CEDROX

(Cefadroxil Monohydrate)

سیڈروکس

(سیفاڈروکسل مونوہائیڈریٹ)

DESCRIPTION
CEDROX contains cefadroxil, a semisynthethetic cephalosporin antibiotic intended for oral administration.

CLINICAL PHARMACOLOGY
Cefadroxil is rapidly absorbed after oral administration. Following single doses of 500mg and 1g, average peak serum concentrations were approximately 16 and 28 μ/mL, respectively. Measurable serum levels were present 12 hours after administration. Absorption characteristics are not different between fasted and nonfasted subjects. Over 90% of the drug is excreted unchanged in the urine within 24 hours. The elimination half-life is about 2 hours. Peak urine concentrations are approximately 1800 μ/mL during the period following a single 500-mg oral dose. Increases in dosage generally produce a proportionate increase in cefadroxil urinary concentration. The urine antibiotic concentration, following a 1-g dose, was maintained well above the MIC of susceptible urinary pathogens for 20 to 22 hours.

Microbiology
In vitro tests demonstrate that the cephalosporins are bactericidal because of their inhibition of cell-wall synthesis. CEDROX is active against the following organisms in *vitro:*
Beta-hemolytic streptococci
Streptococcus pneumoniae
Staphytococci, including coagulase-positive, coagulase-negative, and penicillinase-producing strains
Escherichia coli
Proteus mirabilis
Klebsiella species
Moraxella (Branhamella) catarrhalis
Bacteroides species (excluding Bacteroides *fragilis)*
Other strains of sensitive gram-negative organisms include some strains of *Haemophilus influenzae, Salmonella* species and *Shigella* species.
Note: Most strains of Enterococci *(Enterococcus faecalis and E. faecium)* are resistant to CEDROX. CEDROX is not active against most strains *of* Enterobacter species, *Morganella morganii* (formerly Proteus morganii), and Proteus *vulgaris.* It has no activity against *Pseudomonas* species and *Acinetobacter calcoaceticus* (formerly *Mima and Herellea species).*

Disc Susceptibility Tests
Quantitative methods that require measurement of zone diameters give the most precise estimates of antibiotic susceptibility. One recommended laboratory procedure uses a cephalosporin class disc for testing susceptibility; interpretations correlate zone diameters of this disc test with MIC values for CEDROX. With this procedure, a report of "susceptible" indicates that the infecting organism is likely to respond to therapy. A report of "resistant" indicates that the infecting organism is not likely to respond to therapy. A report of "intermediate susceptibility" suggests that the organism would be susceptible if the infection is confined to an area where adequate drug concentrations can be achieved, for example, the urinary tract.

INDICATIONS
CEDROX is indicated in the treatment of the following infections when due to susceptible microorganisms:
Upper and lower respiratory infections
Skin and soft tissue infections
Genitourinary tract infections
Other infections: osteomyelitis and septic arthritis
Note: Culture and susceptibility tests should be initiated prior to and during therapy. Renal function studies should be performed when indicated. Surgical procedures should be performed when indicated.
Note: Only penicillin by the intramuscular route of administration has been shown to be effective in the prophylaxis of rheumatic fever. CEDROX is generally effective in the eradication of streptococci from the oropharynx. However data establishing the efficacy of CEDROX for the prophylaxis of subsequent rheumatic fever are not available.

CONTRAINDICATIONS
CEDROX is contraindicated in patients with known allergy to the cephalosporin group of antibiotics or to any component of the formulation.

WARNINGS
Before therapy with CEDROX is instituted, careful inquiry should be made to determine whether the patient has had previous hypersensitivity reactions to CEDROX, other cephalosporins, penicillins, or other drugs. If this product is to be given to penicillin-sensitive patients, caution should be exercised because cross-sensitivity among beta-lactam antibiotics has been clearly documented and may occur in upto to 10% of patients with a history of penicillin allergy. If an allergic reaction to CEDROX occurs, discontinue the drug. Serious acute hypersensitivity reactions may require

طریقہ خوراک :
سیڈروکس (سیفاڈروکسل) تیزاب میں مستحکم ہے اور کھانے کو مد نظر رکھے بغیر اورل دی جاسکتی ہے۔

بالغ :
پیشاب کی نالی کے تعدیے: غیر پیچیدہ زیریں پیشاب کی نالی کے تعدیوں (جیسے سسٹائٹس) کے لئے عمومی خوراک ایک یا دوگرام روزانہ ایک یا دو حصّوں میں تقسیم کر کے دی جاسکتی ہے۔ دوسرے تمام پیشاب کی نالی کے تعدیوں کے لئے عام خوراک ۲ گرام فی دن، دن میں دو مرتبہ تقسیم شدہ ہے۔

جلد اور جلد کی ساخت کے تعدیے: جلد اور جلد کی ساخت کے تعدیوں کے لئے عمومی خوراک ایک گرام روزانہ ایک ساتھ یا دو حصّوں میں تقسیم کر کے دی جاسکتی ہے۔

فیرنکس اور ٹانسلز کی سوزش: گروپ اے بیٹا ہیمولائنک اسٹرپٹوکوسائی کی وجہ سے اگر فیرنکس اور ٹانسلز کی سوزش ہو تو خوراک ایک گرام روزانہ ایک ساتھ یا دو حصّوں میں تقسیم کر کے کم از کم دس دن تک دینی چاہیئے۔

بالائی اور زیریں تنفس کی نالی کے تعدیے: معمولی تعدیوں کے لئے عمومی خوراک اگر ام روزانہ دو حصّوں میں بانٹ کر دینی چاہیئے۔ درمیانے درجے سے شدید تعدیوں کے لئے تجویز کردہ خوراک ایک سے دو گرام روزانہ تقسیم کر کے دن میں دو مرتبہ ہے۔

عمومی خوراک: بچوں کے لئے: ۲۵ سے ۵۰ ملی گرام فی کلوگرام جسمانی وزن کے حساب سے، یومیہ دو خوراکوں میں بانٹ کر یا ڈاکٹر کی ہدایت کے مطابق استعمال کریں۔ فیرنکس اور ٹانسلز کی سوزش اور اپیٹیگو کے لئے تجویز کردہ خوراک روزانہ ایک ساتھ یا دو حصّوں میں بانٹ کر دینی چاہیئے۔ (ہر ۱۲ گھنٹے بعد) بیٹا ہیمولائنک اسٹرپٹوکوسائی تعدیوں کے لئے معالجاتی خوراک کم از کم دس دن تک دینی چاہیئے۔

دوا تیار کرنے کا طریقہ: سیڈروکس سسپینشن ۱۲۵ ملی گرام/۵ ملی لیٹر، ۲۵۰ ملی گرام/۵ ملی لیٹر (۶۰ ملی لیٹر) اور ۱۲۵ ملی گرام/۵ ملی لیٹر (۵ ملی لیٹر)۔
بوتل کے لیبل پر دیئے گئے نشان تک تازہ ابلا ہوا ٹھنڈا پانی ڈالیں اور بوتل کو اچھی طرح ہلالیں تا کہ تمام پاؤڈر اچھی طرح حل ہو جائے اور اطمینان کرلیں کہ حل شدہ سسپینشن لیبل پر دیئے گئے نشان کے برابر ہے۔

تیار شدہ سسپینشن اگر کمرے کے درجہ حرارت میں رکھا گیا ہو تو ۷ دن تک اور ریفریجریٹر میں رکھا گیا ہو تو ۱۴ دن تک استعمال کیا جاسکتا ہے۔

اسٹوریج: خشک جگہ پر ۳۰ ڈگری درجہ حرارت پر رکھیں۔ ہدایت کے مطابق رکھنے کی صورت میں سیڈروکس سسپینشن (خشک حالت میں) کیپسول اور گولیاں ڈبے پر دی گئی میعاد تک قابلِ استعمال رہتی ہیں۔

ہدایات

- ڈھکن کو اچھی طرح بند رکھیں۔
- تمام دوائیں بچوں کی پہنچ سے دور رکھیں۔
- استعمال سے پہلے بوتل کو اچھی طرح ہلالیں۔

emergency treatment measures.
Pseudomembranous colitis has been reported with nearly all antibacterial agents, and may range from mild to life-threatening. Therefore, it is important to consider this diagnosis in patients who present with diarrhea subsequent to the administration of antibacterial agents. After the diagnosis colitis has been established, therapeutic measures should be initiated.

PRECAUTIONS

General

CEDROX should be used with caution in the presence of impaired renal function. (See DOSAGE AND ADMINISTRATION for dosage guidelines). In patients with known or suspected renal impairment, careful clinical observation and appropriate laboratory studies should be made prior to and during therapy Prolonged use of CEDROX may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken. Positive direct Coombs' tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs' testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs' test may be due to the drug.

CEDROX should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.

Carcinogenesis, Mutagenesis and Impairment of Fertility

No long-term studies have been performed to determine carcinogenic potential. No genetic toxicity tests have been performed.

Pregnancy

Reproduction studies have been performed in mice and rats at doses up to 11 times the human dose and have revealed no evidence of impaired fertility or harm to the fetus due to cefadroxil. There are, however, no adequate and well controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, so this drug should be used during pregnancy only if clearly needed.

Nursing Mothers

Cefadroxil is distributed into breast milk: therefore, this drug should be used with caution in nursing women.

ADVERSE EVENTS

The adverse events observed with cafadroxil are similar to those observed with other cephalosporins.
Gastrointestinal Symptoms of pseudomembranous colitis can appear during or after antibiotic treatment. Nausea, vomiting, and dyspepsia have been reported rarely. Administration with food decreases nausea. Diarrhea has also occurred.
Hypersensitivity - In common with other cephalosporins, allergic reactions, including pruritus, rash, urticaria, and angioedema have been observed. These reactions usually subsided upon discontinuation of the drug. Erythema multiforme, Stevens-Johnson syndrome, serum sickness, and anaphylaxis have been reported rarely.
Other reactions have included genital pruritus, genital candidiasis, vaginitis, moderate transient neutropenia, fever, and elevations in serum transaminase. In common with other cephalosporins, agranulocytosis, thrombocytopenia, and arthralgia have been rarely reported. During postmarketing experience, hepatic dysfunction, including cholestasis has been reported, and rare reports of idiosyncratic hepatic failure have been received; because of the uncontrolled nature of these spontaneous reports, a causal relationship to cefadroxil has not been established.

OVERDOSAGE

Data from a study of children under six years of age who had ingested a maximum of 250 mg/kg of penicillin or a cephalosporin derivative suggested that ingestion of less than 250 mg/kg of cephalosporins (i.e., 5 to 10 times recommended dose) is not associated with significant outcomes. No treatment is required other than general support and observation. During the 72-hour evaluation period, most of the children remained asymptomatic. Gastrointestinal disturbances and rash were reported in some children. For amounts greater than 250 mg/kg, induce gastric emptying (emesis induction or gastric lavage). For information on removal of drug by hemodialysis, see Dosage and Administration.

DOSAGE AND ADMINISTRATION

CEDROX is acid stable and may be administered orally without regard to meals. Administration with food may be helpful in diminishing potential gastrointestinal complaints occasionally associated with oral cephalosporin therapy.

Adults

Urinary Tract Infections
For uncomplicated lower urinary tract infections (i.e., cystitis) the usual dosage is 1 or 2 g per day in a single dose or in two equally divided doses. For all other urinary tract infections the usual dosage is 2 g per day in two equally divided doses.

Skin and Skin Structure Infections

For skin and skin structure infections the usual dosage is 1 g per day in a single dose or two equally divided doses.

Pharyngitis and Tonsillitis

Due to Group A beta-hemolytic streptococci
Treatment of Group A beta-hemolytic streptococcal pharyngitis and tonsillitis-1 g per day in a single dose or two equally divided doses for at least ten days.

Upper and Lower Respiratory Tract Infections

For mild infections the usual dosage is 1 g per day in two equally divided doses. For moderate to severe infections the recommended dosage is 1 g to 2 g daily in two equally divided doses.

Children

The recommended dosage for children is 25 to 50 mg/kg day in two equally divided doses (every 12 hours) as indicated. For pharyngitis, tonsillitis, and impetigo the recommended daily dosage may be administered as a single dose or in two equally divided doses (every 12 hours).

CEDROX ORAL SUSPENSION (dose q 12h)

Child's Weight (kg)	125mg/5mL (25 mg/mL)	250mg/5mL (50 mg/mL)
5	2.5 - 5 mL	—–
10	5 - 10 mL	2.5 – 5 mL
15	7.5 - 15 mL	3.75-7.5 mL
20	10 - 20 mL	5-10 mL
25	12.5 - 25 mL	6.25 -12.5 mL

In the treatment of beta-hemolytic streptococcal infections a therapeutic dosage of CEDROX should be administered for at least 10 days. For the treatment of beta-hemolytic streptococcal pharyngitis or tonsillitis in both adults and children CEDROX may be administered in the usual daily dose either in two divided doses or a single dose.
In patients with renal impairment the dosage of cefadroxil should be adjusted according to creatinine clearance rates to prevent drug accumulation. The following schedule is suggested. In adults, the initial dose is 1g of CEDROX and the maintenance dose (based on the creatinine clearance rate) is 500 mg at the time intervals listed below.

Creatinine Clearance (mL/min1.73 m2)	Dosage Interval
0 - 10	36 hours
10 - 25	24 hours
25 - 50	12 hours

Patients with creatinine clearance rates over 50 mL/min/ 1.73m2 may be treated as if they were patients having normal renal function.
In five adult anuric patients it was demonstrated that an average of 63% of a 1-g oral dose is extracted from the body during a 6 to 8 hour hemodialysis session.

Direction for Preparation:

Oral Suspension

(For CEDROX Suspension 125mg / 5ml & 250mg /5ml Trade Pack (60ml) and 125mg / 5ml P/S. Add freshly boiled and cool water to mark point given on the bottle label, invert and shake vigorously to set homogenous supension and ensure reconstituted suspension as upto the label mark point. Once dispensed the suspension is stable for 7 days at room temperature or 14 days when stored under refrigeration.

STORAGE

Store in a dry place below 30°C. When stored under recommended conditions CEDROX unconstituled powder, capsules and tablets will remain stable until expiration date indicated on the package.

HOW SUPPLIED

CEDROX film coated tablets are supplied in blister pack of 2 x 5's containing cefadroxil monohydrate equivalent to cefadroxil (U.S.P.)....1g.
CEDROX capsules are supplied in blister pack of 1 x 12's containing cefadroxil monohydrate equivalent to cefadroxil (U.S.P.)....500 mg.
CEDROX 60ml oral suspension is supplied in glass bottle containing in each 5ml (after reconstituted) cefadroxil monohydrate equivalent to cefadroxil (U.S.P.) ..... 125mg.
CEDROX 60ml oral suspension is supplied in glass bottle containing in each 5ml (after reconstituted) cefadroxil monohydrate equivalent to cefadroxil (U.S.P) ..... 250mg.

Manufactured by:

Platinum
Pharmaceuticals (Pvt.) Ltd.

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