

Ceftavi™

(Ceftazidime + Avibactam)



COMPOSITION

Ceftavi 2.5g Injection IV: Each pack contains:

Vial: Sterile Ceftazidime Pentahydrate/Sodium Carbonate eq. to Ceftazidime 2g

Sterile Avibactam Sodium eq. to Avibactam 0.5g

DESCRIPTION

An antibacterial combination product consisting of the semisynthetic cephalosporin ceftazidime pentahydrate and the beta-lactamase inhibitor avibactam sodium for intravenous administration. Ceftazidime is a semisynthetic, third generation, broad-spectrum, beta-lactam antibacterial drug for parenteral administration. Avibactam is reversible non-beta-lactam, beta lactamase inhibitor.

MECHANISM OF ACTION

The ceftazidime is a cephalosporin antibacterial drug with in vitro activity against certain gram-negative and gram-positive bacteria. The bactericidal action of ceftazidime is mediated through binding to essential penicillin-binding proteins (PBPs). The avibactam component is a non-beta-lactam beta-lactamase inhibitor that inactivates certain beta-lactamases that degrade ceftazidime. Avibactam does not decrease the activity of ceftazidime against ceftazidime-susceptible organisms.

PHARMACOKINETICS

Ceftazidime is given by injection as the sodium salt or in solution with arginine. Mean peak plasma concentration of 17 and 39 micrograms/ml have been reported about 1 hour after intramuscular doses of 0.5 and 1 gram of ceftazidime respectively. Five minutes after intravenous bolus injections of 0.5, 1 and 2 grams of ceftazidime mean plasma concentration of 45, 90 and 170 micrograms/ml respectively, have been reported. The plasma half-life of ceftazidime is about 2 hours, but this prolongs in patients with renal impairment and neonates. Clearance may be enhanced in patients with cystic fibrosis. It is about 10% bound to plasma proteins.

Ceftazidime is widely distributed in body tissues and fluids; therapeutic concentration occurs in the CSF when the meninges are inflamed. It crosses the placenta and distributes into breast milk. Ceftazidime is passively excreted in bile, although only a small proportion is eliminated by this route. It is mainly excreted by the kidneys, almost exclusively by glomerular filtration; probenecid has little effect on the excretion. About 80 to 90% of a dose appears unchanged in the urine within 24 hours. It is removed by haemodialysis and peritoneal dialysis.

INDICATIONS AND USAGE

Ceftavi (ceftazidime and avibactam) combination is indicated in the following:

Complicated Intra-abdominal Infections (cIAI)

In combination with metronidazole, it is indicated for the treatment of complicated intra-abdominal infections (cIAI) in adult and paediatric patients (at least 3 week gestational age) caused by the following susceptible gram-negative microorganisms: *Escherichia coli*, *Klebsiella pneumoniae*, *Proteus mirabilis*, *Enterobacter cloacae*, *Klebsiella oxytoca*, *Citrobacter freundii* complex, and *Pseudomonas aeruginosa*.

Complicated Urinary Tract Infections (cUTI), including Pylonephritis

It is indicated for the treatment of complicated urinary tract infections (cUTI) including pyelonephritis in adult and paediatric patients (at least 3 week gestational age) caused by the following susceptible gram-negative microorganisms: *Escherichia coli*, *Klebsiella pneumoniae*, *Enterobacter cloacae*, *Citrobacter freundii* complex, *Proteus mirabilis*, and *Pseudomonas aeruginosa*.

Hospital-acquired Bacterial Pneumonia and Ventilator-associated Bacterial Pneumonia (HABP/VABP)

It is indicated for the treatment of hospital-acquired bacterial pneumonia adults and pediatric patients (at least 3 week gestational age) bacterial pneumonia (HABP/VABP) in 18 years or older caused by the following susceptible gram-negative microorganisms: *Klebsiella pneumoniae*, *Enterobacter cloacae*, *Escherichia coli*, *Serratia marcescens*, *Proteus mirabilis*, *Pseudomonas aeruginosa*, and *Haemophilus influenzae*.

USAGE:

To reduce the development of drug-resistant bacteria and maintain the effectiveness of Ceftazidime and avibactam and other antibacterial drugs, it 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.

Efficacy against specific pathogens

Complicated Intra-abdominal Infections (cIAI)

Aerobic Bacteria, Gram-negative Bacteria

- *Citrobacter freundii* complex
- *Enterobacter cloacae*
- *Escherichia coli*
- *Klebsiella oxytoca*
- *Klebsiella pneumoniae*
- *Proteus mirabilis*
- *Pseudomonas aeruginosa*

Complicated Urinary Tract Infections (cUTI), including Pylonephritis

Aerobic Bacteria, Gram-negative Bacteria

- *Citrobacter freundii* complex
- *Enterobacter cloacae*
- *Escherichia coli*
- *Klebsiella pneumoniae*
- *Proteus mirabilis*
- *Pseudomonas aeruginosa*

Hospital-acquired Bacterial Pneumonia and Ventilator-associated Bacterial Pneumonia (HABP/VABP)

Aerobic Bacteria, Gram-negative Bacteria

- *Enterobacter cloacae*
- *Escherichia coli*
- *Haemophilus influenzae*
- *Klebsiella pneumoniae*
- *Proteus mirabilis*
- *Pseudomonas aeruginosa*
- *Serratia marcescens*

It demonstrated in vitro activity against Enterobacteriaceae in the presence of some beta-lactamases and extended-spectrum beta-lactamases (ESBLs) of the following groups: TEM, SHV, CTX-M, *Klebsiella pneumoniae* carbapenemase (KPCs), AmpC, and certain oxacillinases (OXA). It also demonstrated in vitro activity against *P. aeruginosa* in the presence of some AmpC beta-lactamases, and certain strains lacking outer membrane porin (OprD). This combination (Ceftazidime and avibactam) is not active against bacteria that produce metallo-beta lactamases and may not have activity against gram-negative bacteria that overexpress efflux pumps or have porin mutations. No cross-resistance with other classes of antimicrobials has been identified. Some isolates resistant to other cephalosporins (including ceftazidime) and to carbapenems may be susceptible to this combination. In vitro studies have not demonstrated antagonism between this combination, (Ceftazidime and avibactam), and colistin, levofloxacin, linezolid, metronidazole, tigecycline, tobramycin, or vancomycin. Avibactam restored activity of ceftazidime in animal models of infection (e.g. thigh infection, pyelonephritis, systemic infection induced by intraperitoneal injection) caused by ceftazidime non-susceptible beta-lactamase producing (e.g., ESBL, KPC and AmpC) gram-negative bacteria.

DOSAGE AND ADMINISTRATION

Adults

The recommended dosage is 2.5 grams (ceftazidime 2 grams and avibactam 0.5 grams) administered every 8 hours by intravenous (IV) infusion over 2 hours in patients 18 years of age and older with CrCl greater than 50 mL/min. For treatment of cIAI, metronidazole should be given concurrently. The guidelines for dosage of this combination in patients with creatinine clearance (CrCl) greater than 50 mL/min are as follows:

Dosage of Ceftazidime 2 grams and Avibactam 0.5 grams by indication				
Infection	Dose	Frequency	Duration (hours)	Duration of Treatment
Complicated Intra-abdominal Infections (cIAI)*	2.5 grams	Every 8 hours	2	cIAI: 5 to 14 days cUTI: 7 to 14 days HABP/VABP: 7 to 14 days
Complicated Urinary Tract Infections including Pylonephritis (cUTI)				
Hospital-acquired Bacterial Pneumonia and Ventilator-associated Bacterial Pneumonia (HABP/VABP)				

* Used in conjunction with metronidazole 0.5 g intravenously every 8 hours in adult cIAI patients.

Paediatric Patients

Recommended Dosage in Paediatric Patients

The recommended dosage of Ceftazidime/Avibactam in paediatric patients aged 2 years to less than 18 years and an estimated glomerular filtration rate (eGFR) greater than 50 mL/min/1.73 m² and in paediatric patients aged less than 2 years without renal impairment is described in Table below. It is administered every 8 hours by intravenous infusion over 2 hours. For treatment of cIAI, metronidazole should be given concurrently.

Dosage of Ceftavi (ceftazidime and avibactam) in Paediatric Patients					
Infection	Age Range	Dose	Frequency	Infusion Time	Duration of treatment
cIAI*, cUTI including Pylonephritis, and HABP/VABP	2 years to less than 18 years*	62.5 mg/kg to a maximum of 2.5 grams (ceftazidime 50 mg/kg and avibactam 12.5 mg/kg to a maximum dose of ceftazidime 2 grams and avibactam 0.5 grams)	Every 8 hours	2 hours	cIAI: 5 to 14 days cUTI: 7 to 14 days HABP/VABP: 7 to 14 days
	6 months to less than 2 years	62.5 mg/kg (ceftazidime 50 mg/kg and avibactam 12.5 mg/kg)			
	3 months to less than 6 months	50 mg/kg (ceftazidime 40 mg/kg and avibactam 10 mg/kg)			
	Greater than 28 days to less than 3 months	37.5 mg/kg (ceftazidime 30 mg/kg and avibactam 7.5 mg/kg)			
	Less than or equal to 28 days with GA 31 weeks and older	25 mg/kg (ceftazidime 20 mg/kg and avibactam 5 mg/kg)			

* used in conjunction with metronidazole 10 mg/kg intravenously every 8 hours in paediatric cIAI patient

† For paediatric patients (aged 2 years and older) with eGFR less than or equal to 50 mL/min/1.73m², dosage adjustments are recommended.

‡ Includes full-term infants with PNA > 28 days and pre-term infants with corrected age > 28 days. Corrected age is calculated by subtracting the number of weeks born before 40 weeks of gestation from the postnatal age.

§ Includes neonates PNA ≤ 28 days and pre-term infants with corrected age ≤ 28 days. GA = gestational age and PNA = postnatal age.

Dosage Adjustments in Adult and Paediatric Patients (Aged 2 Years and Older) with Renal Impairment

The recommended dosage in adult and paediatric patients aged 2 years and older with varying degrees of renal function is given. For patients with changing renal function, monitor CrCl in adults or eGFR in paediatric patients at least daily and adjust the dosage accordingly. There is insufficient information to recommend a dosing regimen for paediatric patients less than 2 years of age with renal impairment.

Dosage in Adult Patients with Renal Impairment		
Estimated Creatinine Clearance (mL/minute) ^a	Dose for Ceftazidime and Avibactam ^b	Frequency
31 to 50	1.25 grams (ceftazidime 1 gram and avibactam 0.25 grams) intravenously	Every 8 hours
16 to 30	0.94 grams (ceftazidime 0.75 grams and avibactam 0.19 grams) intravenously	Every 12 hours
6 to 15 ^c	0.94 grams (ceftazidime 0.75 grams and avibactam 0.19 grams) intravenously	Every 24 hours
Less than or equal to 5 ^d	0.94 grams (ceftazidime 0.75 grams and avibactam 0.19 grams) intravenously	Every 48 hours

^a As calculated using the Cockcroft-Gault formula

^b All doses are administered over 2 hours

^c Both ceftazidime and avibactam are haemodialyzable; thus, administer it after haemodialysis on haemodialysis days

Dosage in Paediatric Patients Aged 2 years and older with Renal Impairment ^a		
Estimated eGFR ^b (mL/min/1.73m ²)	Dose of Ceftazidime and Avibactam ^c	Frequency
31 to 50	31.25 mg/kg to a maximum of 1.25 grams (Ceftazidime 25 mg/kg and avibactam 6.25 mg/kg to a maximum dose of ceftazidime 1 gram and avibactam 0.25 grams)	Every 8 hours
16 to 30	23.75 mg/kg to a maximum of 0.94 grams (Ceftazidime 19 mg/kg and avibactam 4.75 mg/kg to a maximum dose of ceftazidime 0.75 grams and avibactam 0.19 grams)	Every 12 hours
6 to 15	23.75 mg/kg to a maximum of 0.94 grams (Ceftazidime 19 mg/kg and avibactam 4.75 mg/kg to a maximum dose of ceftazidime 0.75 grams and avibactam 0.19 grams)	Every 24 hours
Less than or equal to 5 ^d	23.75 mg/kg to a maximum of 0.94 grams (Ceftazidime 19 mg/kg and avibactam 4.75 mg/kg to a maximum dose of ceftazidime 0.75 grams and avibactam 0.19 grams)	Every 48 hours

^a Dosing was derived based on the population PK modelling, which assumed similar proportional effects of renal impairment in adults and paediatric patients aged 2 years and older.

^b As calculated using the Schwartz bedside formula.

^c All doses are administered over 2 hours.

^d Both ceftazidime and avibactam are haemodialyzable; thus, administer it after haemodialysis on haemodialysis days.

Preparation of the Solution for Administration

a) Constitute the powder in the vial with 10 mL of one of the following solutions:

- sterile water for injection,
- 0.9% of sodium chloride injection, (normal saline)
- 5% of dextrose injection,
- all combinations of dextrose injection and sodium chloride injection, containing up to 2.5% dextrose, and 0.45% sodium chloride,
- lactated Ringer's injection.

b) Mix gently and ensure that the contents are dissolved completely. The constituted solution will have an approximate ceftazidime concentration of 167 mg/mL and an approximate avibactam concentration of 42 mg/mL. The final volume is approximately 12 mL. The constituted solution is not for direct injection. The constituted solution must be diluted before intravenous infusion.

c) Prepare the required dose for intravenous infusion by withdrawing the appropriate volume determined from the given table from the constituted vial. To prepare doses for paediatric patients weighing less than 40 kg, follow the constitution instruction above to yield a solution with a final concentration of approximately 209 mg/mL (ceftazidime concentration of 167 mg/mL and an avibactam concentration of 42 mg/mL). Use these concentrations to calculate the volume required to prepare the prescribed dose.

Preparation of Doses for Adult and Paediatric Patients (Weighing 40 kg or More)	
Ceftazidime and Avibactam Dose	Volume to Withdraw from Constituted Vial for Further Dilution to 50 to 250 ^a mL
2.5 grams (2 grams and 0.5 grams)	12 mL (entire contents)
1.25 grams (1 gram and 0.25 grams)	6 mL
0.94 grams (0.75 grams and 0.19 grams)	4.5 mL

^a Dilution to 250 mL should only be used for the 2.5 gram dose

d) Before infusion, dilute the withdrawn volume of the constituted solution further with the same diluent used for constitution of

the powder (except sterile water for injection), to achieve a ceftazidime concentration of 8 to 40 mg/mL and an avibactam concentration of 2 to 10 mg/mL in an infusion bag. If sterile water for injection was used for constitution, use any of the other appropriate constitution diluents for dilution.

e) Mix gently and ensure that the contents are dissolved completely. Visually inspect the diluted Ceftazidime/Avibactam solution (for administration) for particulate matter and discoloration prior to administration. The colour of the infusion solution for administration ranges from clear to light yellow.

f) Use the diluted solution in the infusion bags within 12 hours when stored at room temperature.

g) The diluted solution in the infusion bags may be stored under refrigeration at 2 to 8°C up to 24 hours following dilution and used within 12 hours of subsequent storage at room temperature.

Drug Compatibility

The solution for administration at the range of diluted concentrations of ceftazidime 8 mg/mL and avibactam 2 mg/mL to ceftazidime 40 mg/mL and avibactam 10 mg/mL is compatible with the more commonly used intravenous infusion fluids in infusion bags such as:

- 0.9% sodium chloride injection
- 5% dextrose injection
- all combinations of dextrose injection and sodium chloride injection, USP, containing up to 2.5% dextrose, USP, and 0.45% sodium chloride
- lactated ringer's injection.

Incompatibilities:

The compatibility of Ceftavi with other medicines has not been established. Ceftavi should not be mixed with or physically added to solutions containing other medicinal products.

Storage of Constituted Solutions

Upon constitution with appropriate diluent, the constituted solution may be held for no longer than 30 minutes prior to transfer and dilution in a suitable infusion bag. Following dilution of the constituted solutions with the appropriate diluents, Ceftazidime avibactam solutions in the infusion bags are stable for 12 hours when stored at room temperature. Following dilution of the constituted solutions with the appropriate diluents, solutions in the infusion bags may also be refrigerated at 2 to 8°C (36 to 46°F) for up to 24 hours; and then should be used within 12 hours of subsequent storage at room temperature.

CONTRAINDICATIONS

This combination (Ceftazidime and avibactam) is contraindicated in the following:

- Hypersensitivity to the active substances or to any of the excipients.
- Hypersensitivity to any cephalosporin antibacterial agent.
- Severe hypersensitivity (e.g. anaphylactic reaction, severe skin reaction) to any other type of β-lactam antibacterial agent (e.g. penicillins, monobactams or carbapenems).

ADVERSE REACTIONS

The reported adverse events are: Hypersensitivity reactions, clostridium difficile associated diarrhoea, headache, dizziness, paraesthesia, seizures, coma, encephalopathy, asterixis, neuromuscular excitability, myoclonia, diarrhoea, abdominal pain, nausea, vomiting, dysgeusia, constipation, thrombocytosis, thrombocytopenia, neutropenia, leukopenia, lymphocytosis, agranulocytosis, haemolytic anaemia, eosinophilia, candidiasis (including vulvovaginal candidiasis and oral candidiasis), clostridioides difficile colitis, pseudomembranous colitis, rash maculopapular, urticaria, pruritus, toxic epidermal necrolysis, Stevens-Johnson syndrome, erythema multiforme, angioedema, Drug Reaction with Eosinophilia and Systemic Symptoms (DRESS), blood creatinine increased, blood urea increased, acute kidney injury, tubulointerstitial nephritis, renal impairment, nephrolithiasis, infusion site thrombosis, infusion site phlebitis, pyrexia, infusion site inflammation, injection site hematoma, hypokalaemia, anxiety, vaginal inflammation, alanine aminotransferase increased, aspartate aminotransferase increased, blood alkaline phosphatase increased, gamma glutamyl transferase increased, jaundice, combs direct test positive, eosinophilia, anaphylactic reaction, increased blood lactate dehydrogenase, prolonged prothrombin time, colitis, toxic nephropathy, hepatic dysfunction including cholestasis, haemorrhage, pancytopenia, aplastic anaemia, and false positive test for urinary glucose.

DRUG INTERACTIONS

A clinical interaction study of ceftazidime avibactam or avibactam alone with probenecid has not been conducted, therefore co-administration of ceftazidime avibactam with probenecid is not recommended. In vitro, avibactam is a substrate of OAT1 and OAT3 transporters which might contribute to the active uptake from the blood compartment, and thereby its excretion. As a potent OAT inhibitor, probenecid inhibits OAT uptake of avibactam by 56% to 70% in vitro and, therefore, has the potential to decrease the elimination of avibactam when co-administered.

The administration of ceftazidime may result in a false-positive reaction for glucose in the urine with certain methods. It is recommended that glucose tests based on enzymatic glucose oxidase reactions be used.

Avibactam showed no significant inhibition of cytochrome P450 enzymes in vitro. Avibactam and ceftazidime showed no in vitro cytochrome P450 induction at clinically relevant concentrations. Avibactam and ceftazidime do not inhibit the major renal or hepatic transporters in the clinically relevant exposure range, therefore the interaction potential via these mechanisms is considered to be low. There is no interaction between ceftazidime and avibactam, and between ceftazidime/avibactam and metronidazole.

Concurrent treatment with high doses of cephalosporins and nephrotoxic medicinal products such as aminoglycosides or potent diuretics (e.g. furosemide) may adversely affect renal function.

Chloramphenicol is antagonistic in vitro with ceftazidime and other cephalosporins. The clinical relevance of this finding is unknown, but due to the possibility of antagonism in vivo this drug combination should be avoided.

WARNINGS AND PRECAUTIONS

Serious and occasionally fatal hypersensitivity reactions are possible. In case of hypersensitivity reactions, treatment must be discontinued immediately and adequate emergency measures must be initiated. There have been reports of hypersensitivity reactions which progressed to Kounis syndrome. Before beginning treatment, it should be established whether the patient has a history of hypersensitivity reactions to ceftazidime, to other cephalosporins or to any other type of β-lactam antibacterial agent. Caution should be used if this combination (Ceftazidime and avibactam) is given to patients with a history of non-severe hypersensitivity to penicillins, monobactams or carbapenems.

Clostridioides difficile - associated diarrhoea has been reported with this combination (Ceftazidime and avibactam), and can range in severity from mild to life-threatening. This diagnosis should be considered in patients who present with diarrhoea during or subsequent to its administration. Discontinuation of therapy and the administration of specific treatment for *Clostridioides difficile* should be considered. Medicinal products that inhibit peristalsis should not be given.

Ceftazidime and avibactam are eliminated via the kidneys, therefore, the dose should be reduced according to the degree of renal impairment. Neurological sequelae, including tremor, myoclonus, non-convulsive status epilepticus, convulsion, encephalopathy and coma, have occasionally been reported with ceftazidime when the dose has not been reduced in patients with renal impairment. In patients with renal impairment, close monitoring of estimated creatinine clearance is advised. In some patients, the creatinine clearance estimated from serum creatinine can change quickly, especially early in the course of treatment for the infection. Clinical cure rates were seen to be lower in a subgroup of patients with baseline CrCl of 30 to less than or equal to 50 mL/min compared to those with CrCl greater than 50 mL/min. The reduction in clinical cure rates was more marked in patients treated with Ceftazidime avibactam combination plus metronidazole compared to meropenem-treated patients. Within this subgroup, patients treated with Ceftazidime and avibactam received a 33% lower daily dose than is currently recommended for patients with CrCl 30 to less than or equal to 50 mL/min. The decreased clinical response was not observed for patients with moderate renal impairment at baseline (CrCl of 30 to less than or equal to 50 mL/min) in the Phase 3 cUTI trials or the Phase 3 HABP/VABP trial. Monitor CrCl at least daily in adult and paediatric patients with changing renal function and adjust the dosage accordingly.

Concurrent treatment with high doses of cephalosporins and nephrotoxic medicinal products such as aminoglycosides or potent diuretics (e.g. furosemide) may adversely affect renal function.

This combination (Ceftazidime and avibactam) may cause development of a positive direct antiglobulin test (DAGT, or Coombs test), which may interfere with the cross-matching of blood and/or may cause drug induced immune haemolytic anaemia. There was no evidence of haemolysis in patients who developed a positive DAGT on treatment. However, the possibility that haemolytic anaemia could occur in association with this treatment cannot be ruled out. Patients experiencing anaemia during or after treatment with it should be investigated for this possibility.

Ceftazidime has little or no activity against the majority of Gram-positive organisms and anaerobes. Additional antibacterial agents should be used when these pathogens are known or suspected to be contributing to the infectious process. The inhibitory spectrum of avibactam includes many of the enzymes that inactivate ceftazidime, including Ambler class A β-lactamases and class C β-lactamases. Avibactam does not inhibit class B enzymes (metallo-β-lactamases) and is not able to inhibit many of the class D enzymes.

Prolonged use may result in the overgrowth of non-susceptible organisms (e.g. enterococci, fungi), which may require interruption of treatment or other appropriate measures.

Ceftazidime may interfere with copper reduction methods (Benedict's, Fehling's, ClinTest) for detection of glycosuria leading to false positive results. Ceftazidime does not interfere with enzyme-based tests for glycosuria.

This medicinal product contains approximately 146 mg sodium per vial, equivalent to 7.3% of the WHO recommended maximum daily intake (RDI) of 2 g sodium for an adult. The maximum daily dose of this product is equivalent to 22% of the WHO recommended maximum daily intake for sodium. It is considered high in sodium. This should be considered when administering it to patients who are on a controlled sodium diet. It may be diluted with sodium-containing solutions and this should be considered in relation to the total sodium from all sources that will be administered to the patient.

There is a potential risk of overdosing, particularly for paediatric patients aged from 3 to less than 12 months of age. Care should be taken when calculating the volume of administration of the dose.

Reactions Seizures, nonconvulsive status epilepticus (NCSE), encephalopathy, coma, asterixis, neuromuscular excitability, and myoclonia have been reported in patients treated with ceftazidime, particularly in the setting of renal impairment. Adjust dosing based on creatinine clearance.

Prescribing it 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.

USE IN SPECIFIC POPULATIONS

Pregnancy

This combination (Ceftazidime and avibactam) should only be used during pregnancy if the potential benefit outweighs the possible risk. Studies with ceftazidime do not indicate direct or indirect harmful effects with respect to pregnancy, embryonal/fetal development, parturition or postnatal development. Studies with avibactam have shown reproductive toxicity without evidence of teratogenic effects.

Breast-feeding

Ceftazidime is excreted in human milk in small quantities. It is unknown whether avibactam is excreted in human milk. A risk to newborns/infants cannot be excluded. A decision must be made whether to discontinue breast feeding or to discontinue/abstain from this therapy (Ceftazidime and avibactam) taking into account the benefit of breast feeding for the child and the benefit of therapy for the woman.

Fertility

The effects of this combination (Ceftazidime and avibactam) on fertility in humans have not been studied. Studies with avibactam do not indicate harmful effects with respect to fertility.

Paediatric population:

The safety profile was similar to that observed in the adult population with cIAI and cUTI.

OVERDOSAGE

Overdose with this combination (Ceftazidime and avibactam) can lead to neurological sequelae including encephalopathy, convulsions and coma, due to the ceftazidime component. Serum levels of ceftazidime can be reduced by haemodialysis or peritoneal dialysis. During a 4-hour haemodialysis period, 55% of the avibactam dose was removed.

DOSAGE AND INSTRUCTIONS