

# SUMMARY OF PRODUCT CHARACTERISTICS

## 1 NAME OF THE MEDICINAL PRODUCT

Cefaclor 250mg/5ml Suspension

Keftid 250mg/5ml Suspension

## 2 QUALITATIVE AND QUANTITATIVE COMPOSITION

	Per 5ml
Cefaclor Monohydrate Ph. Eur.	250.00mg
Equivalent to Cefaclor	
Excipients: Sorbitol (E420)	600.00mg
For a full list of excipients, see section 6.1	

## 3 PHARMACEUTICAL FORM

Powder for oral suspension.

## 4 CLINICAL PARTICULARS

### 4.1 Therapeutic indications

Cefaclor is indicated for the treatment of infections caused by sensitive micro-organisms. These are infections of the respiratory tract which include pneumonia, bronchitis (including deteriorations in chronic bronchitis), tonsillitis, pharyngitis and the management of sinusitis. Cefaclor is also effective in otitis media. It is active in acute and chronic urinary tract infections including cystitis and pyelonephritis and also in infections of the skin and soft tissues. Cefaclor may also be used in the eradication of nasopharyngeal streptococci but resulting prevention of rheumatic fever and/or bacterial endocarditis has not been proven.

The following micro-organisms are susceptible *in vitro* to cefaclor:

- Alpha and beta-haemolytic streptococci

- Staphylococci (including coagulase-negative, coagulase-positive and penicillinase-producing strains)
- *Strep. pneumoniae*
- *Strep. pyogenes* (group A beta-haemolytic streptococci)
- *Branhamella catarrhalis*
- *E. coli*
- *Proteus mirabilis*
- *Klebsiella spp.*
- *Haemophilus influenzae* (including ampicillin-resistant strains)

Cefaclor is inactive against *Pseudomonas* and *Acinetobacter spp.*, most strains of *Enterobacter* and *Serratia spp.*, *Morganella morganii*, *Proteus vulgaris* and *Providencia rettgeri*. Methicillin-resistant staphylococci and most strains of enterococci including *Strep. faecalis* are resistant to cefaclor.

## 4.2 Posology and method of administration

The route of administration is oral.

Adult:

250mg every eight hours, may be doubled to 500mg every eight hours for more severe infections. Total daily dosage should not exceed 4g.

Children:

20mg/kg/day in divided doses every eight hours. This may be increased to 40mg/kg/day in divided doses in otitis media, sinusitis, more serious infections and those caused by less susceptible bacteria. In otitis media and pharyngitis the total daily dosage may be divided and given every twelve hours.

Bronchitis and pneumonia: 20mg/kg/day in divided doses three times daily.

Total daily dosage should not exceed 1g.

Doses may generally be administered three times daily as follows:

Age	Dose
1 month to 1 year	62.5mg
1-5 years	125.0mg
Over 5 years	250.0mg

In infections caused by beta-haemolytic streptococci, treatment should be continued for at least 10 days.

The safe use of Cefaclor in babies aged below one month has not been proven.

Elderly:

The normal adult dose is appropriate.

Patients Undergoing Haemodialysis:

Due to a 25-30% decrease in plasma half-life, a loading dose of 250mg -1g before dialysis is recommended with a maintenance dose between dialysis sessions of 250mg - 500mg every six to eight hours.

### **4.3 Contraindications**

Cefaclor should not be used in patients with known or suspected hypersensitivity to the active substance, cephalosporins or to any of the excipients listed in section 6.1.

Aspartame is a source of phenylalanine and should therefore not be used in patients suffering from the metabolic disorder phenylketonuria.

### **4.4 Special Warnings and Special Precautions for Use**

Warnings:

Prolonged use of cefaclor may result in the overgrowth of non-susceptible organisms. If superinfection occurs during therapy, appropriate measures should be taken.

Before instituting therapy with cefaclor, every effort should be made to determine whether the patient has had previous hypersensitivity reactions to cefaclor, cephalosporins, penicillins or other drugs. Cefaclor should be given cautiously to penicillin-sensitive patients, because cross-hypersensitivity, including anaphylaxis, among beta-lactam antibiotics has been clearly documented.

If an allergic reaction to cefaclor occurs, the drug should be discontinued and the patient treated with the appropriate agents.

Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics, including macrolides, semi-synthetic penicillins and cephalosporins. It is important, therefore, to consider its diagnosis in patients who develop diarrhoea in association with the use of antibiotics. Such colitis may range in severity from mild to life-threatening. Mild cases usually respond to drug discontinuance alone. In moderate to severe cases, appropriate measures should be taken.

Cephalosporin antibiotics may cause a positive result in Coombs' testing. When Coombs' testing is performed on neonates whose mothers received cephalosporins prior to labour, it should be noted that a positive result may be due to the drug. This should also be borne in mind during anti-globulin testing for haematological or cross-matching procedures. Cefaclor may also cause a false positive urine glucose result when Benedict's or Fehling's solutions or copper sulphate tablets are used in the testing.

This product contains sorbitol (E420). Patients with rare hereditary problems of fructose intolerance should not take this medicine.

Precautions:

Cefaclor should be administered with caution in the presence of markedly impaired renal function. Since the half-life of cefaclor in anuric patients is 2.3 to 2.8 hours (compared to 0.6-0.9 hours in normal subjects), dosage adjustments for patients with moderate or severe renal impairment are not usually required. Clinical experience with cefaclor under such conditions is limited; therefore, careful clinical observation and laboratory studies should be made.

Broad spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease.

#### **4.5 Interaction with other medicinal products and other forms of interaction**

There have been rare reports of increased prothrombin time, with or without clinical bleeding, in patients receiving cefaclor and warfarin concomitantly. It is recommended that in such patients regular monitoring of prothrombin time should be considered, with adjustment of dosage if necessary.

The renal excretion of cefaclor is inhibited by probenecid.

#### **4.6 Pregnancy and lactation**

Pregnancy

Animal studies have shown no evidence of impaired female fertility or teratogenicity. However, since there are no adequate or well controlled

studies in pregnant women, caution should be exercised when prescribing for the pregnant patient

#### Breastfeeding

Small amounts of cefaclor have been detected in breast milk following administration of single 500mg doses. Average levels of about 0.2 micrograms/ml or less were detected up to 5 hours later. Trace amounts were detected at one hour. As the effect on nursing infants is not known, caution should be exercised when cefaclor is administered to a nursing woman.

### 4.7 Effects on ability to drive and use machines

Cefaclor does not affect the ability to drive or operate machinery.

### 4.8. Undesirable Effects

Very common ( $\geq 1/10$ ); common ( $\geq 1/100$  to  $< 1/10$ ); uncommon ( $\geq 1/1,000$  to  $\leq 1/100$ ); rare ( $\geq 1/10,000$  to  $\leq 1/1,000$ ); very rare ( $\leq 1/10,000$ ), not known (cannot be estimated from the available data).

#### Infections and infestations

*Frequency not known*; Genital pruritus, vaginitis and vaginal moniliasis.

#### Blood and the lymphatic system disorders

*Rare*: Thrombocytopenia, transient lymphocytosis and leucopenia. Other haematological reactions include haemolytic anaemia, aplastic anaemia, agranulocytosis and reversible neutropenia.

*Frequency not known*: eosinophilia, positive Coomb's test

#### Immune system disorders

*Rare*: Allergic reactions, such as morbilliform eruptions, pruritus and urticaria have been observed. These reactions usually subside upon discontinuation of therapy

*Frequency not known*: Serum sickness-like reactions (erythema multiforme minor, rashes or other skin manifestations accompanied by arthritis/arthralgia with or without fever) have been reported.

Lymphadenopathy and proteinuria are infrequent; there are no circulating immune complexes and no evidence of sequelae. Occasionally, solitary symptoms may occur, but do not represent a serum-sickness-like reaction. Serum-sickness like reactions are apparently due to hypersensitivity and have usually occurred during or following a second (or subsequent) course of therapy with cefaclor. Such reactions have been reported more frequently in children than in adults. Signs and symptoms usually occur a few days after initiation of therapy and usually subside within a few days of cessation of therapy.

Antihistamines and corticosteroids appear to enhance resolution of the syndrome.

No serious sequelae have not been reported.

Rarely, hypersensitivity symptoms may last for months.

#### Psychiatric disorders

*Frequency not known:* nervousness, confusion, insomnia, hypertonia, reversible hyperactivity and hallucinations

#### Nervous system disorders

*Common:* Headache

*Frequency not known:* Dizziness, drowsiness, somnolence, agitation

Class effect of beta lactam antibiotics: beta lactam antibiotics may trigger seizures.

#### Gastrointestinal disorders

*Rare:* pseudomembraneous colitis

*Common:* Diarrhoea (not usually severe enough to discontinue treatment), Colitis, Nausea, Vomiting, Abdominal discomfort

#### Hepato-biliary disorders

*Rare:* Transient hepatitis and cholestatic jaundice

#### Investigations

*Frequency not known:* Slight elevations in AST, ALT or alkaline phosphatase values.

#### Skin and subcutaneous tissue disorders

*Rare:* Stevens-Johnson syndrome (erythema multiforme major), toxic epidermal necrolysis and anaphylaxis (which may be more common in patients allergic to penicillins). Anaphylactoid events may present as solitary symptoms, including angioedema, asthenia, oedema (including face and limbs), dyspnoea, paraesthesias, syncope or vasodilatation.

#### Renal and urinary disorders

*Rare:* reversible interstitial nephritis, slight elevations in blood urea or serum creatinine and abnormal urine test results.

It should be noted that there is a lack of modern frequency data for cefaclor adverse events.

#### **Reporting of suspected adverse reactions**

Reporting suspected adverse reactions after authorisation of the medicinal product is important. It allows continuous monitoring of the benefit/risk balance of the medicinal product.

Healthcare professionals are asked to report any suspected adverse reactions via the YellowCard Scheme Website: [www.mhra.gov.uk/yellowcard](http://www.mhra.gov.uk/yellowcard).

## **4.9 Overdose**

The symptoms of cefaclor overdose are non-specific and are generally nausea, vomiting, diarrhoea and epigastric distress.

## Treatment

Unless 5 times the normal total daily dose has been ingested, gastrointestinal decontamination will not be necessary.

General management may consist of supportive therapy.

## 5.1 Pharmacodynamic properties

Pharmacotherapeutic group: second generation cephalosporin. ATC code: J01DC04

Cefaclor is active against the following organisms *in vitro*:

Alpha- and beta-haemolytic streptococci

Staphylococci; including coagulase-positive, coagulase-negative and penicillinase-producing strains

*Streptococcus pneumoniae*

*Streptococcus pyogenes* (group A beta-haemolytic streptococci)

*Branhamella catarrhalis*

*Escherichia coli*

*Proteus mirabilis*

*Klebsiella* species

*Haemophilus influenzae*, including ampicillin-resistant strains.

Cefaclor has no activity against *Pseudomonas* species or *Acinetobacter* species.

Methicillin-resistant staphylococci and most strains of enterococci (eg, *Str. faecalis*) are resistant to cefaclor. Cefaclor is not active against most strains of *Enterobacter* spp, *Serratia* spp, *Morganella morganii*, *Proteus vulgaris* and *Providencia rettgeri*.

## 5.2 Pharmacokinetic properties

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, when it is taken with food, the peak concentration achieved is 50-75% of that observed when the drug is administered to fasting subjects and generally appears from  $\frac{3}{4}$  to one hour later. Following administration of 250mg, 500mg and 1G doses to fasting subjects, average peak serum levels of approximately 7, 13 and 23 mg/L respectively were obtained within 30 - 60 minutes. Approximately 60 - 85% of the drug is excreted unchanged in the urine within eight hours, the greater portion being excreted within the first two hours. During the eight hour period, peak urine concentrations following the 250mg, 500mg and 1G doses were approximately 600, 900 and 1,900 mg/L respectively. The serum half-life in normal subjects is 0.6 - 0.9 hours. 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 - 2.8 hours. Excretion pathways in patients with markedly impaired renal function have not been determined. Haemodialysis shortens the halflife by 25 - 30%.

## 5.3 Preclinical safety data

No further preclinical safety data.

## **6 PHARMACEUTICAL PARTICULARS**

### **6.1 List of excipients**

Sodium Benzoate

Silicon Dioxide (Colloidal)

Xanthan Gum

Sorbitol

Aspartame

Citric Acid (Anhydrous)

Taste Modifier

Strawberry Flavour

Banana Flavour

Pineapple Flavour

Raspberry Flavour

Allura Red (E129)

Sodium Content: 0.83mg per 5ml spoonful.

### **6.2 Incompatibilities**

Cefaclor has no major incompatibilities.

### **6.3 Shelf life**

Dry powder: 24 months from the date of manufacture.

Reconstituted suspension: 14 days from the date of reconstitution.

### **6.4 Special precautions for storage**



Dry powder: Store below 25°C in a dry place.

Reconstituted suspension: Store at 2-8°C.

## **6.5 Nature and contents of container**

High density polyethylene bottle with cap composed of polypropylene and polyethylene, containing a homogeneous, white to slightly pink coloured powder which is easily dispersed in water to form a pink suspension with an odour of fruit.

Pack size: 100ml.

## **6.6 Special precautions for disposal**

The suspension should be prepared by the addition of 82ml of water.

## **7. MARKETING AUTHORISATION HOLDER**

Strides Pharma UK Ltd

Unit 4 Metro Centre

Tolpits Lane

Watford

Hertfordshire

WD18 9SS

Trading as: Co-pharma

## **8 MARKETING AUTHORISATION NUMBER(S)**

PL 13606/0178

## **9 DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION**

06<sup>th</sup> December 1996

**10 DATE OF REVISION OF THE TEXT**

27/04/2017