents over 10 years

The recommended dosage is 200-400 mg daily according to the severity of infection, given either as a single dose or in two divided doses.

Children 6 months to 10 years of age:

The recommended dose is 8 mg/kg/day of the suspension. This may be administered as a single daily dose or may be given in two divided doses, as 4 mg/kg every 12 hours.

PEDIATRIC DOSAGE CHART

Doses are suggested for each weight range and rounded-off for ease of administration

Patient Weight (kg)	Dose/Day (mg)	PEDIATRIC DOSAGE CHART	
		EVOFIX Suspension 100mg/5ml	EVOFIX-DS Suspension 200mg/5ml
	Dose/Day (mg)	Dose/Day (mL)	Dose/Day (mL)
5 to 7.5*	50	2.5	-
7.6 to 10*	80	4	2
10.1 to 12.5	100	5	2.5
12.6 to 20.5	150	7.5	4
20.6 to 28	200	10	5
28.1 to 33	250	12.5	6
33.1 to 40	300	15	7.5
40.1 to 45	350	17.5	9
45.1 or greater	400	20	10

Dosage in Renal Impairment: Cefixime may be administered in the presence of impaired renal function. Normal dose and schedule may be employed in patients with creatinine clearances of 60 mL/min or greater. Patients whose creatinine clearance is between 21 and 60 mL/min or patients who are on renal hemodialysis may be given 6.5ml of EvoFix for Oral Suspension (200 mg/5 mL) daily or 13 ml of EvoFix for Oral Suspension (100 mg/5 mL) daily.

Patients whose creatinine clearance is 20 mL/min or less, or patients who are on continuous ambulatory peritoneal dialysis may be given 200 mg daily (i.e. half of the 400 mg tablet).

Neither hemodialysis nor peritoneal dialysis removes significant amounts of drug from the body.

