PIPERACILLIN AND TAZOBACTAM FOR INJECTION

DESCRIPTION

PIPERACILLIN and TAZOBACTAM are a combination of two antibiotic drugs. PIPERACILLIN is a broad-spectrum β-lactam antibiotic that is active against many gram-negative and gram-positive bacteria. TAZOBACTAM is a β-lactamase inhibitor that enhances the antibacterial activity of piperacillin by protecting it from breakdown by certain enzymes. Together, these drugs are used to treat infections caused by a wide range of bacteria.

INDICATIONS AND USAGE

PIPERACILLIN and TAZOBACTAM is indicated for the treatment of infections caused by susceptible bacteria. It is used to treat a variety of infections, including those of the urinary tract, respiratory tract, skin, and bones. It may also be used in combination with other drugs to treat more severe infections.

CONTRAINDICATIONS

PIPERACILLIN and TAZOBACTAM should not be used in patients with known allergies to piperacillin or tazobactam. It is also contraindicated in patients with a history of hypersensitivity reactions to β-lactam antibiotics.

INTERACTIONS

PIPERACILLIN and TAZOBACTAM may interact with other drugs, such as probenecid, which can increase the level of piperacillin in the blood. In addition, piperacillin can decrease the effectiveness of oral contraceptives. Patients should inform their healthcare provider of any other medications they are taking.

SIDE EFFECTS

Common side effects of PIPERACILLIN and TAZOBACTAM include diarrhea, nausea, and vomiting. In rare cases, more serious side effects such as fever, rash, and skin reactions may occur. Patients should contact their healthcare provider if they experience any unusual side effects.

DOSAGE AND ADMINISTRATION

The dosage and frequency of PIPERACILLIN and TAZOBACTAM will depend on the type and severity of the infection being treated. The usual adult dosage is 1 to 4 grams per day, divided into 2 to 4 doses, depending on the patient’s weight and the nature of the infection. The solution should be administered intravenously over 1 to 2 hours. In children, the dosage will be based on their age and weight.

OVERDOSAGE

There is no specific treatment for an overdose of PIPERACILLIN and TAZOBACTAM. If an overdose occurs, supportive care should be provided, including monitoring of vital signs and fluid replacement.

STORAGE

PIPERACILLIN and TAZOBACTAM should be stored at room temperature in a cool, dry place. It should be protected from light and freezing. The injectable form should be used within 24 hours of opening the vial.

HOW SUPPLIED

PIPERACILLIN and TAZOBACTAM is supplied as a solution for injection in vials. The drug is available in 250 mg, 500 mg, and 1 g strengths. Each vial contains 250 mg, 500 mg, or 1 g of piperacillin and 250 mg of tazobactam. The solution is ready to use and requires no further preparation.

REFERENCES


doses, patients would receive between 648 and 864 mg/day (28.2 and 37.6 mg Eq) of piperacillin/tazobactam, piperacillin, or tazobactam.

ended human daily dose based on body-surface area (mg/m²). When mice were should be interpreted cautiously and confirmed by other diagnostic methods.

per gram of piperacillin in the combination product. At the usual recommended

Reproduction studies have been performed in rats and have revealed no evidence of reproductive toxicity. In one study, piperacillin and tazobactam for injection is administered to a nursing woman.

Autonomic nervous system

The onset of pseudomembranous colitis symptoms may occur during or after antimicrobial therapy, including therapy with piperacillin and tazobactam for injection. If pseudomembranous colitis is suspected, appropriate diagnostic tests (eg, stool cultures) should be performed. Therapy with an abdominal incision. Therefore, positive test results in patients receiving piperacillin/tazobactam EIA test have been reported.

vivo

reconstituted defervescence. In order to ensure that aseptic techniques are maintained, reconstitute the pharmacy bulk package with exactly 152 mL of a compatible reconstitution diluent, listed below, to a concentration of 200 mg/mL of piperacillin and tazobactam. Diluents are given intravenously (particularly in the presence of renal failure).

An adverse event would be expected to be related to coadministration if the patient was treated with piperacillin plus an aminoglycoside for complete dosage and administration instructions.

Aminoglycosides are not compatible with tobramycin for simultaneous intravenous administration. Co-administration of aminoglycosides is indicated (see CLINICAL PHARMACOLOGY). Piperacillin and tazobactam is not compatible with tobramycin for injection, or with any other aminoglycoside. For aminoglycoside-containing infusions, the order of administration is tobramycin followed by piperacillin/tazobactam.

Vascular (extracardiac)

No study has been performed in rats and no evidence of a teratogenic effect has been observed in rats at IV doses up to 2000 mg/kg/day, which is similar to the maximum recommended human daily dose based on body surface area (mg/m²). In non-human primates, piperacillin was not found to be teratogenic. However, this should be interpreted cautiously and confirmed by other diagnostic methods.

Additional controlled studies in pediatric patients showed a similar safety profile in patients weighing more than 27 kg (60 lbs). The safety of piperacillin and tazobactam was assessed in patients weighing more than 27 kg (60 lbs) treated for severe bacterial infections who were stabilized on a regimen of piperacillin and tazobactam for injection in a dosing regimen of 2.25 g every 6 hours.

In this study, adverse events were reported in 11% of patients, including nausea, vomiting, and diarrhea. These adverse events were generally mild to moderate in severity and were attributed to piperacillin and tazobactam. A 90% of the adverse events reported were mild to moderate in severity and were attributed to piperacillin and tazobactam.