

Package leaflet: Information for the patient

Zerbaxa® 1 g / 0.5 g powder for concentrate for solution for infusion ceftolozane / tazobactam

Read all of this leaflet carefully before you start taking this medicine because it contains important information for you.

- Keep this leaflet. You may need to read it again.
- If you have any further questions, ask your doctor or pharmacist.
- If you get any side effects, talk to your doctor or pharmacist. This includes any possible side effects not listed in this leaflet. See section 4.

What is in this leaflet

1. What Zerbaxa is and what it is used for
2. What you need to know before you take Zerbaxa
3. How to take Zerbaxa
4. Possible side effects
5. How to store Zerbaxa
6. Contents of the pack and other information

1. What Zerbaxa is and what it is used for

Zerbaxa is a medicine used to treat a range of bacterial infections. It contains two active substances:

- ceftolozane, an antibiotic that belongs to the group of “cephalosporins” and which can kill certain bacteria that can cause infection;
- tazobactam, which blocks the action of certain enzymes called beta-lactamases. These enzymes make bacteria resistant to ceftolozane by breaking down the antibiotic before it can act. By blocking their action, tazobactam makes ceftolozane more effective at killing bacteria.

Zerbaxa is used in adults to treat complicated infections within the abdomen, kidney and urinary system infections, and an infection of the lungs called “pneumonia”.

2. What you need to know before you take Zerbaxa

Do not take Zerbaxa

- if you are allergic to ceftolozane, tazobactam or any of the other ingredients of this medicine (listed in section 6).
- if you are allergic to medicines known as “cephalosporins”.
- if you have had a severe allergic reaction (e.g., severe skin peeling; swelling of the face, hands, feet, lips, tongue or throat; or difficulty swallowing or breathing) to certain other antibiotics (e.g., penicillins or carbapenems).

Warnings and precautions

Talk to your doctor or pharmacist before taking Zerbaxa if you know you are, or have previously been allergic to cephalosporins, penicillins or other antibiotics.

Talk to your doctor or pharmacist if you develop diarrhoea while taking Zerbaxa.

Infections caused by bacteria that are not sensitive to Zerbaxa or caused by a fungus can occur during or following treatment with Zerbaxa. Tell your doctor if you think you may have another infection.

Treatment with Zerbaxa sometimes causes production of antibodies that react with your red blood cells. If you are told that you have an abnormal blood test (called Coombs test) tell your doctor that you are having or have recently had Zerbaxa.

Children and adolescents

This medicine should not be given to children under 18 years old because there is not enough information on use in this age group.

Other medicines and Zerbaxa

Tell your doctor or pharmacist if you are taking, have recently taken, or might take any other medicines.

Some medicines may interact with ceftolozane and tazobactam. These include:

- Probenecid (a medicine for gout). This can increase the time it takes for tazobactam to leave your body.

Pregnancy and breast-feeding

If you are pregnant or breast-feeding, or think you may be pregnant, ask your doctor or pharmacist for advice before taking this medicine. Your doctor will advise if you should receive Zerbaxa during pregnancy.

If you are breast-feeding, your doctor will advise you on whether you should stop breast-feeding or stop or avoid Zerbaxa therapy, taking into account the benefit of breast-feeding for the child and the benefit of therapy for you.

Driving and using machines

Zerbaxa may cause dizziness, which can affect your ability to drive and use machines.

Zerbaxa contains sodium

This medicine contains 230 mg sodium (main component of cooking/table salt) in each vial. This is equivalent to 11.5% of the recommended maximum daily dietary intake of sodium for an adult. The reconstituted vial with 10 mL of 0.9% sodium chloride (normal saline) for injection contains 265 mg sodium in each vial. This is equivalent to 13.3% of the recommended maximum daily dietary intake of sodium for an adult.

3. How to take Zerbaxa

Your doctor or other healthcare professional will give you this medicine into one of your veins through an infusion (a drip) lasting one hour. The dose of medicine given to you depends on whether or not you have kidney problems.

Adults

The dose depends on the type of infection that you have, where the infection is in your body and how serious the infection is. Your doctor will decide on the dose that you need.

The recommended dose of Zerbaxa is 1 g of ceftolozane and 0.5 g of tazobactam or 2 g of ceftolozane and 1 g of tazobactam every 8 hours, which is given into one of your veins (directly into the bloodstream).

Treatment with Zerbaxa normally lasts between 4 and 14 days, depending on the severity and location of the infection and on how your body responds to the treatment.

Patients with kidney problems

Your doctor may need to reduce the dose of Zerbaxa or decide how often Zerbaxa is given to you. Your doctor may also want to test your blood to make sure you receive an appropriate dose, especially if you have to take this medicine for a long time.

If you take more Zerbaxa than you should

As this product is given by a doctor or other healthcare professional, it is very unlikely that you will be given too much Zerbaxa. However, if you have any concerns you should let your doctor, nurse or pharmacist know immediately.

If you stop taking Zerbaxa

If you think you have not been given a dose of Zerbaxa, tell your doctor or other healthcare professional immediately.

If you have any further questions on the use of this medicine, ask your doctor or pharmacist.

4. Possible side effects

Like all medicines, this medicine can cause side effects, although not everybody gets them.

Tell your doctor straight away if you get these symptoms as you may need urgent medical treatment:

- Sudden swelling of your lips, face, throat or tongue; a severe rash; and, swallowing or breathing problems. These may be signs of a severe allergic reaction (anaphylaxis) and may be life-threatening
- Diarrhoea that becomes severe or does not go away or stool that contains blood or mucus during or after treatment with Zerbaxa. In this situation, you should not take medicines that stop or slow bowel movement

Patients treated for complicated infections within the abdomen, and kidney and urinary system

Common side effects (may affect up to 1 in 10 people):

Headache, stomach ache, constipation, diarrhoea, nausea, vomiting, increase in liver enzymes (from blood tests), rash, fever (high temperature), decrease in blood pressure, decrease in potassium (from blood tests), increase in the number of certain types of blood cells known as platelets, dizziness, anxiety, difficulty sleeping, infusion site reactions

Uncommon side effects (may affect up to 1 in 100 people):

Inflammation of the large intestine due to *C. difficile* bacteria, inflammation of the stomach, abdominal distension, indigestion, excessive gas in stomach or bowel, obstruction of the intestine, yeast infection in the mouth (thrush), yeast infection of female genitalia, fungal urinary tract infection, increase in sugar (glucose) levels (from blood tests), decrease in magnesium levels (from blood tests), decrease in phosphate levels (from blood tests), ischemic stroke (stroke caused by reduced blood flow in brain), irritation or inflammation of a vein at injection site, venous thrombosis (blood clot in a vein), low red blood cell counts, atrial fibrillation (rapid or irregular heartbeat), fast heart beat, angina pectoris (chest pain or feeling of tightness, pressure or heaviness in chest), itchy rash or swellings on the skin, hives, Coombs test positive (a blood test that looks for antibodies that may fight against your red blood cells), kidney problems, kidney disease, shortness of breath

Patients treated for an infection of the lungs called “pneumonia”

Common side effects (may affect up to 1 in 10 people):

Inflammation of the large intestine due to *C. difficile* bacteria, diarrhoea, vomiting, increase in liver enzymes (from blood tests)

Uncommon side effects (may affect up to 1 in 100 people):

Infection due to *C. difficile* bacteria, *C. difficile* test positive (from stool test), Coombs test positive (a blood test that looks for antibodies that may fight against your red blood cells)

Reporting of side effects

If you get any side effects, talk to your doctor or pharmacist. This includes any possible side effects not listed in this leaflet. You can also report side effects directly via the Yellow Card Scheme at: www.mhra.gov.uk/yellowcard or search for MHRA Yellow Card in the Google Play or Apple App Store. By reporting side effects you can help provide more information on the safety of this medicine.

5. How to store Zerbaxa

Keep this medicine out of the sight and reach of children.

Do not use this medicine after the expiry date which is stated on the carton and vial after “EXP.” The expiry date refers to the last day of that month.

Unopened vials: Store in a refrigerator (2°C – 8°C).

Store in the original package in order to protect from light.

Do not throw away any medicines via wastewater. Any unused medicinal product or waste material should be disposed of in accordance with local requirements. These measures will help protect the environment.

6. Contents of the pack and other information

What Zerbaxa contains

- The active substances are ceftolozane and tazobactam.
- Each vial contains ceftolozane sulfate equivalent to 1 g ceftolozane and tazobactam sodium equivalent to 0.5 g tazobactam. For doses above 1 g ceftolozane and 0.5 g tazobactam, two vials are used.
- The other excipients are sodium chloride, arginine, and citric acid, anhydrous.

What Zerbaxa looks like and contents of the pack

Zerbaxa is a white to slightly yellow powder for concentrate for solution for infusion (powder for concentrate) supplied in a vial.

Zerbaxa is available in packs containing 20 mL Type I clear glass vial with stopper (bromobutyl rubber) and flip-off seal.

Pack size of 10 vials.

Marketing Authorisation Holder

Merck Sharp & Dohme B.V.
Waarderweg 39
2031 BN Haarlem
The Netherlands

Manufacturer

Laboratoires Merck Sharp & Dohme Chibret
Route de Marsat
Riom
63963, Clermont Ferrand Cedex 9
France

For any information about this medicine, please contact the local representative of the Marketing Authorisation Holder:

United Kingdom

Merck Sharp & Dohme Limited
Tel: +44 (0) 1992 467272
medicalinformationuk@msd.com

This leaflet was last revised in June 2020.

Other sources of information

Detailed information on this medicine is available on the European Medicines Agency web site:
<http://www.ema.europa.eu>.

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The following information is intended for healthcare professionals only:

Preparation of solutions

Each vial is for single use only.

Aseptic technique must be followed in preparing the infusion solution.

Preparation of doses

The powder for concentrate for solution for infusion for each vial is reconstituted with 10 mL of water for injections or sodium chloride 9 mg/mL (0.9%) solution for injection per vial; following reconstitution the vial should be shaken gently to dissolve the powder. The final volume is approximately 11.4 mL per vial. The resultant concentration is approximately 132 mg/mL (88 mg/mL of ceftolozane and 44 mg/mL of tazobactam) per vial .

CAUTION: THE RECONSTITUTED SOLUTION IS NOT FOR DIRECT INJECTION.

See section 4.2 of the Summary of Product Characteristics for recommended dose regimens for Zerbaxa based on indication and renal function. The preparation for each dose is shown below.

For preparation of the 2 g ceftolozane / 1 g tazobactam dose: Withdraw the entire contents from two reconstituted vials (approximately 11.4 mL per vial) using a syringe and add it to an infusion bag containing 100 mL of 0.9% sodium chloride for injection (normal saline) or 5% glucose injection.

For preparation of the 1.5 g ceftolozane / 0.75 g tazobactam dose: Withdraw the entire contents from one reconstituted vial (approximately 11.4 mL per vial) and 5.7 mL from a second reconstituted vial using a syringe and add it to an infusion bag containing 100 mL of 0.9% sodium chloride for injection (normal saline) or 5% glucose injection.

For preparation of the 1 g ceftolozane/ 0.5 g tazobactam dose: Withdraw the entire contents (approximately 11.4 mL) of the reconstituted vial using a syringe and add it to an infusion bag containing 100 mL of 0.9% sodium chloride for injection (normal saline) or 5% glucose injection.

For preparation of the 500 mg ceftolozane / 250 mg tazobactam dose: Withdraw 5.7 mL of the contents of the reconstituted vial and add it to an infusion bag containing 100 mL of 0.9% sodium chloride for injection (normal saline) or 5% glucose injection.

For preparation of the 300 mg ceftolozane / 150 mg tazobactam dose: Withdraw 3.5 mL of the contents of the reconstituted vial and add it to an infusion bag containing 100 mL of 0.9% sodium chloride for injection (normal saline) or 5% glucose injection.

For preparation of the 250 mg ceftolozane / 125 mg tazobactam dose: Withdraw 2.9 mL of the contents of the reconstituted vial and add it to an infusion bag containing 100 mL of 0.9% sodium chloride for injection (normal saline) or 5% glucose injection.

For preparation of the 100 mg ceftolozane / 50 mg tazobactam dose: Withdraw 1.2 mL of the contents of the reconstituted vial and add it to an infusion bag containing 100 mL of 0.9% sodium chloride for injection (normal saline) or 5% glucose injection.

Zerbaxa solution for infusion is clear and colourless to slightly yellow.

Variations in colour within this range do not affect the potency of the product.

After reconstitution and dilution, chemical and physical in-use stability has been demonstrated for 24 hours at room temperature or 4 days at 2 to 8°C. The medicinal product is photosensitive and should be protected from light when not stored in the original carton.

From a microbiological point of view, the medicinal product should be used immediately upon reconstitution. If not used immediately, in-use storage times and conditions prior to use are the responsibility of the user and would normally not be longer than 24 hours at 2 to 8°C, unless reconstitution/dilution has taken place in controlled and validated aseptic conditions.

One of the active ingredients, ceftolozane, may have harmful effects if it reaches the aquatic environment. Do not throw away any unused medicinal product or waste material via wastewater. Any unused medicinal product or waste material should be disposed of in accordance with local requirements. These measures will help protect the environment.

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