

## PACKAGE LEAFLET: INFORMATION FOR THE USER

### PIPERACILLIN/TAZOBACTAM TEVA 4 g/500 mg POWDER FOR SOLUTION FOR INFUSION

piperacillin/ tazobactam

**Read all of this leaflet carefully before you start using 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, pharmacist or nurse.
- If you get any side effects, talk to your doctor, pharmacist or nurse. This includes any possible side effects not listed in this leaflet. See section 4.

#### **What is in this leaflet**

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

#### **1. What Piperacillin/Tazobactam Teva is and what it is used for**

Piperacillin belongs to the group of medicines known as “broad-spectrum penicillin antibiotics”. It can kill many kinds of bacteria. Tazobactam can prevent some resistant bacteria from surviving the effects of piperacillin. This means that when piperacillin and tazobactam are given together, more types of bacteria are killed.

Piperacillin/Tazobactam Teva is used in adults and adolescents to treat bacterial infections, such as those affecting the lower respiratory tract (lungs), urinary tract (kidneys and bladder), abdomen, skin or blood. Piperacillin/Tazobactam Teva may be used to treat bacterial infections in patients with low white blood cell counts (reduced resistance to infections).

Piperacillin/Tazobactam Teva is used in children aged 2-12 to treat infections of the abdomen such as appendicitis, peritonitis (infection of the fluid and lining of the abdominal organs), and gallbladder (biliary) infections. Piperacillin/Tazobactam Teva may be used to treat bacterial infections in patients with low white blood cell counts (reduced resistance to infections).

In certain serious infections, your doctor may consider using Piperacillin/Tazobactam Teva in combination with other antibiotics.

#### **2. What you need to know before you use Piperacillin/Tazobactam Teva**

##### **Do not use Piperacillin/Tazobactam Teva:**

- if you are allergic to piperacillin or tazobactam.
- if you are allergic to antibiotics known as penicillins, cephalosporins or other beta-lactamase inhibitors, as you may be allergic to Piperacillin/Tazobactam Teva.

#### **Warnings and precautions**

Talk to your doctor, pharmacist or nurse before using Piperacillin/Tazobactam Teva

- if you have allergies. If you have several allergies, make sure you tell your doctor or other healthcare professional before receiving this product.
- if you are suffering from diarrhoea before, or if you develop diarrhoea during or after your treatment. In this case, make sure you tell your doctor or other healthcare professional immediately. Do not take any medicine for the diarrhoea without first checking with your doctor.

- if you have low levels of potassium in your blood. Your doctor may want to check your kidneys before you take this medicine and may perform regular blood tests during treatment.
- if you have kidney or liver problems, or are receiving haemodialysis. Your doctor may want to check your kidneys before you take this medicine, and may perform regular blood tests during treatment.
- if you are taking certain medicines (called anticoagulants) to avoid an excess of blood clotting (see also “Other medicines and Piperacillin/Tazobactam Teva” in this leaflet) or any unexpected bleeding occurs during the treatment. In this case, you should inform your doctor or other healthcare professional immediately.
- if you develop convulsions during the treatment. In this case, you should inform your doctor or other healthcare professional.
- if you think you developed a new or worsening infection. In this case, you should inform your doctor or other healthcare professional.
- if you are on a low sodium diet.

### **Children below 2 years**

Piperacillin/tazobactam is not recommended for use in children below the age of 2 years due to insufficient data on safety and effectiveness.

### **Other medicines and Piperacillin/Tazobactam Teva**

Tell your doctor or pharmacist if you are taking, have recently taken or might take any other medicines. Some medicines may interact with piperacillin and tazobactam.

These include:

- medicine for gout (probenecid). This can increase the time it takes for piperacillin and tazobactam to leave your body.
- medicines to thin your blood or to treat blood clots (e.g. heparin, warfarin or acetylsalicylic acid).
- medicines used to relax your muscles during surgery. Tell your doctor if you are going to have a general anaesthetic.
- methotrexate (medicine used to treat cancer, arthritis or psoriasis). Piperacillin and tazobactam can increase the time it takes for methotrexate to leave your body.
- medicines that reduce the level of potassium in your blood (e.g. tablets enhancing urination or some medicines for cancer).
- medicines containing the other antibiotics tobramycin, gentamycin or vancomycin. Tell your doctor if you have kidney problems.

### *Effect on laboratory tests*

Tell the doctor or laboratory staff that you are taking Piperacillin/ Tazobactam Teva if you have to provide a blood or urine sample.

### **Pregnancy, breast-feeding and fertility**

If you are pregnant or breast-feeding, think you may be pregnant or are planning to have a baby, ask your doctor or other healthcare professional for advice before receiving this medicine.

Your doctor will decide if Piperacillin/ Tazobactam Teva is right for you.

Piperacillin and tazobactam can pass to a baby in the womb or through breast milk. If you are breast-feeding, your doctor will decide if Piperacillin/Tazobactam Teva is right for you.

### **Driving and using machines**

The use of Piperacillin/Tazobactam Teva is not expected to affect the ability to drive or use machines.

### **Piperacillin/Tazobactam Teva contains sodium**

Piperacillin/Tazobactam Teva 4 g/500 mg contains 9.4 mmol (216 mg) of sodium.

This should be taken into consideration if you are on a controlled-sodium diet.

### **3. How to use Piperacillin/Tazobactam Teva**

Your doctor or nurse will give this medicine through an infusion (a drip for 30 minutes) into one of your veins.

#### **Dosage**

The dose of medicine given to you depends on what you are being treated for, your age, and whether or not you have kidney problems.

#### **Adults and adolescents above 12 years of age**

The usual dose is 4 g piperacillin/500 mg tazobactam given every 6-8 hours, which is given into one of your veins (directly into the blood stream).

#### **Children aged 2 to 12 years**

The usual dose for children with abdominal infections is 100 mg/12.5 mg/kg of body weight of piperacillin / tazobactam given every 8 hours into one of your veins (directly into the blood stream). The usual dose for children with low white blood cell counts is 80 mg/10 mg/kg of body weight of piperacillin / tazobactam given every 6 hours into one of your veins (directly into the blood stream).

Your doctor will calculate the dose depending on your child's weight but each individual dose will not exceed the maximum 4 g/500 mg of Piperacillin/Tazobactam Teva.

You will be given Piperacillin/Tazobactam Teva until the sign of infection has gone completely (5 to 14 days).

#### **Patients with kidney problems**

Your doctor may need to reduce the dose of Piperacillin/Tazobactam Teva or how often you are given it. Your doctor may also want to test your blood to make sure that your treatment is at the right dose, especially if you have to take this medicine for a long time.

#### **If you are given more Piperacillin/Tazobactam Teva than you should**

As you will be given Piperacillin/Tazobactam Teva by a doctor or other healthcare professional, you are unlikely to be given the wrong dose. However, if you experience side effects, such as convulsions, or think you have been given too much, tell your doctor immediately.

#### **If you miss a dose of Piperacillin/Tazobactam Teva**

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

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

### **4. Possible side effects**

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

See a doctor immediately if you experience any of these potentially serious side effects of Piperacillin/Tazobactam Teva:

The serious side effects (with frequency in brackets) of Piperacillin/Tazobactam Teva are:

- serious skin rashes [Stevens-Johnson syndrome, dermatitis bullous (Not known), dermatitis exfoliative (Not known), toxic epidermal necrolysis (Rare)] appearing initially as reddish target-like spots or circular patches often with central blisters on the trunk. Additional signs include ulcers in the mouth, throat, nose, extremities, genitals and conjunctivitis (red and swollen eyes). The rash may progress to widespread blistering or peeling of the skin and potentially may be life threatening.

- severe potentially fatal allergic condition (drug reaction with eosinophilia and systemic symptoms) that can involve the skin and most importantly other organs under the skin such as the kidney and the liver
- a skin condition (acute generalised exanthematous pustulosis) accompanied by fever, which consists of numerous tiny fluid filled blisters contained within large areas of swollen and reddened skin
- swelling of the face, lips, tongue or other parts of the body (Not known)
- shortness of breath, wheezing or trouble breathing (Not known)
- severe rash or hives (Uncommon), itching or rash on the skin (Common)
- yellowing of the eyes or skin (Not known)
- damage to blood cells [the signs include: being breathless when you do not expect it, red or brown urine (Not known), nosebleeds (Rare) and small spot bruising (Not known)], severe decrease in white blood cells (Rare)
- severe or persistent diarrhoea accompanied by a fever or weakness (Rare).

If any of **the following** side effects gets serious, or if you notice any side effect not listed in this leaflet, please tell your doctor or other healthcare professional.

**Very common side effects** (may affect more than 1 in 10 people):

- diarrhoea.

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

- yeast infection
- decrease in platelets, decrease of red blood cells or blood pigment / haemoglobin, abnormal lab test (positive direct Coombs), prolonged blood clotting time (activated partial thromboplastin time prolonged)
- decrease in blood protein
- headache, sleeplessness
- abdominal pain, vomiting, nausea, constipation, upset stomach
- increase in blood liver enzymes
- skin rash, itching
- abnormal kidney blood tests
- fever, injection site reaction.

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

- decrease in white blood cells (leukopenia), prolonged blood clotting time (prothrombin time prolonged)
- decreased blood potassium, decreased blood sugar
- low blood pressure, inflammation of the veins (felt as tenderness or redness in the affected area), reddening of skin
- increase of a blood pigment breakdown product (bilirubin)
- skin reactions with redness, nettle rash, formation of skin lesions
- joint and muscle pain
- chills.

**Rare side effects** (may affect up to 1 in 1,000 people):

- severe decrease in white blood cells (agranulocytosis), bleeding of the nose
- serious infection of the colon
- detachment of the top layer of the skin all over the body (toxic epidermal necrolysis)
- inflammation of the mucous lining of the mouth.

**Not known side effects** (cannot be estimated from the available data):

- severe decrease of red blood cells, white blood cells and platelets (pancytopenia), decrease in white blood cells (neutropenia), decrease of red blood cells due to premature breakdown or degradation, small spot bruising, bleeding time prolonged, increase of platelets, increase of a specific type of white blood cells (eosinophilia)
- allergic reaction and severe allergic reaction

- inflammation of the liver, yellow staining of the skin or whites of the eyes
- serious body wide allergic reaction with skin and mucous lining rashes, blistering and various skin eruptions (Stevens-Johnson Syndrome), severe allergic condition involving skin and other organs such as the kidney and the liver (drug reaction with eosinophilia and systemic symptoms), numerous tiny fluid filled blisters contained within large areas of swollen and reddened skin accompanied by fever (acute generalised exanthematous pustulosis), skin reactions with blistering (dermatitis bullous)
- poor kidney functions and kidney problems
- a form of lung disease where eosinophils (a form of white blood cell) appear in the lung in increased numbers.

Piperacillin therapy has been associated with an increased incidence of fever and rash in cystic fibrosis patients.

### **Reporting of side effects**

If you get any side effects, talk to your doctor, pharmacist or nurse. This includes any possible side effects not listed in this leaflet. You can also report side effects directly via HPRA Pharmacovigilance, Earlsfort Terrace, IRL - Dublin 2; Tel: +353 1 6764971; Fax: +353 1 6762517. Website: [www.hpra.ie](http://www.hpra.ie); E-mail: [medsafety@hpra.ie](mailto:medsafety@hpra.ie). By reporting side effects you can help provide more information on the safety of this medicine.

### **5. How to store Piperacillin/Tazobactam Teva**

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 the vials after “EXP”. The expiry date refers to the last day of that month.

Do not use this medicine if you notice any visible signs of deterioration.

#### *Unopened vials:*

This medicinal product does not require any special storage conditions.

#### *Reconstituted solution*

Chemical and physical in use stability has been demonstrated for 8 hours when stored below 25°C or for 48 hours when stored in a refrigerator (2-8°C).

#### *Diluted infusion solution:*

After reconstitution, chemical and physical in-use stability of diluted infusion solutions has been demonstrated for 24 hours at 25°C and for 48 hours when stored in a refrigerator at 2-8°C, when reconstituted using one of the compatible solvents for further dilution of the reconstituted solution at the suggested dilution volumes (see section 6.6).

From a microbiological point of view, the product should be used immediately. 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 when stored in a refrigerator (2-8°C), unless reconstitution/dilution has taken place in controlled and validated aseptic conditions.

For single use only. Discard any unused solution.

Do not throw away any medicines via wastewater or household waste. Ask your pharmacist how to throw away medicines you no longer use. These measures will help to protect the environment.

### **6. Contents of the pack and other information**

#### **What Piperacillin/Tazobactam Teva contains**

- The active substances are piperacillin and tazobactam.

Each vial contains 4 g piperacillin (as sodium salt) and 500 mg tazobactam (as sodium salt).

**What Piperacillin/Tazobactam Teva looks like and contents of the pack**

Piperacillin/Tazobactam Teva 4 g/500 mg is a white to off-white powder supplied in a vial.

Pack sizes: 1 vial, 10 vials.

Not all pack sizes may be marketed.

**Marketing Authorisation Holder and Manufacturer**

**Marketing Authorisation Holder**

Teva Pharma B.V.

Swensweg 5

2031GA Haarlem

The Netherlands

**Manufacturer**

Reig Jofre S.A,

C/Jarama,

S/N Polígono Industrial,

45007 Toledo,

Spain.

**This medicinal product is authorised in the Member States of the EEA under the following names:**

**The Netherlands:** Piperacilline/Tazobactam 4 g/500 mg PCH, poeder voor oplossing voor infusie

**Estonia:** Piperacillin/Tazobactam Teva 4000 mg/500 mg

**Germany:** Piperacillin/Tazobactam-Teva 4g/0.5g Pulver zur Herstellung einer Infusionslösung

**Hungary:** Zytobakt 4 g/0,5 g por oldatos infúzióhoz

**Ireland:** Piperacillin/Tazobactam Teva 4 g/500 mg Powder for Solution for Infusion

**Latvia:** Piperacillin/Tazobactam Teva 4000 mg/500 mg pulveris infūziju šķīduma pagatavošanai

**Lithuania:** Piperacillin/Tazobactam Teva 4000 mg/500 mg milteliai infuziniam tirpalui

**Slovenia:** Piperacilin/tazobaktam Teva 4 g/0,5 g prašek za raztopino za infundiranje

**This leaflet was last revised in 11/2017.**

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**The following information is intended for healthcare professionals only:**

**Incompatibilities**

**Lactated Ringer's solution is not compatible with Piperacillin/Tazobactam Teva.**

Whenever Piperacillin/Tazobactam Teva is used concurrently with another antibiotic (e.g. aminoglycosides), the substances must be administered separately. The mixing of beta-lactam antibiotics with aminoglycoside, *in vitro*, can result in substantial inactivation of the aminoglycoside.

Piperacillin/Tazobactam Teva should not be mixed with other substances in a syringe or infusion bottle since compatibility has not been established.

Because of chemical instability, piperacillin/tazobactam should not be used with solutions containing only sodium bicarbonate.

Piperacillin/Tazobactam Teva should not be added to blood products or albumin hydrolysates.

### ***Reconstitution Directions***

#### *Preparation of a reconstituted solution*

Compatible Diluents for reconstitution:

- Sterile water for injection
- Sodium Chloride 9 mg/ml (0.9%) for injection

1 vial of Piperacillin/Tazobactam Teva 4 g/500 mg should be reconstituted with 20 ml of one of the solvents listed above.

#### *Preparation of an intravenous infusion*

The reconstituted solution should be further diluted to the desired volume (e.g. 50 to 150 ml) with one of the compatible diluents for intravenous use listed below:

- Sterile water for injection (with a maximum recommended volume per dose of 50 ml)
- Sodium Chloride 9 mg/ml (0.9%) solution for infusion
- Glucose 50 mg/ml (5%) in water for injection
- Glucose 50 mg/ml (5%) in sodium chloride 9 mg/ml (0.9%) solution
- Dextrane 60 mg/ml (6%) in sodium chloride 9 mg/ml (0.9%) solution.

For single use only. Discard any unused solution.

The reconstitution/dilution is to be made under aseptic conditions.

To ensure full reconstitution of the contents, once the solvent has been added, the vial should be inverted and shaken until the powder has completely dissolved.

The solution is to be inspected visually for particulate matter and discoloration prior to administration. The solution should only be used if it is clear and free from particles.