Soficlor®

For Oral Suspension

Cefaclor Monohydrate
Equivalent to Cefaclor

Composition
Cefaclor monohydrate equivalent to cefaclor anhydrous 125 mg / 5ml

Sodium Benzoate 0.030g/60ml as preservative

Clinical Pharmacology
Microbiology -In vitro tests demonstrate that the bactericidal action of the cephalosporins results from inhibition of cell-wall synthesis. Cefaclor is active in vitro against most strains of clinical isolates of the following organisms:

- Aerobs, Gram-positive:
  Staphylococci, including coagulase-positive, coagulase-negative, and penicillinase-producing strains (when tested by in vitro methods); exhibit cross-resistance between cefaclor and methicillin.
  Streptococcus pyogenes
  (group A β-hemolytic streptococci)
  Streptococcus pneumoniae
- Aerobs, Gram-negative:
  Moraxella (Branhamella) catarrhalis
  Haemophilus influenzae, including
  β-lactamase producing ampicillin-resistant strains
  Escherichia coli
  Proteus mirabilis
  Klebsiella sp
  Citrobacter diversus
  Neisseria gonorrhoeae
- Anaerobs:
  Propionibacterium acnes and *Bacteroides* sp (excluding *Bacteroides fragilis*)
  Peptococci
  Peptostreptococci
  Note: *Pseudomonas* sp, *Acinetobacter calcoaceticus* (formerly *Mima* sp and *Herellea* sp), and most strains of enterococci (*Enterococcus faecalis* [formerly *Streptococcus faecalis*], group D streptococci), *Enterobacter* sp, indole-positive *Proteus*, and *Serratia* sp are resistant to cefaclor. When tested by in vitro methods, staphylococci exhibit cross-resistance between cefaclor and methicillin-type antibiotics. Cefaclor is not active against *Morganella morganii, Proteus vulgaris*, and *Providencia rettgeri*.

Disk Susceptibility Tests
Quantitative methods that require measurement of zone diameters give the most precise estimates of antibiotic susceptibility. One such procedure has been recommended for use with disks for testing susceptibility to cephalothin. The currently accepted zone diameter interpretative criteria for the cephalothin disk are appropriate for determining bacterial susceptibility to cefaclor. With this procedure, a report from the laboratory 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 tissues and fluids (eg, urine) in which high antibiotic levels can be obtained or if high dosage is used.

Pharmacokinetics
Cefaclor is well absorbed after oral administration to fasting subjects. Total absorption is the same whether the drug is given with or without food; however, the presence of food may delay the absorption. About 25% is bound to plasma proteins. Cefaclor appears to be widely distributed in the body; it crosses the placenta and is excreted in low concentration in breast milk.
Approximately 60% to 85% of the drug is excreted unchanged in the urine within 8 hours, the greater portion being excreted in the first 2 hours. The serum half-life in normal subjects is 0.6 to 0.9 hour. In patients with reduced renal function, the serum half-life of cefaclor is slightly prolonged. In those with complete absence of renal function, the plasma half-life of the intact molecule is 2.3 to 2.8 hours. Excretion pathways in patients with markedly impaired renal function have not been determined. Haemodialysis shortens the half-life by 25% to 30%.

Indications
Soficlor Oral Suspension is indicated in the treatment of the following infections when caused by susceptible strains of the microorganisms:
Otitis media: caused by *S. pneumoniae, H. Influenzae*, staphylococi, *S. pyogenes* (group A β-hemolytic streptococci), and *M. catarrhalis*.
Lower respiratory tract infections: including pneumonia, caused by *S. pneumoniae, H. Influenzae, S. pyogenes* (group A β-hemolytic streptococci), and *M. catarrhalis*.
Upper respiratory tract infections: including pharyngitis and tonsillitis, caused by *S. pyogenes* (group A β-hemolytic streptococci), and *M. catarrhalis*.
Note: Penicillin is usually the drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. Amoxycillin has been recommended by the American Heart Association as the standard regimen for the prophylaxis of bacterial endocarditis for dental, oral and upper respiratory tract procedures, with penicillin V, a rational and acceptable alternative in the prophylaxis against α-hemolytic streptococcal bacteremia in this setting. Cefaclor is generally effective in the eradication of streptococci from the nasopharynx; however, substantial data establishing the efficacy of cefaclor in the subsequent prevention of either rheumatic fever or bacterial endocarditis are not available at present.
Urinary tract infections: including pyelonephritis and cystitis, caused by *E. coli, P. mirabilis, Klebsiella* sp, and coagulase-negative staphylococci.
Note: Cefaclor has been found to be effective in both acute and chronic urinary tract infections.
Skin and skin structures infections: caused by *Staphylococcus aureus* and *S. pyogenes* (group A β-hemolytic streptococcus).
Appropriate culture and susceptibility studies should be performed to determine the susceptibility of the causative organism to cefaclor.

Dosage and Administration
Soficlor is administered orally.
To reconstitute: Shake to loosen powder. Add water and shake vigorously to disperse powder. Add water to the 60 ml mark and shake well.

Adults: The usual adult dosage is 250 mg every 8 hours. For bronchitis and pneumonia, the dosage is 250 mg administered 3 times daily. A dosage of 250 mg administered 3 times daily for 10 days is recommended for sinusitis. For more severe infections (such as pneumonia) or those caused by susceptible organisms, doses may be doubled. Doses of 4g/day have been administered safely to normal subjects for 28 days, but the total daily dosage should not exceed this amount.
For the treatment of acute gonococcal urethritis in males and females, a single dose of 3g combined with probenecid, 1g, is given.

Children: The usual daily recommended dosage for children is 20mg/kg/day in divided doses every 8 hours. For bronchitis and pneumonia, the dosage is 20mg/kg/day in divided doses administered 3 times daily.
In more serious infections, otitis media, and infections caused by less susceptible organisms, 40mg/kg/day in divided doses are recommended, with a maximum dosage of 1g/day.

For Soficlor Oral Suspension 125mg/5ml

Child's weight (kg)	20mg/kg/day	40mg/kg/day
9	2.5 ml t.i.d.	5 ml t.i.d.
18	5 ml t.i.d.	10 ml t.i.d.

B.I.D. Treatment option: for the treatment of Otitis Media and pharyngitis, the total daily dosage may be divided and administered every 12 hours.
Soficlor may be administered in the presence of impaired renal function. Under such a condition, the dosage is usually unchanged.
In the treatment of β-hemolytic streptococcal infections, a therapeutic dosage of Soficlor should be administered for at least 10 days.

Contraindication
Soficlor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Adverse Effects
Adverse effects considered related to therapy with Cefaclor are listed below:
Hypersensitivity reactions have been reported in about 1.5% of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs' tests each occur in less than 1 in 200 patients.
Cases of serum-sickness-like reactions have been reported with the use of Cefaclor. These are characterized by findings of erythema multiforme, rashes, and other skin manifestations accompanied by arthritis / arthralgia, with of without fever, and differ from classic serum sickness in that there is infrequently associated lympadenopathy and proteinuria, no circulating immune complexes, and no evidence to date of sequelae of the reaction. While further investigation is ongoing, serum sickness-like reactions appear to be due to hypersensitivity and more often occur during or following a second (or subsequent) course of therapy with Cefaclor.
Such reactions have been reported more frequently in children than in adults with an overall occurrence ranging from 1 in 200 (0.5%) in one focused trial to 2 in 8,346 (0.024%) in overall clinical trials (with an incidence in children in clinical trials of 0.055%) to 1 in 38,000 (0.003%) in spontaneous event reports. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy. Antihistamines and glucocorticoids appear to enhance resolution of the signs and symptoms. No serious sequelae have been reported.

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More severe hypersensitivity reactions, including Stevens Johnson syndrome, toxic epidermal necrolysis, and anaphylaxis, have been reported rarely. Anaphylaxis may be more common in patients with a history of penicillin allergy.
Gastrointestinal symptoms occur in about 2.5% of patients and include diarrhea (1 in 70). Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment. Nausea and vomiting have been reported rarely. As with some penicillins and some other cephalosporins, transient hepatitis and cholestatic jaundice have been reported rarely.
Other effects considered related to therapy included eosinophilia (1 in 50 patients), genital pruritus or vaginitis (less than 1 in 100 patients), and, rarely, thrombocytopenia or reversible interstitial nephritis.
Causal Relationship Uncertain -
CNS - Rarely, reversible hyperactivity, nervousness, insomnia, confusion, hypertonia, dizziness, hallucinations, and somnolence have been reported.
Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.
Hepatic -Slight elevations of AST (SGOT), ALT (SGPT), or alkaline phosphatase values (1 in 40).
Hematopoietic -As has also been reported with other β-lactam antibiotics, transient lymphocytosis, leukopenia, and, rarely, hemolytic anemia and reversible neutropenia of possible clinical significance. There have been rare reports of increased prothrombin time with or without clinical bleeding in patients receiving cefaclor and coumadin concomitantly.
Renal -Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than I in 200).

Precautions / Warnings
Warnings:
In Penicillin-sensitive patients, cephalosporin antibiotics should be administered cautiously. There is clinical and laboratory evidence of partial cross-allergenicity of the penicillins and the cephalosporins and there is instances in which patients have had reactions, including anaphylaxis, to both drug classes.
Antibiotics, including cefaclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.
Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics (including macrolides, semisynthetic penicillins, and cephalosporins); therefore, it is important to consider its diagnosis in patients who develop diarrhea in association with the use of antibiotics. Such colitis may range in severity from mild to life threatening. 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 colitis. Mild cases of pseudomembranous colitis usually respond to drug discontinuance alone. In moderate to severe cases, management should include sigmoidoscopy, appropriate bacteriologic studies, and fluid, electrolyte, and protein supplementation. When the colitis does not improve after the drug has been discontinued, or when it is severe, oral vancomycin is the drug of choice for antibiotic-associated pseudomembranous colitis produced by *C. difficile*. Other causes of colitis should be ruled out.
Serious and occasionally fatal hypersensitive reactions (including anaphylactoid and severe cutaneous adverse reactions) have been reported in patients receiving therapy with beta-lactams. Before initiating therapy with Soficlor, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, carbapenems or other beta-lactam agents. If an allergic reaction occurs, Soficlor must be discontinued immediately and appropriate alternative therapy instituted.

Precautions
General - If an allergic reaction to cefaclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, eg, pressor amines, antihistamines, or corticosteroids.
Prolonged use of cefaclor may result in the overgrowth of non-susceptible 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 might be due to the drug.
Cefaclor should be administered with caution in the presence of markedly impaired renal function. Since the half-life of cefaclor in anuria is 2.3 to 2.8 hours, dosage adjustments for patients with moderate or severe renal impairment are usually not required. Clinical experience with cefaclor under such conditions is limited; therefore, careful clinical observation and laboratory studies should be made.
As a result of administration of cefaclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinitest^{R} tablets but not with Tes-Tape^{R} (Glucose Enzymatic Test Strip, USP).
Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.
Pregnancy - Pregnant Category B - Reproduction studies have been performed in mice and rats at doses up to 12 times the human dose and in ferrets given 3 times the maximum human dose and have revealed no evidence of impaired fertility or harm to the fetus due to Cefaclor. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.
Nursing Mothers -Small amounts of cefaclor have been detected in mother's milk following administration of single 500-mg doses. Trace amounts were detected at 1 hour. The effect on nursing infants is not known. Caution should be exercised when Cefaclor is administered to a nursing woman.
Pediatric Use - Safety and effectiveness of this product for use in infants less than I month of age have not been established.

Drug Interactions
There have been rare reports of increased anticoagulant effect when cefaclor and oral anticoagulants were administered concomitantly. As with other β-lactam antibiotics, the renal excretion of cefaclor is inhibited by probenecid.

Symptoms and Treatment of Overdosage
Signs and Symptoms -The toxic symptoms following an overdose of cefaclor may include nausea, vomiting, epigastric distress, and diarrhea. The severity of the epigastric distress and the diarrhea are dose related. If other symptoms are present, it is probable that they are secondary to an underlying disease state, an allergic reaction, or the effects of other intoxication.
Treatment - In managing overdosage, consider the possibility of multiple drug overdoses, interaction among drugs, and unusual drug kinetics in your patient.
Unless 5 times the normal dose of cefaclor has been ingested, gastrointestinal decontamination will not be necessary.
Protect the patient's airway and support ventilation and perfusion. Meticulously monitor and maintain, within acceptable limits, the patient's vital signs, blood gases, serum electrolytes, etc. Absorption of drugs from the gastrointestinal tract may be decreased by giving activated charcoal, which, in many cases, is more effective than emesis or lavage; consider charcoal instead of or in addition to gastric emptying. Repeated doses of charcoal over time may hasten elimination of some drugs that have been absorbed. Safeguard the patient's airway when employing gastric emptying or charcoal. Forced diuresis, peritoneal dialysis, haemodialysis, or charcoal haemoperfusion have not been established as beneficial for an overdose of cefaclor.

Description
Before reconstitution: White or slightly yellow colour, free flowing powder with strawberry odor.
After reconstitution: Yellowish-white to yellow colour, strawberry flavoured suspension.
Dry powder may be white or slightly yellow solely due to the nature of cefaclor.The quality and efficacy of the product are not affected.

Packing
60 ml packing in plastic bottles.

Shelf-life
The expiry date is indicated on the packaging.

Storage
Store at controlled room temperature, in a cool dry place below 25°C. After reconstitution, store in a refrigerator and discard unused portion after 7 days.

Friendly advice to parents:
- Shake the constituted suspension well before giving it to your child
- Complete the antibiotic course
- When you miss a dose, take the medicine as soon as you remember
- Take plenty of fluid such as water and milk
- Avoid hard/solid food when having sore throat
- Have plenty of rest

CONTROLLED MEDICINE
KEEP OUT OF REACH OF CHILDREN
JAUHI DARI KANAK-KANAK

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