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 one week after treatment has stopped. These side effects can usually be managed with rehydration,电解质补充,  and other fluid supplements without further medical treatment.

Antimicrobial prophylaxis is indicated for clean-contaminated or potentially contaminated procedures. Effective prophylactic use of cefuroxime may reduce the incidence of surgical site infections in clean-contaminated surgical procedures (e.g., gynecologic, breast, and urologic procedures) that are classified as clean-contaminated or potentially contaminated procedures. Effective prophylactic use of cefuroxime may prevent the growth of susceptible disease-causing bacteria and reduce the incidence of surgical site infections in clean-contaminated surgical procedures. Effective prophylactic use of cefuroxime may reduce the incidence of surgical site infections in clean-contaminated surgical procedures.

Prophylactic administration is usually not required after the surgical procedure ends and should be stopped within 24 hours. In the presence of blood, pus, or other signs of infection, appropriate therapy should be initiated. Prophylactic administration of cefuroxime should not be used for gastrointestinal infections, infections below the diaphragm (e.g., intra-abdominal, gynecological, or rectal infections), or infections above the diaphragm (e.g., thoracic, otogenic, or sinus infections).

Cefuroxime is highly stable in the presence of acidic conditions. Cefuroxime may be administered without regard to food. The molecular formula is C_{16}H_{18}O_{8}N_{4}S_{2}, representing a molecular weight of 446.4.

CONTRAINDICATIONS

Antibiotics are capable of altering the normal flora of the colon and may range in severity from mild diarrhea to fatal colitis. Treatment with antibacterial agents alters the normal flora of the colon and may permit overgrowth of clostridia, possibly resulting in pseudo-Membranous colitis. If this occurs, discontinue the cefuroxime and institute appropriate therapy.

Otitis media (acute bacterial or chronic recurrent), sinusitis, and acute exacerbation of chronic bronchitis are usually responsive to the action of broad-spectrum antibiotics. For the treatment of these infections, however, agents such as cefuroxime are not expected to be more effective than more restricted-spectrum agents. Furthermore, the use of such agents may increase the selection of resistant bacteria.

In cases of documented or suspected meningitis, the patient should be treated with a bactericidal agent such as cefuroxime or another appropriate drug. The duration of therapy usually should be at least 10 days. Patients with meningococcal meningitis and those with pneumococcal meningitis should be treated with a bactericidal agent such as cefuroxime for 10 to 14 days.

Persistence of positive CSF (cerebrospinal fluid) cultures at 18 to 36 hours has also been noted with cefuroxime injection, as well as with other antibiotic therapies; however, the clinical relevance of this is unknown.

As with other therapeutic regimens used in the treatment of meningitis, mild-to-moderate hearing loss has been reported in a few patients receiving cefuroxime. This effect usually occurs during or immediately after therapy and resolves completely upon discontinuation of therapy.

The total daily dose of cefuroxime should be reduced in patients with transient or persistent renal insufficiency (see DOSAGE AND ADMINISTRATION OF CEFUROXIME). Dosage in renal insufficiency: When the creatinine clearance is less than 10 mL/min, the daily maintenance dose should be reduced to 500 mg every 12 hours.

The cytoplasmic and extracellular forms of C. difficile produce toxins A and B which contribute to the development of CDAD. Hypertoxin producing strains of C. difficile are the most common cause of CDAD which is now recognized as a leading cause of nosocomial diarrhea. C. difficile is often isolated from the fecal flora of healthy patients as well as healthy and hospitalized patients. The epidemiology of CDAD has been altered by the use of antimicrobial agents, including cefuroxime. C. difficile is a part of the normal colonic flora of approximately 1% to 5% of healthy individuals who may or may not be colonized with toxigenic strains of the organism.

Following the discontinuation of the last 7 to 10 days of cefuroxime therapy, C. difficile is not easily detected in the stool by the usual laboratory tests for C. difficile enterotoxins, toxins A and B, and heat-labile and heat-stable enterotoxins. The sensitivity of laboratory tests for C. difficile enterotoxins, toxins A and B, and heat-labile and heat-stable enterotoxins are not known.

C. difficile is transmitted by direct contact or by contaminated fomites. In patients with overt CDAD, elimination of the organism does not necessarily correlate with clinical cure. The diagnosis of CDAD is based on the clinical presentation, laboratory tests, and subsequent clinical response after therapy.

C. difficile and other Clostridium species are susceptible in vitro to a variety of antibiotics, including penicillin, clindamycin, erythromycin, and tetracycline. In addition, the organisms are generally resistant to aminoglycoside antibiotics.

C. difficile is resistant to vancomycin, chloramphenicol, trimethoprim-sulfamethoxazole, and cephalosporin antibiotics. For therapy of C. difficile enterocolitis, vancomycin or metronidazole are generally considered the drugs of choice.

C. difficile is an anaerobic organism resistant to the action of most antimicrobial agents, including penicillin, clindamycin, erythromycin, tetracycline, and aminoglycoside antibiotics. C. difficile is generally susceptible to vancomycin and metronidazole.

C. difficile is susceptible to many agents effective against enterococci. The in vitro activity of cefuroxime against enterococci is similar to that of penicillin, ampicillin, and amoxicillin.

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**Dosage and Administration**

**DOSAGE**

- **Intravenous Administration:** After constitution, Cefuroxime for Injection may be given intravenously or by deep IM injection into a large muscle mass. When the 750 mg, 1.5 g vials are constituted as directed with Sterile Water for Injection the solutions of Cefuroxime for Injection have been found to be sufficiently stable for 48 hours at room temperature and for 96 hours under refrigeration (5ºC).

- **Intramuscular Administration:** For Intramuscular Use: Each 750 mg vial of cefuroxime should be constituted with 3.0 mL of Sterile Water for Injection. Shake well and inject slowly into the most accessible large muscle mass. After the periods mentioned above any unused suspensions should be discarded.

**Dosage Adjustments**

- **Pediatric Dosage:***
  - For administration of cefuroxime to pediatric patients, dosage in children is generally based on body weight. For children weighing less than 10 kg, 750 mg vials should be constituted with 100 mL of Sterile Water for Injection, 5% Dextrose Injection, 10% Dextrose Injection, 5% Dextrose and 0.9% Sodium Chloride Injection, 250 mL of 0.9% Sodium Chloride Injection; or 5% Dextrose and 0.9% Sodium Chloride Injection; or 5% Dextrose Injection. Each 750 mg vial should be constituted with 16.0 mL of Sterile Water for Injection, and the solution should be completely withdrawn from the vial. Each 1.5 gram vial should be constituted with 22.0 mL of Sterile Water for Injection, and the solution should be completely withdrawn from the vial.

- **Dosage in Renal Impairment:**
  - **Non-Cephalosporin Antibiotics:**
    - When only serum creatinine is available, the following formula (based on sex, weight, and age of the patient) may be used to convert mg/dL to ml/min:
      - Male: Creatinine clearance (mL/min) = 140 × (weight in kg) / (72 × serum creatinine in mg/dL)
      - Female: Creatinine clearance (mL/min) = 1.23 × (weight in kg) / (72 × serum creatinine in mg/dL)
  - **Cefuroxime Dosage:**
    - Doses larger than those indicated above should not be used. In staphylococcal and other infections involving a collection of pus, 100 mg/kg per day may be required for several months after therapy has been completed; persistent infections may require treatment for several weeks; septic arthritis and osteomyelitis require treatment for several weeks after the disappearance of signs and symptoms; endocarditis requires at least 4 to 6 weeks of therapy after clinical cure is obtained; peritonitis requires at least 3 weeks of therapy; spontaneous bacterial peritonitis requires at least 7 days of therapy; bone and joint infections require at least 10 days of therapy; patients with meningitis caused by gram-positive organisms should be treated for at least 10 days.