Cefuroxim is approximately 50% bound to serum protein.

**Microbiology:**
Results for *Microbiology:* to cefuroxime uses the 30 m g cefuroxime disk. Interpretation involves the correlation of the diameters obtained in the disk test with the cefuroxime sodium. Solutions of Cefuroxime for Injection, USP range in color from light yellow to amber, depending on the concentration and diluent used. The pH of freshly constituted solutions usually ranges from 6 to 8.5.

**Pharmacopeial Requirements:** Following 15 hours of 720 ppm and 1.5 g, serum concentrations were approximately 50 and 100 mg/mL, respectively, at 15 minutes. Therapeutic serum concentration approximately 6 mg/mL or more sustained for 3 to 4 hours and then decreases. These were obtained using plasma samples collected at 15 minutes, 1 hour, 2 hours, and 3 hours; 15 minutes, 1 hour, 2 hours, 3 hours and 8 hours; and 15 minutes, 1 hour, 2 hours, and 3 hours. Approximately 90% of a dose is excreted by the kidney over an 8-hour period, resulting in high urine concentrations.

**Indications and Usage:**
Cefuroxime for Injection, USP is indicated for the treatment of patients with infections caused by susceptible organisms in the following diseases:

**1. Lower Respiratory Tract Infections:** Includes infections caused by *Staphylococcus aureus* (penicillinase- and non-penicillinase-producing strains), *Enterobacter cloacae* and *Enterobacter aerogenes* (penicillinase-producing strains), *Klebsiella pneumoniae* (penicillinase-producing strains), *Pseudomonas aeruginosa* (penicillinase-producing strains), and *Serratia marcescens* (penicillinase-producing strains).

**2. Urinary Tract Infections:** caused by *Escherichia coli* and *Klebsiella pneumoniae*.

**3. Skin and Skin Structure Infections:** caused by *Staphylococcus aureus* (penicillinase- and non-penicillinase-producing strains), *Streptococcus pyogenes* (penicillinase-producing and non-penicillinase-producing strains), *Streptococcus viridans* (penicillinase-producing strains), *Streptococcus pneumoniae* (penicillinase-producing strains), *Streptococcus anginosus* (penicillinase-producing strains), *Enterococcus faecalis* (penicillinase-producing strains), *Bacteroides fragilis* (penicillinase-producing strains), *Proteus mirabilis* (penicillinase-producing strains), and *Proteus vulgaris* (penicillinase-producing strains).

**4. Prophylaxis:** caused by *Staphylococcus aureus* (penicillinase- and non-penicillinase-producing strains), *Streptococcus pyogenes* (penicillinase-producing strains), *Streptococcus viridans* (penicillinase-producing strains), *Streptococcus pneumoniae* (penicillinase-producing strains), *Streptococcus anginosus* (penicillinase-producing strains), *Enterococcus faecalis* (penicillinase-producing strains), *Bacteroides fragilis* (penicillinase-producing strains), *Proteus mirabilis* (penicillinase-producing strains), and *Proteus vulgaris* (penicillinase-producing strains).

**5. Bone and Joint Infections:** caused by *Staphylococcus aureus* (penicillinase-producing strains) and *Streptococcus pyogenes* (penicillinase-producing strains).

**Clinical microbiological studies in in vitro and in vivo infections frequently reveal the growth of susceptible strains of both aerobic and anaerobic organisms. Cefuroxime for Injection, USP has been used successfully after the surgical incision in several operations and has been included in certain surgical contamination or unexpected primary or secondary surgery or in patients with other serious infections in which the causative organisms have not been identified, Cefuroxime for Injection may be used concomitantly or as a substitute for an antibiotic.
Cefuroxim e and othercephalosporin-class antibiotics: when concomitant use is necessary, other cephalosporins with a different mechanism of action should be selected to minimize the risk of superinfection.

**Dosage and Administration**

**Intravenous Administration:**

Cefuroxime is used by intermittent injection, infusion, or continuous infusion. Whatever method is utilized, the solution should be prepared immediately before use and should be administered as a single bolus injection or infused at a constant rate for a period of 5 to 10 minutes.

**Intramuscular Administration:**

Cefuroxime should be given by deep intramuscular injection only.

**Intraperitoneal Administration:**

The injection site should be located in the left paracolic gutter, avoiding the mesentery and the posterior parietal peritoneum. The needle should be inserted at a 90-degree angle, and the solution should be injected slowly.

**Penile Erosion:**

Cefuroxime is available as a dry, white to off-white powder in vials. The vials contain 3052, 45, 625, 323, 352, 45, and 1500 mg of cefuroxime sodium as the sodium salt. Each vial contains 750 mg of cefuroxime sodium equivalent to 750 mg cefuroxime.

**Syrup Formulation:**

Cefuroxime syrup is available in 150 mg/mL strength in 5 mL and 10 mL bottles. The syrup has a sweet mucilage taste and is supplied in bottles that are heat-sealed and overwrapped with aluminum foil. The syrup is dispensed in disposable nozzles for the oral route of administration.

**For Injection, USP:**

Cefuroxime for Injection, USP is a sterile, dry, white to off-white powder in vials that contains 750 mg or 1.5 g of cefuroxime sodium per vial. The vials are designed for use only with aqueous diluents provided in the package insert and should not be used with other diluents. The vials are not autoclavable and should be used within 24 hours of reconstitution.

**Diluent Compatibility:**

Sodium chloride injection, USP; 5% dextrose injection, USP; and sodium lactate injection, USP are compatible with cefuroxime sodium injection, USP. The compatibility of cefuroxime sodium injection, USP with other diluents is not established. STERI-PHEN and other phenolic-based preservatives should not be used for dilution or administration of cefuroxime sodium injection, USP.

**Drug Interactions:**

Cefuroxime is not associated with any clinically significant drug interactions with concomitantly administered drugs. It is recommended that cefuroxime be administered with other drugs that are compatible with its administration.

**Adverse Reactions:**

Cefuroxime is generally well tolerated. The most common adverse effects have been local reactions following IV injection, including phlebitis and phlebitis-like reactions. In clinical trials, the most common adverse reactions reported for cefuroxime were nausea, vomiting, abdominal pain, diarrhea, and rash. Other adverse reactions reported included headache, dizziness, pruritus, and urticaria. The most common laboratory abnormalities reported were increases in serum transaminases, bilirubin, and creatinine levels.

**Contraindications:**

Cefuroxime is contraindicated in patients with a history of previous cefuroxime hypersensitivity or other cephalosporin-class antibiotics, including cephalothin, ceftotaxime, ceftazidime, ceftriaxone, and cefoperazone. Cefuroxime is also contraindicated in patients with a history of a serious anaphylactic reaction to penicillin.

**Warnings and Precautions:**

Cefuroxime is associated with local reactions, including phlebitis, phlebitis-like reactions, and inflammation of the injection site. These reactions have been reported following IV injection, infusion, or continuous infusion. In cases of acute allergic reaction, the initial symptoms may be delayed. In cases of anaphylaxis, the initial symptoms may be delayed.

**Laboratory Test Interactions:**

Cefuroxime may interfere with glucose oxidase methods (eg, Clinitest tablets) but not with enzymatic methods for glycosuria. A false-negative result may occur with the Clinitest tablets but not with enzymatic methods for glycosuria. As a false-negative result may occur with some glucose oxidase methods (eg, Clinitest tablets), the presence of cefuroxime should be taken into account when interpreting glucose results.

**Postmarketing Experience:**

Cefuroxime for Injection, USP has been associated with a variety of adverse drug reactions. These reactions have included allergic reactions, gastrointestinal reactions, and hepatic reactions. The most common laboratory abnormalities reported were increases in serum transaminases, bilirubin, and creatinine levels.

**Dosage Information:**

Cefuroxime for Injection, USP is available in 750 mg or 1500 mg per vial. The vials are designed for use only with aqueous diluents provided in the package insert and should not be used with other diluents. The vials are not autoclavable and should be used within 24 hours of reconstitution.

**Stability:**

Cefuroxime for Injection, USP is stable in solution for 24 hours when stored at room temperature and protected from light.

**Storage and Handling:**

Cefuroxime for Injection, USP should be stored at room temperature and protected from light. The solution should be used within 24 hours of reconstitution. The solution should be protected from freezing.

**References:**


Reference: USP XXI (1993)


