

COMPOSITION:

Ceftriaxone Injection 250mg IM:

Vial: Ceftriaxone Sodium U.S.P. equivalent to Ceftriaxone250mg

Ampoule: 1% Lignocaine HCl U.S.P. 2 ml

Ceftriaxone Injection 250mg IV:

Vial: Ceftriaxone Sodium U.S.P. equivalent to Ceftriaxone250mg

Ampoule: Water for injection B.P. 5 ml

Ceftriaxone Injection 500mg IM:

Vial: Ceftriaxone Sodium U.S.P. equivalent to Ceftriaxone500mg

Ampoule: 1% Lignocaine HCl U.S.P. 2 ml

Ceftriaxone Injection 500mg IV:

Vial: Ceftriaxone Sodium U.S.P. equivalent to Ceftriaxone500mg

Ampoule: Water for injection B.P. 5 ml

Ceftriaxone Injection 1g IV:

Vial: Ceftriaxone Sodium U.S.P. equivalent to Ceftriaxone1g

Ampoule: Water for injection B.P. 10 ml

Ceftriaxone Injection 2g IV:

Vial: Ceftriaxone Sodium U.S.P. equivalent to Ceftriaxone2g

2 Ampoules: Water for injection B.P. 10 ml each

DESCRIPTION:

Ceftriaxone is a semi-synthetic, 3rd-generation cephalosporin antibiotic, with the high degree of stability to B-lactamases, broad-spectrum activity, and the effectiveness and convenience of long action.

MICROBIOLOGY:

Ceftriaxone binds to penicillin-binding proteins (PBP) located on walls of susceptible organisms and exerts strongly bactericidal action by inhibiting the synthesis of dipetideoglycan, a substance necessary for bacterial cell wall strength and rigidity, thus killing the bacterium. Ceftriaxone is active against a wide variety of gram-positive and gram-negative bacteria and has potent activity against all the Enterobacteriaceae. Ceftriaxone is also active against some organisms resistant to first generation, second generation cephalosporins, currently available aminoglycoside and penicillins, e.g., Haemophilus influenzae, Neisseria meningitidis, Neisseria gonorrhoeae, Escherichia coli, Klebsiella pneumoniae, Serratia marcescens

Mechanism of Action:

Ceftriaxone is a bactericidal agent that acts by inhibition of bacterial cell wall synthesis. Ceftriaxone has activity in the presence of some beta-lactamases, both penicillinases and cephalosporinases, of Gram-negative and Gram-positive bacteria.

Mechanism of Resistance:

Resistance to ceftriaxone is primarily through hydrolysis by beta-lactamase, alteration of penicillin-binding proteins (PBPs), and decreased permeability.

Interaction with Other Antimicrobials: In an in vitro study, antagonistic effects have been observed with the combination of chloramphenicol and ceftriaxone.

Ceftriaxone has been shown to be active against most isolates of the following bacteria, both in vitro and in clinical infections as described:

Gram-negative bacteria

Acinetobacter calcoaceticus, Enterobacter aerogenes, Enterobacter cloacae, Escherichia coli, Haemophilus influenzae, Haemophilus parainfluenzae, Klebsiella oxytoca, Klebsiella pneumoniae, Moraxella catarrhalis, Morganella morganii, Neisseria gonorrhoeae, Neisseria meningitidis, Proteus mirabilis, Proteus vulgaris, Pseudomonas aeruginosa, Serratia marcescens.

Gram-positive bacteria

Staphylococcus aureus, Staphylococcus epidermidis, Streptococcus pneumoniae, Streptococcus pyogenes, Viridans group streptococci.

Anaerobic bacteria

Bacteroides fragilis, Clostridium species, Peptostreptococcus species.

The following in vitro data are available, but their clinical significance is unknown. At least 90 per cent of the following microorganisms exhibit an in vitro minimum inhibitory concentration (MIC) less than or equal to the susceptible breakpoint for ceftriaxone. However, the efficacy of ceftriaxone in treating clinical infections due to these microorganisms has not been established in adequate and well-controlled clinical trials.

Gram-negative bacteria

Citrobacter diversus, Citrobacter freundii, Providencia species (including Providencia rettgeri), Salmonella species (including Salmonella typhi), Shigella species.

Gram-positive bacteria

Streptococcus agalactiae

Anaerobic bacteria

Porphyromonas (Bacteroides) melaninogenicus, Prevotella (Bacteroides) bivius

Note: Methicillin-resistant Staphylococcus spp. and most strains of Enterococci (e.g. Streptococcus faecalis) are resistant to cephalosporins, including ceftriaxone. Many strains producing B-lactamase (e.g. Bacteroides fragilis) are resistant to ceftriaxone. The susceptibility indicates that the antimicrobial is likely to inhibit growth of the pathogen if the antimicrobial compound reaches the concentration at the infection site necessary to inhibit growth of the pathogen. The resistant indicates that the antimicrobial is not likely to inhibit growth of the pathogen if the antimicrobial compound reaches the concentrations usually achievable at the infection site; other therapy should be selected.

PHARMACOKINETICS:

Ceftriaxone has nonlinear dose-dependent pharmacokinetics because of its protein binding; about 85 to 95% is bound to plasma proteins depending on the concentration of Ceftriaxone. Mean peak plasma concentrations of about 40 and 80 micrograms/mL have been reported 2 hours after intramuscular injection of 500 mg and 1 g of Ceftriaxone respectively. The plasma half-life of Ceftriaxone is not dependent on the dose and varies between 6 and 9 hours; it may be prolonged in neonates. The half-life does not change appreciably in patients with moderate renal impairment, but it may be prolonged in severe impairment especially when there is also hepatic impairment. Ceftriaxone is widely distributed in body tissues and fluids. It crosses both inflamed and non-inflamed meninges, generally achieving therapeutic concentrations in the CSF. It crosses the placenta and low concentrations have been detected in breast milk. High concentrations occur in bile.

About 40 to 65% of a dose of Ceftriaxone is excreted unchanged in the urine, principally by glomerular filtration; the remainder is excreted in the bile and is ultimately found in the faeces as unchanged drug and microbiologically inactive compounds.

INDICATIONS AND USAGE:

Before instituting treatment with ceftriaxone, appropriate specimens should be obtained for isolation of the causative organism and for determination of its susceptibility to the drug. Therapy may be instituted prior to obtaining results of susceptibility testing. To reduce the development of drug-resistant bacteria and maintain the effectiveness of ceftriaxone for injection, USP and other antibacterial drugs, ceftriaxone for injection, USP should be used only to treat or prevent infections that are proven or strongly suspected to be caused by susceptible bacteria. When culture and susceptibility information are available, they should be considered in selecting or modifying antibacterial therapy. In the absence of such data, local epidemiology and susceptibility patterns may

contribute to the empiric selection of therapy. Ceftriaxone for injection, USP is indicated for the treatment of the following infections when caused by susceptible organisms:

Lower Respiratory Tract Infections:

Lower respiratory tract infections caused by Streptococcus pneumoniae, Staphylococcus aureus, Haemophilus influenzae, Haemophilus parainfluenzae, Klebsiella pneumoniae, Escherichia coli, Enterobacter aerogenes, Proteus mirabilis or Serratia marcescens.

Acute Bacterial Otitis Media:

Acute Bacterial Otitis Media caused by Streptococcus pneumoniae, Haemophilus influenzae (including beta-lactamase producing strains) or Moraxella catarrhalis (including beta-lactamase producing strains).

Skin and Skin Structure Infections:

Skin and Skin Structure Infections caused by Staphylococcus aureus, Staphylococcus epidermidis, Streptococcus pyogenes, Viridans group streptococci, Escherichia coli, Enterobacter cloacae, Klebsiella oxytoca, Klebsiella pneumoniae, Proteus mirabilis, Morganella morganii, Pseudomonas aeruginosa, Serratia marcescens, Acinetobacter calcoaceticus, Bacteroides fragilis or Peptostreptococcus species.

Urinary Tract Infections (complicated and uncomplicated):

Urinary Tract Infections caused by Escherichia coli, Proteus mirabilis, Proteus vulgaris, Morganella morganii or Klebsiella pneumoniae.

Uncomplicated Gonorrhoea (cervical/urethral and rectal):

Uncomplicated Gonorrhoea caused by Neisseria gonorrhoeae, including both penicillinase and nonpenicillinase-producing strains, and pharyngeal gonorrhoea caused by nonpenicillinase-producing strains of Neisseria gonorrhoeae.

Pelvic Inflammatory Disease:

Pelvic Inflammatory Disease caused by Neisseria gonorrhoeae, Ceftriaxone sodium, like other cephalosporins, has no activity against Chlamydia trachomatis. Therefore, when cephalosporins are used in the treatment of patients with pelvic inflammatory disease and Chlamydia trachomatis is one of the suspected pathogens, appropriate antichlamydial coverage should be added.

Bacterial Septicemia:

Bacterial Septicemia caused by Staphylococcus aureus, Streptococcus pneumoniae, Escherichia coli, Haemophilus influenzae or Klebsiella pneumoniae.

Bone and Joint Infections:

Bone and Joint Infections caused by Staphylococcus aureus, Streptococcus pneumoniae, Escherichia coli, Proteus mirabilis, Klebsiella pneumoniae or Enterobacter species.

Intra-abdominal Infections:

Intra-abdominal Infections caused by Escherichia coli, Klebsiella pneumoniae, Bacteroides fragilis, Clostridium species (Note: most strains of Clostridium difficile are resistant) or Peptostreptococcus species.

Meningitis:

Meningitis caused by Haemophilus influenzae, Neisseria meningitidis or Streptococcus pneumoniae. Ceftriaxone has also been used successfully in a limited number of cases of meningitis and shunt infection caused by Staphylococcus epidermidis and Escherichia coli.

Surgical Prophylaxis:

The preoperative administration of a single 1 g dose of ceftriaxone may reduce the incidence of postoperative infections in patients undergoing surgical procedures classified as contaminated or potentially contaminated (e.g., vaginal abdominal hysterectomy or cholecystic calculous cholecystitis in high-risk patients, such as those over 70 years of age, with acute cholecystitis not requiring therapeutic antimicrobials, obstructive jaundice or common duct bile stones) and in surgical patients for whom infection at the operative site would present serious risk (e.g., during coronary artery bypass surgery). When administered prior to surgical procedures for which it is indicated, a single 1 g dose of ceftriaxone provides protection from most infections due to susceptible organisms throughout the course of the procedure.

DOSAGE AND ADMINISTRATION:

Ceftriaxone may be administered intravenously or intramuscularly. Ceftriaxone for injection should be administered intravenously by infusion over a period of 30 minutes.

Adults: The usual adult daily dose is 1 to 2 grams given once a day (or in equally divided doses twice a day) depending on the type and severity of infection. For infections caused by Staphylococcus aureus (MSSA), the recommended daily dose is 2 to 4 grams, in order to achieve >90% target attainment. The total daily dose should not exceed 4 grams. If Chlamydia trachomatis is a suspected pathogen, appropriate antichlamydial coverage should be added, because ceftriaxone sodium has no activity against this organism. For prophylactic use (surgical prophylaxis), a single dose of 1 gram administered intravenously 1/2 to 2 hours before surgery is recommended. Generally, ceftriaxone therapy should be continued for at least 2 days after the signs and symptoms of infection have disappeared. The usual duration of therapy is 4 to 14 days; in complicated infections, longer therapy may be required. When treating infections caused by Streptococcus pyogenes, therapy should be continued for at least 10 days. No dosage adjustment is necessary for patients with impairment of renal or hepatic function.

Pediatric Patients: For the treatment of skin and skin structure infections, the recommended total daily dose is 50 to 75 mg/kg given once a day (or in equally divided doses twice a day). The total daily dose should not exceed 2 grams. For the treatment of serious miscellaneous infections other than meningitis, the recommended total daily dose is 50 to 75 mg/kg, given in divided doses every 12 hours. The total daily dose should not exceed 2 grams. In the treatment of meningitis, it is recommended that the initial therapeutic dose be 100 mg/kg (not to exceed 4 grams). Thereafter, a total daily dose of 100 mg/kg/day (not to exceed 4 grams daily) is recommended. The daily dose may be administered once a day (or in equally divided doses every 12 hours). The usual duration of therapy is 7 to 14 days.

Neonates: Hyperbilirubinemic neonates, especially premature, should not be treated with ceftriaxone for injection. Ceftriaxone is contraindicated in neonates if they require (or are expected to require) treatment with calcium-containing IV solutions, including continuous calcium-containing infusions, such as parenteral nutrition because of the risk of precipitation of ceftriaxone-calcium.

COMBINATION THERAPY:

In severe, life-threatening infections, the combination of ceftriaxone sodium with aminoglycosides is indicated without awaiting the results of sensitivity tests. Because of physical incompatibility the two drugs must be administered separately, not mixed in one syringe. Infections with Pseudomonas aeruginosa may require concomitant treatment

CONTRAINDICATIONS:

- It is contraindicated in patients with known hypersensitivity to ceftriaxone or any other cephalosporin class of antibiotics. Patients with previous hypersensitivity reactions to penicillin and other beta lactam agents may be at greater risk of hypersensitivity to ceftriaxone.
- It is contraindicated in Neonates (<= 28 days); Hyperbilirubinemic neonates, especially premature, should not be treated with ceftriaxone for injection. It is shown that ceftriaxone can displace bilirubin from its binding to serum albumin, leading to a possible risk of bilirubin encephalopathy in these patients.
- It is contraindicated in neonates if they require (or are expected to require) treatment with calcium-containing IV solutions, including continuous calcium-containing infusions such as parenteral nutrition because of the risk of precipitation of ceftriaxone-calcium.

WARNINGS:

- Hypersensitivity:** Before therapy with ceftriaxone is instituted, careful inquiry should be made to determine whether the patient has had previous hypersensitivity reactions to cephalosporins, penicillins or other drugs. This product should be given cautiously to penicillin-sensitive patients. Antibiotics should be administered with caution to any patient who has demonstrated some form of allergy, particularly to drugs. Serious acute hypersensitivity reactions may require the use of subcutaneous epinephrine and other emergency measures. As with other cephalosporins, anaphylactic reactions with fatal outcome have been reported, even if a patient is not known to be allergic or previously exposed.
- Interaction with Calcium-Containing Products:** Do not use diluents containing calcium, such as Ringer's solution or Hartmann's solution, to reconstitute ceftriaxone vials or to further dilute a reconstituted vial for IV administration because a precipitate can form. Precipitation of ceftriaxone-calcium can also occur when ceftriaxone is mixed with calcium-containing solutions in the same IV administration line. Ceftriaxone must not be administered simultaneously with calcium-containing IV solutions, including continuous calcium-containing infusions such as parenteral nutrition via a Y-site.
- Clostridium difficile associated diarrhea (CDAD)** has been reported with use of nearly all antibacterial agents, including ceftriaxone, and may range in severity from mild diarrhea to fatal colitis. Treatment with antibacterial agents alters the normal flora of the colon leading to overgrowth of C. difficile. C. difficile produces toxins A and B which contribute to the development of CDAD. CDAD must be considered in all patients who present with diarrhea following antibiotic use. If CDAD is suspected or confirmed, ongoing antibiotic use not directed against C. difficile may need to be discontinued. Appropriate fluid and electrolyte management, protein supplementation, antibiotic treatment with C. difficile, and surgical evaluation should be instituted as clinically indicated.
- Hemolytic Anemia:** An immune mediated hemolytic anemia has been observed in patients receiving cephalosporin class antibacterials including ceftriaxone. Severe cases of hemolytic anemia, including fatalities, have been reported during treatment in both adults and children. If a patient develops anemia while on ceftriaxone, the diagnosis of a cephalosporin associated anemia should be considered and ceftriaxone stopped until the etiology is determined.
- Superinfections with non-susceptible microorganism** may occur as with other antibacterial agents.

PRECAUTIONS:

- Prescribing ceftriaxone for injection in the absence of a proven or strongly suspected bacterial infection or a prophylactic indication is unlikely to provide benefit to the patient and increases the risk of the development of drug-resistant bacteria.
- Ceftriaxone is excreted via both biliary and renal excretion. Therefore, patients with renal failure normally require no adjustment in dosage when usual doses of ceftriaxone are administered. Dosage adjustments should not be necessary in patients with hepatic dysfunction; however, in patients with both hepatic dysfunction and significant renal disease, caution should be exercised and the ceftriaxone dosage should not exceed 2 g daily.
- Alterations in prothrombin times have occurred rarely in patients treated with ceftriaxone. Patients with impaired vitamin K synthesis or low vitamin K stores (e.g., chronic hepatic disease and malnutrition) may require monitoring of prothrombin time during ceftriaxone treatment. Vitamin K administration (10 mg weekly) may be necessary if the prothrombin time is prolonged before or during therapy.
- Prolonged use of ceftriaxone may result in overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.
- Ceftriaxone for injection should be prescribed with caution in individuals with a history of gastrointestinal disease, especially colitis.
- There have been reports of sonographic abnormalities in the gallbladder of patients treated with ceftriaxone; some of these patients also had symptoms of gallbladder disease. The condition appears to be transient and reversible upon discontinuation of ceftriaxone for injection and institution of conservative management. Therefore, ceftriaxone should be discontinued in patients who develop signs and symptoms suggestive of gallbladder disease.
- Cases of pancreatitis, possibly secondary to biliary obstruction, have been reported rarely in patients treated with ceftriaxone. Most patients presented with risk factors for biliary stasis and biliary sludge (preceding major therapy, severe illness, total parenteral nutrition).
- Patients should be counseled that antibacterial drugs including ceftriaxone for injection should only be used to treat bacterial infections. They do not treat viral infections (e.g., the common cold). When ceftriaxone for injection is prescribed to treat a bacterial infection, patients should be told that although it is common to feel better early in the course of therapy, the medication should be taken exactly as directed.
- Diarrhea is a common problem caused by antibiotics which usually ends when the antibiotic is discontinued. Sometimes after starting treatment with antibiotics, patients can develop watery and bloody stools (with or without stomach cramps and fever) even as late as two or more months after having taken the last dose of the antibiotic.
- During prolonged treatment, complete blood count should be monitored at regular interval.

Pregnancy:

Pregnancy Category B:

There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproductive studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

Nursing Mothers:

Low concentrations of ceftriaxone are excreted in human milk. Caution should be exercised when ceftriaxone is administered to a nursing woman.

Pediatric Use:

Safety and effectiveness of ceftriaxone in neonates, infants and pediatric patients have been established for the dosages described. It has shown that ceftriaxone, like some other cephalosporins, can displace bilirubin from serum albumin. Ceftriaxone should not be administered to hyperbilirubinemic neonates, especially premature.

Geriatric Use:

The dosage adjustments are not necessary for geriatric patients with ceftriaxone dosages up to 2 grams per day.

ADVERSE REACTIONS:

Ceftriaxone is generally well tolerated. The following adverse reactions, which were considered to be related to ceftriaxone therapy or of uncertain etiology, were observed:

Local Reactions: pain, induration and tenderness, phlebitis, warmth, tightness or induration.

Hypersensitivity: Rash, pruritus, fever or chills.

Hematologic: Eosinophilia, thrombocytosis, leukopenia, anemia, hemolytic anemia, neutropenia, lymphopenia, thrombocytopenia and prolongation of the prothrombin time.

Gastrointestinal: Diarrhea, nausea, vomiting, and dysgeusia. The onset of pseudomembranous colitis symptoms may occur during or after antibacterial treatment.

Hepatic: Elevations of SGOT or SGPT, elevations of alkaline phosphatase and bilirubin.

Renal: Elevations of the BUN, creatinine and the presence of casts in the urine.

Central Nervous System: Headache, dizziness.

Genitourinary: Moniliasis or vaginitis.

Miscellaneous: Diaphoresis and flushing, abdominal pain, agranulocytosis, allergic pneumonitis, anaphylaxis, basophilias, biliary

lithiasis, bronchospasm, colitis, dyspepsia, epistaxis, flatulence, gallbladder sludge, glycosuria, hematuria, jaundice, leukocytosis, lymphocytosis, monocytosis, nephrolithiasis, palpitations, a decrease in the prothrombin time, renal precipitations, seizures, and serum sickness. The other reported adverse events are stomatitis, glossitis, oliguria, exanthema, allergic dermatitis, urticaria, edema, isolated cases of severe cutaneous adverse reactions (erythema multiforme, Stevens-Johnson syndrome or Lyle's syndrome/toxic epidermal necrolysis). Allergic reactions, drug fever, serum sickness-like reaction, renal dysfunction, toxic nephropathy, reversible hyperactivity, hypertonia, hepatic dysfunction including cholestasis, aplastic anemia, hemorrhage, superinfection, positive direct Coombs' test, false-positive test for urinary glucose and elevated LDH. Several cephalosporins have been implicated in triggering seizures, particularly in patients with renal impairment when the dosage was not reduced. If seizures associated with drug therapy occur, the drug should be discontinued. Anticonvulsant therapy can be given if clinically indicated.

OVERDOSAGE:

In the case of overdosage, drug concentration would not be reduced by hemodialysis or peritoneal dialysis. There is no specific antidote. Treatment of overdosage should be symptomatic.

METHOD FOR PREPARATION:

As a general rule, the solution should be used immediately after preparation.

Reconstituted solutions retain their physical and chemical stability for 6 hours at room temperature (or 24 hours in the refrigerator at 2-8°C). The solutions range in color from pale yellow to amber, depending on the concentration and length of storage. The coloration of the solution is of no significance for the efficacy or tolerance of the drug.

Intramuscular injection (for IM injection), Ceftriaxone 250mg or 500mg is dissolved in 2ml of lignocaine (lidocaine) hydrochloride 1% solution and injected well within the body of relatively large muscle. It is recommended that not more than 1gm be injected at one site.

The lignocaine (lidocaine) hydrochloride solution should not be administered intravenously.

Intravenous Injection (for IV injection), Ceftriaxone 250mg and 500mg is dissolved in 5ml and Ceftriaxone 1gm in 10ml sterile water for injection. The intravenous administration should be given over 2-4 minutes.

Intravenous infusion: the infusion should be given over at least 30 minutes. For IV infusion 2gm Ceftriaxone is dissolved in 40ml of one of the following calcium-free infusion solutions; sodium chloride 0.9%, sodium chloride 0.45% + dextrose 2.5%, dextrose 5%, dextrose 10%, dextran 6% in dextrose 5%, hydroxy ethyl starch 6-10%, water for injection.

Ceftriaxone solution should not be mixed with piggybacked into solutions containing other antimicrobial drugs or into diluent solutions other than those listed above, owing to possible incompatibility.

Compatibility and Stability:

Ceftriaxone has been shown to be compatible with (metronidazole hydrochloride). The concentration should not exceed 5 to 7.5 mg/mL metronidazole hydrochloride with ceftriaxone 10 mg/mL in an admixture. The admixture is stable for 24 hours at room temperature only in 0.9% sodium chloride injection or 5% dextrose in water. Metronidazole at concentrations greater than 8 mg/mL will precipitate. Do not refrigerate the admixture as precipitation will occur. Vancomycin, ampicillin, aminoglycosides, and fluconazole are physically incompatible with ceftriaxone in admixtures. When any of these drugs are to be administered concomitantly with ceftriaxone by intermittent intravenous infusion, it is recommended that they be given sequentially, with thorough flushing of the intravenous lines (with one of the compatible fluids) between the administrations.

Do not use diluents containing calcium, such as Ringer's solution or Hartmann's solution, to reconstitute ceftriaxone for injection or to further dilute a reconstituted vial for IV administration. Particulate formation can result.

PRESENTATION:

Ceftriaxone is supplied in the following dosage forms, strengths and pack sizes:

Ceftriaxone Injection 250mg IM:

1 vial of 250mg ceftriaxone and 1 ampoule of 2ml lignocaine hydrochloride 1%.

Ceftriaxone Injection 500mg IM:

1 vial of 500mg ceftriaxone and 1 ampoule of 2ml lignocaine hydrochloride 1%.

Ceftriaxone Injection 250mg IV:

1 vial of 250mg ceftriaxone and 1 ampoule of 5ml water for injection.

Ceftriaxone Injection 500mg IV:

1 vial of 500mg ceftriaxone and 1 ampoule of 5ml water for injection.

Ceftriaxone Injection 1g IV:

1 vial of 1g ceftriaxone and 1 ampoule of 10ml water for injection.

Ceftriaxone Injection 2g IV:

1 vial of 2g ceftriaxone and 2 ampoules of 10ml water for injection.

DOSAGE & INSTRUCTIONS:

To be used on the prescription of a registered medical practitioner only. Keep out of the reach of children.

Do not store above 30°C.

Protect from sunlight, heat and moisture.

Detailed prescribing information is available at www.curexahealth.com

Manufactured by:



Curexa Health Private Limited
Plot No. 517, Sundar Industrial Estate, Lahore - Pakistan

Amoule Manufactured by:

SURGE LABORATORIES
10 K.M. Faisalabad Road,
Bhikki, District
Sheikhupura-Pakistan

A wholly owned subsidiary of

H I G H N O O N

17.5 K.M. Multan Road, Lahore - Pakistan

سیفٹرو
(سیفٹروائی ایگزون سوڈیم)
آئی ایم / آئی وی انجکشنز

ٹوراک و ہڈیا کی حالت:
سرف سٹروڈا کے ساتھ استعمال کی جاسکتی ہے۔
بچوں کی نگہداشت اور نگرانی۔
دو ماہ کی عمر سے 30 سے زیادہ روزانہ دوز کے ساتھ۔
دو ماہ کی عمر سے ٹوراک۔