Ceftazidime is a semisynthetic, broad-spectrum, beta-lactam antibiotic for parenteral administration. The pharmacokinetic profile is supportive of its use in a variety of critically ill patients, including those with advanced liver disease or renal impairment. Studies have shown that the pharmacokinetics of ceftazidime are similar in patients with severe hepatic impairment as in normal subjects. Studies have also shown that ceftazidime, unlike other cephalosporins, is not subject to the same degree of liver metabolism and is not subject to the same degree of elimination via the biliary system. This property results in a substantial prolongation of its plasma half-life and therefore extends the dosing interval to 8 hours. Ceftazidime is not removed significantly from the serum in patients with renal failure, and the elimination half-life is not altered in the presence of impaired renal function. Since the normal recommended dosage is not adjusted for patients with impaired renal function, the serum concentration is not affected by the presence of renal failure. Ceftazidime is widely distributed throughout the body, with concentrations in tissue fluids being lower than those achieved in plasma. The drug is secreted into breast milk and into the peritoneal, synovial, and pleural fluids. The drug does not cross the placental barrier and accumulation in the fetus cannot be ruled out. The drug is not removed significantly from the cerebrospinal fluid in normal patients. As with the cephalosporins, ceftazidime is not removed from the cerebrospinal fluid during the course of infection. There is no evidence that the drug is removed from the cerebrospinal fluid during the course of infection. There is no evidence that the drug is removed from the cerebrospinal fluid during the course of infection. There is no evidence that the drug is removed from the cerebrospinal fluid during the course of infection. There is no evidence that the drug is removed from the cerebrospinal fluid during the course of infection. There is no evidence that the drug is removed from the cerebrospinal fluid during the course of infection. There is no evidence that the drug is removed from the cerebrospinal fluid during the course of infection. There is no evidence that the drug is removed from the cerebrospinal fluid during the course of infection. There is no evidence that the drug is removed from the cerebrospinal fluid during the course of infection. There is no evidence that the drug is removed from the cerebrospinal fluid during the course of infection. There is no evidence that the drug is removed from the cerebrospinal fluid during the course of infection. There is no evidence that the drug is removed from the cerebrospinal fluid during the course of infection. There is no evidence that the drug is removed from the cerebrospinal fluid during the course of infection. There is no evidence that the drug is removed from the cerebrospinal fluid during the course of infection. There is no evidence that the drug is removed from the cerebrospinal fluid during the course of infection. There is no evidence that the drug is removed from the cerebrospinal fluid during the course of infection. There is no evidence that the drug is removed from the cerebrospinal fluid during the course of infection. There is no evidence that the drug is removed from the cerebrospinal fluid during the course of infection. There is no evidence that the drug is removed from the cerebrospinal fluid during the course of infection. There is no evidence that the drug is removed from the cerebrospinal fluid during the course of infection. There is no evidence that the drug is removed from the cerebrospinal fluid during the course of infection. There is no evidence that the drug is removed from the cerebrospinal fluid during the course of infection. There is no evidence that the drug is removed from the cerebrospinal fluid during the course of infection. There is no evidence that the drug is removed from the cerebrospinal fluid during the course of infection. There is no evidence that the drug is removed from the cerebrospinal fluid during the course of infection. There is no evidence that the drug is removed from the cerebrospinal fluid during the course of infection. There is no evidence that the drug is removed from the cerebrospinal fluid during the course of infection. There is no evidence that the drug is removed from the cerebrospinal fluid during the course of infection. There is no evidence that the drug is removed from the cerebrospinal fluid during the course of infection. There is no evidence that the drug is removed from the cerebrospinal fluid during the course of infection.
Information for Patients

Patients should be advised that antibiotic drugs, including ceftazidime for injection, should only be used to treat bacterial infections. They do not treat viral infections (such as the common cold). When bacterial infections are treated with antibiotics that are effective against them, the bacteria causing the infection may become weaker and develop resistance to the drug. If this happens, the drug will not work as well as before against bacteria causing future infections. If you have any questions about the use of your medicine, please speak with your healthcare provider.

Drug Interactions

No drug interactions have been reported. However, clinicians should be aware that the concurrent administration of aminoglycosides and cephalosporins has resulted in acute renal failure in some patients. Additionally, concurrent administration of other nephrotoxic agents such as vancomycin and amphotericin B can result in increased risk of renal failure.

Adverse Reactions

Adverse reactions to ceftazidime have been reported in patients receiving this drug for the treatment of infections. These include reactions such as rashes, fever, vomiting, and diarrhea. In rare cases, severe allergic reactions (anaphylaxis) have been reported. Patients should be monitored for any signs of adverse reactions. If an allergic reaction occurs, the drug should be discontinued.

Dosage and Administration

Ceftazidime should be administered as an intermittent IV infusion over 30 to 60 minutes. The dosage should be determined by the susceptibility of the causative organisms, the severity of infection, and the condition and renal function of the patient. The clinical and laboratory data should be monitored during treatment. The possibility of resistance developing during treatment should be considered.

INDICATIONS AND USAGE

Ceftazidime for Injection, USP is indicated for the treatment of infections caused by susceptible strains of the designated organisms. The choice of ceftazidime should be reserved for infections in which streptomycin-resistant strains are prevalent.

NURSING MOTHERS

It is not known if ceftazidime is excreted in human milk in detectable concentrations. Caution should be exercised when ceftazidime is administered to nursing women.

Pediatric Use

Adequate and well controlled studies in children have not been conducted. Caution should be exercised when using ceftazidime in children.

GERIATRIC USE

Adequate and well controlled studies in the elderly have not been conducted. Caution should be exercised when using ceftazidime in elderly patients.

GASTRIC EJECTION

Fasting may be associated with the decreases in gastric pH and increased gastric emptying time. Therefore, cephalosporins should be administered after meals. However, all patients should be monitored for signs of adverse reactions.

REPRODUCIBILITY OF RESULTS

Adequate and well controlled studies in animals have not been conducted. Caution should be exercised when using ceftazidime in pregnant women.

PROLONGED ADMINISTRATION

Adequate and well controlled studies in the long-term administration of ceftazidime have not been conducted. Caution should be exercised when using ceftazidime in patients requiring long-term treatment.

NURSING MOTHERS

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Pediatric Use

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GERIATRIC USE

Adequate and well controlled studies in the elderly have not been conducted. Caution should be exercised when using ceftazidime in elderly patients.

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