

Sefrad[®]

Cephradine BP

**PRESENTATION**

Sefrad 250 Capsule: Coffee Color and light Brown color capsule with synovia logo and “Sefrad 250” printed. Each capsule contains Cephradine BP 250mg

Sefrad 500 Capsule: Black Color and Dark Brown color capsule with synovia logo and “Sefrad 500” printed. Each capsule contains Cephradine BP 500mg

Sefrad Suspension: Each Bottle contains yellow colored banana flavored powder for preparation of 100ml Suspension; when reconstituted each 5ml contains Cephradine BP 125mg.

Sefrad DS Syrup: Each Bottle contains yellow colored banana flavored powder for preparation of 100ml Syrup; when reconstituted each 5ml contains Cephradine BP 250mg.

Sefrad Pediatric Drops: Each Bottle contains yellow colored banana flavored powder for preparation of 15ml drops; when reconstituted each 1.25ml drop contains Cephradine BP 125mg.

Sefrad 250 Injection: Each vial contains powder of Cephradine with Arginine equivalent to Cephradine USP 250mg.

Sefrad 500 Injection: Each vial contains powder of Cephradine with Arginine equivalent to Cephradine USP 500mg.

Sefrad 1000 Injection: Each vial contains powder of Cephradine with Arginine equivalent to Cephradine USP 1g.

INDICATIONS

Sefrad is indicated for the treatment of infections caused by sensitive Gram-positive and Gram-negative bacteria. These include-

- Undesirable Upper respiratory tract infections such as sinusitis, pharyngitis, tonsillitis, laryngo-tracheo bronchitis and otitis media, and also
- Lower respiratory tract infections such as bronchitis (acute and chronic), lobar pneumonia and bronchopneumonia.
- Urinary tract infections including cystitis, urethritis and pyelonephritis.
- Skin and soft tissue infections such as- abscess, cellulitis, furunculosis and impetigo.

The following microorganisms are susceptible, in vitro to Cephradine

Gram-positive *Staphylococci* (both penicillin sensitive and resistant strains and penicillinase-producing species), *Streptococci*, *Streptococci pyogenes* (beta haemolytic), *Streptococcus pneumoniae*.

Gram-negative - *Escherichia coli*, *Klebsiella spp*, *Proteus mirabilis*, *Haemophilus influenza*, *Shigella spp*, *Salmonella spp* (including *Salmonella typhi*), *Neisseria spp*

Many strains of E.coli and Staphylococcus aureus that produce the enzyme penicillinase and thus are ampicillin-resistant, are susceptible to Cephradine which is unaffected by this enzyme.

DOSAGE & ADMINISTRATION

For oral administration

Adults:

Urinary tract infections: 500mg four times daily or 1g twice daily. Infections which are severe or chronic may necessitate the administration of higher doses. Where complications arise including prostatitis and epididymitis continued intensive treatment is required. Respiratory tract infections: 250 to 500mg four times daily or 500mg to 1g twice daily, dependent on the site and severity of the infection.

Skin and soft tissue infections: 250 to 500mg four times daily or 500mg to 1g twice daily, again dependent on the site and severity of the infection.

Children:

Total daily dose of 25 to 50mg/kg given in two or four equal divided doses.

Otitis media: Total daily dose of 75 to 100mg/kg given in divided doses 6 to 12 hourly.

Maximum daily dosage: 4g

Elderly:

The normal adult dose is appropriate. Patients with impaired renal or hepatic function should be monitored during treatment.

Renal Impairment

The following doses are recommended (based on 500mg every 6 hours) for patients not on haemodialysis:

Creatinine Clearance	Dosage
> 20ml / min	500mg every 6 hours
5-20ml / min	250mg every 6 hours
< 5ml / min	250mg every 50-70 hours.

Recommendations for patients on chronic, intermittent haemodialysis:

250mg at the start of haemodialysis

250mg 6 to 12 hours after the start

250mg 36 to 48 hours after the start

250mg at the start of the next haemodialysis session if more than 30 hours have elapsed since the last dose.

Additional Information for all patients

Regardless of patient age or weight, higher doses of up to 1g four times daily may be required for infections which are chronic or severe. Treatment should continue for at least 2 to 3 days after symptoms have resolved or bacteria have been eradicated.

To reduce the possibility of rheumatic fever or glomerulonephritis resulting from infections with haemolytic streptococci, treatment should be continued for at least 10 days.

Throughout treatment of chronic urinary tract infections and for several months thereafter, regular bacteriological and clinical monitoring is required.

Doses below those recommended above should not be prescribed. Paediatric dosages should not exceed those specified for adults, regardless of severity of infection. It may be necessary to continue Cephradine therapy for several weeks in persistent infections. Patients may be transferred from intramuscular/intravenous Cephradine therapy to oral treatment at the same dosage level.

CONTRAINDICATION

Sefrad should not be used in patients with known or suspected hypersensitivity to cephalosporins.

WARNINGS & PRECAUTIONS

- Prolonged use of an anti-infective may result in the

development of superinfection due to the emergence of resistant organisms.

- Cephradine should be administered with care to patients hypersensitive to penicillins because of the risk of cross-sensitivity between beta-lactam antibiotics.
- 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.
- Cephradine may cause a false positive urine glucose result when Benedict's or Fehling's solutions or tablets such as Clinitest® are used in the testing. This does not occur with enzyme based tests (e.g. Clinistix®, Diastix®).
- Dosage adjustment is necessary in renal impairment (see above).
- This product contains lactose. Patients with rare hereditary problems of galactose intolerance, the Lapp lactase deficiency or glucose-galactose malabsorption should not take this medicine.

INTERACTIONS

- Loop diuretics may increase nephrotoxicity of cephalosporins.
- Probenecid has been seen to raise serum concentrations of Cephradine, by reducing renal clearance of the cephalosporins.
- There is evidence of partial cross-allergenicity between the penicillins and the cephalosporins. Therefore, Sefrad should be used with caution in those patients with known hypersensitivity to penicillin.

PREGNANCY & LACTATION

Although animal studies have not demonstrated any teratogenicity, safety in pregnancy has not been established.

Cephradine is excreted in breast milk and should be used with caution in lactating mothers.

EFFECTS ON ABILITY TO DRIVE & USE MACHINES

Since the medicine may cause dizziness, patients should be cautioned about operating hazardous machinery, including automobiles.

UNDESIRABLE EFFECTS

Limited essentially to gastro-intestinal disturbances and on occasions to hypersensitivity phenomena. The latter are more likely to occur in individuals, who have previously demonstrated hypersensitivity and those with a history of allergy, asthma, hay fever or urticaria. Skin reactions have occasionally been reported. Rare- Glossitis, heartburn, dizziness, tightness in the chest, nausea, vomiting, diarrhoea, abdominal pain, vaginitis, candida overgrowth. Skin and hypersensitivity reactions include urticaria, skin rashes, joint pains, oedema.

Blood and lymphatic system disorders

Unknown: blood disorders (including thrombocytopenia, leucopenia, agranulocytosis, aplastic anaemia and haemolytic anaemia)

Immune system disorders

Unknown: Fever, serum sickness like reactions, anaphylaxis

Psychiatric disorders

Unknown: Confusion, sleep disturbances

Nervous system disorders

Unknown: hyperactivity, hypertonia, dizziness, nervousness

Rarely: Headache

Hepatobiliary disorders

Frequency unknown: Liver, enzyme disturbances, transient hepatitis, cholestatic jaundice

Renal and urinary disorders

Unknown: Reversible interstitial nephritis

Investigations

Unknown: Elevation of blood urea nitrogen, serum creatinine, alanine aminotransferase, aspartate aminotransferase, total bilirubin, alkaline phosphatase

OVERDOSE

The symptoms of Sefrad overdose are non-specific and are generally nausea, vomiting, diarrhoea and gastric upsets. Treatment is mainly supportive although gastric lavage will be necessary if a large amount has been ingested.

PHARMACEUTICAL PRECAUTION

- Sefrad Suspension should be freshly prepared. Reconstituted Suspension should be used within 7 days if kept at room temperature or within 14 days, if kept in a refrigerator. Sefrad Injection solutions should be used within 2 hours when kept at room temperature. When stored at 5°C, solutions retain potency for 12 hours. Reconstituted solutions may vary in colour from light to straw yellow; however this does not affect the potency.
- Do not use later than the date of expiry
- Keep all medicines out of the reach of children
- To be dispensed only on the prescription of a registered physician

PACKAGING QUANTITY

Sefrad 250 Capsule: Each box contains 5 x 4 x 250 mg in blister packs

Sefrad 500 Capsule: Each box contains 5 x 4 x 500 mg in blister packs

Sefrad Suspension: Bottle containing powder to produce 100ml of Suspension when reconstituted.

Sefrad DS Syrup: Bottle containing powder to produce 100ml of Syrup when reconstituted.

Sefrad Pediatric Drops: Bottle containing powder to produce 15ml of drops when reconstituted.

Sefrad 250 Injection: Box of ten combipacks. Each combipack contains: 1 vial of 250mg and 1 ampoule of 5ml of Water for Injection BP for dilution and a sterile disposable syringe.

Sefrad 500 Injection: Box of four combipacks. Each combipack contains: 1 vial of 500mg and 1 ampoule of 5ml of Water for Injection BP for dilution and a sterile disposable syringe.

Sefrad 1000 Injection: Box of one combipack. Each combipack contains: 1 vial of 1g and 1 ampoule of 5ml of Water for Injection BP for dilution and a sterile disposable syringe.

Manufactured by:

Synovia Pharma PLC., Station Road, Tongi, Gazipur.

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