

Package leaflet: Information for the Patient

Ceftriaxone 250 mg, 1g, 2g Powder for Solution for Injection or Infusion Ceftriaxone (as Ceftriaxone Sodium)

Read all of this leaflet carefully before you are given 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.
- This medicine has been prescribed for you only. Do not pass it on to others. It may harm them, even if their signs of illness are the same as yours.
- 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 Ceftriaxone injection is and what it is used for
2. What you need to know before you are given Ceftriaxone injection
3. How Ceftriaxone injection is given
4. Possible side effects
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The name of your medicine is “Ceftriaxone Powder for Solution for Injection or Infusion” (referred to as Ceftriaxone injection throughout this leaflet).

1. What Ceftriaxone injection is and what it is used for

Ceftriaxone is an antibiotic given to adults and children (including newborn babies). It works by killing bacteria that cause infections. It belongs to a group of medicines called cephalosporins. Ceftriaxone injection is used to treat infections of:

- the brain (meningitis).
- the lungs.
- the middle ear.
- the abdomen and abdominal wall (peritonitis).
- the urinary tract and kidneys.
- bones and joints.
- the skin or soft tissues.
- the blood.
- the heart.

It can be given:

- to treat specific sexually transmitted infections (gonorrhoea and syphilis).
- to treat patients with low white blood cell counts (neutropenia) who have fever due to bacterial infection.
- to treat infections of the chest in adults with chronic bronchitis.
- to treat Lyme disease (caused by tick bites) in adults and children including newborn babies from 15 days of age.
- to prevent infections during surgery.

2. What you need to know before you are given Ceftriaxone injection

You must not be given Ceftriaxone injection if:

- You are allergic to ceftriaxone.
- You have had a sudden or severe allergic reaction to penicillin or similar antibiotics (such as cephalosporins, carbapenems or monobactams). The signs include sudden swelling of the throat or face

which might make it difficult to breathe or swallow, sudden swelling of the hands, feet and ankles, chest pain and a severe rash that develops quickly.

- You are allergic to lidocaine and you are to be given Ceftriaxone injection as an injection into a muscle.

Ceftriaxone injection must not be given to babies if:

- The baby is premature.
- The baby is newborn (up to 28 days of age) and has certain blood problems or jaundice (yellowing of the skin or the whites of the eyes) or is to be given a product that contains calcium into their vein.

Warnings and precautions

Talk to your doctor or pharmacist or nurse before you are given Ceftriaxone injection if:

- You have recently received or are about to receive products that contain calcium.
- You have recently had diarrhoea after having an antibiotic medicine.
- You have ever had problems with your gut, in particular colitis (inflammation of the bowel).
- You have liver or kidney problems (see section 4).
- You have gall stones or kidney stones.
- You have other illnesses, such as haemolytic anaemia (a reduction in your red blood cells that may make your skin pale yellow and cause weakness or breathlessness).
- You are on a low sodium diet.
- You experience or have previously experienced a combination of any of the following symptoms: rash, red skin, blistering of the lips, eyes and mouth, skin peeling, high fever, flu-like symptoms, increased levels of liver enzymes seen in blood tests and an increase in a type of white blood cell (eosinophilia) and enlarged lymph nodes (signs of severe skin reactions, see also section 4 “Possible side effects”).

If you need a blood or urine test

If you are given Ceftriaxone for a long time, you may need to have regular blood tests. Ceftriaxone can affect the results of urine tests for sugar and a blood test known as the Coombs test. If you are having tests:

- Tell the person taking the sample that you have been given Ceftriaxone.

If you are diabetic or need to have your blood glucose level monitored you should not use certain blood glucose monitoring systems which may estimate blood glucose incorrectly while you are receiving ceftriaxone. If you use such systems check the instructions for use and tell your doctor, pharmacist or nurse. Alternative testing methods should be used if necessary.

Children

Talk to your doctor or pharmacist or nurse before your child is administered Ceftriaxone if:

- He/she has recently been given or is to be given a product that contains calcium into their vein.

Other medicines and Ceftriaxone

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

In particular, tell your doctor or pharmacist if you are taking any of the following medicines:

- A type of antibiotic called an aminoglycoside.
- An antibiotic called chloramphenicol (used to treat infections, particularly of the eyes).

Pregnancy and 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 for advice before taking this medicine. The doctor will consider the benefit of treating you with Ceftriaxone against the risk to your baby.

Driving and using machines

Ceftriaxone can cause dizziness. If you feel dizzy, do not drive or use any tools or machines. Talk to your doctor if you experience these symptoms.

Ceftriaxone injection contains sodium

This medicine contains approximately 21 mg (0.9 mmol for 250mg vial), 83 mg (3.6 mmol for 1g vial) or 166 mg (7.2 mmol for 2g vial) of sodium. This should be taken into consideration by patients on a controlled sodium diet. Tell your doctor or nurse if you are on a low sodium diet.

3. How Ceftriaxone injection is given

Ceftriaxone injection is usually given by a doctor or nurse. It can be given as a drip (intravenous infusion) or as an injection directly into a vein or into a muscle. Ceftriaxone injection is made up by the doctor, pharmacist or nurse and will not be mixed with or given to you at the same time as calcium-containing injections.

The usual dose

Your doctor will decide the correct dose of Ceftriaxone for you. The dose will depend on the severity and type of infection; whether you are on any other antibiotics; your weight and age; how well your kidneys and liver are working. The number of days or weeks that you are given Ceftriaxone depends on what sort of infection you have.

Adults, older people and children aged 12 years and over with a body weight greater than or equal to 50 kilograms (kg):

1 to 2 g once a day depending on the severity and type of infection. If you have a severe infection, your doctor will give you a higher dose (up to 4 g once a day). If your daily dose is higher than 2 g, you may receive it as a single dose once a day or as two separate doses.

Newborn babies, infants and children aged 15 days to 12 years with a body weight of less than 50 kg:

50-80 mg Ceftriaxone for each kg of the child's body weight once a day depending on the severity and type of infection. If you have a severe infection, your doctor will give you a higher dose up to 100 mg for each kg of body weight to a maximum of 4 g once a day. If your daily dose is higher than 2 g, you may receive it as a single dose once a day or as two separate doses.

Children with a body weight of 50 kg or more should be given the usual adult dose.

Newborn babies (0-14 days)

20 – 50 mg Ceftriaxone for each kg of the child's body weight once a day depending on the severity and type of infection. The maximum daily dose is not to be more than 50 mg for each kg of the baby's weight.

People with liver and kidney problems

You may be given a different dose to the usual dose. Your doctor will decide how much Ceftriaxone you will need and will check you closely depending on the severity of the liver and kidney disease.

If you are given more Ceftriaxone than you should

If you accidentally receive more than your prescribed dose, contact your doctor or nearest hospital straight away.

If you forget to use Ceftriaxone injection

If you miss an injection, you should have it as soon as possible. However, if it is almost time for your next injection, skip the missed injection. Do not take a double dose (two injections at the same time) to make up for a missed dose.

If you stop using Ceftriaxone injection

Do not stop taking Ceftriaxone unless your doctor tells you to. 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.

The following side effects may happen with this medicine:

Severe allergic reactions (not known, frequency cannot be estimated from the available data)

If you have a severe allergic reaction, tell a doctor straight away. The signs may include:

- Sudden swelling of the face, throat, lips or mouth. This can make it difficult to breathe or swallow.
- Sudden swelling of the hands, feet and ankles.
- Chest pain in the context of allergic reactions, which may be a symptom of allergy triggered cardiac infarction (Kounis syndrome).

Severe skin reactions (not known, frequency cannot be estimated from the available data)

If you get a severe skin reaction, tell a doctor straight away.

The signs may include:

- A severe rash that develops quickly, with blisters or peeling of the skin and possibly blisters in the mouth (Stevens-Johnson syndrome and toxic epidermal necrolysis which are also known as SJS and TEN).
- A combination of any of the following symptoms: widespread rash, high body temperature, liver enzyme elevations, blood abnormalities (eosinophilia), enlarged lymph nodes and other body organs involvement (Drug Reaction with Eosinophilia and Systemic Symptoms which is also known as DRESS or drug hypersensitivity syndrome).
- Jarisch-Herxheimer reaction which causes fever, chills, headache, muscle pain, and skin rash that is usually self-limiting. This occurs shortly after starting Ceftriaxone treatment for infections with spirochete such as Lyme disease.

Treatment with ceftriaxone, particularly in elderly patients with serious kidney or nervous system problems may rarely cause decreased consciousness, abnormal movements, agitation and convulsions.

Other possible side effects:

Common (may affect up to 1 in 10 people)

- Abnormalities with your white blood cells (such as a decrease of leucocytes and an increase of eosinophils) and platelets (decrease of thrombocytes).
- Loose stools or diarrhoea.
- Changes in the results of blood tests for liver functions.
- Rash.

Uncommon (may affect up to 1 in 100 people)

- Fungal infections (for example, thrush).
- A decrease in the number of white blood cells (granulocytopenia).
- Reduction in number of red blood cells (anaemia).
- Problems with the way your blood clots. The signs may include bruising easily and pain and swelling of your joints.
- Headache.
- Dizziness.
- Feeling sick or being sick.
- Pruritis (itching).
- Pain or a burning feeling along the vein where Ceftriaxone has been given.
- Pain where the injection was given.
- A high temperature (fever).
- Abnormal kidney function test (blood creatinine increased).

Rare (may affect up to 1 in 1,000 people)

- Inflammation of the large bowel (colon). The signs include diarrhoea, usually with blood and mucus, stomach pain and fever.
- Difficulty in breathing (bronchospasm).
- A lumpy rash (hives) that may cover a lot of your body, feeling itchy and swelling.
- Blood or sugar in your urine.

- Oedema (fluid build-up).
- Shivering.

Not known (Frequency cannot be estimated from the available data)

- A secondary infection that may not respond to the antibiotic previously prescribed.
- Form of anaemia where red blood cells are destroyed (haemolytic anaemia).
- Severe decrease in white blood cells (agranulocytosis).
- Convulsions.
- Vertigo (spinning sensation).
- Inflammation of the pancreas (pancreatitis). The signs include severe pain in the stomach which spreads to your back.
- Inflammation of the mucus lining of the mouth (stomatitis).
- Inflammation of the tongue (glossitis). The signs include swelling, redness and soreness of the tongue.
- Problems with your gallbladder and/or liver, which may cause pain, nausea, vomiting, yellowing of the skin, itching, unusually dark urine and clay-coloured stools.
- A neurological condition that may occur in neonates with severe jaundice (kernicterus).
- Kidney problems caused by deposits of calcium ceftriaxone.
- There may be pain when passing water (urine) or low output of urine.
- A false positive result in a Coombs' test (a test for some blood problems).
- A false positive result for galactosaemia (an abnormal build up of the sugar galactose).
- Ceftriaxone may interfere with some types of blood glucose tests - please check with your doctor.

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 the Yellow Card Scheme, Website: 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 Ceftriaxone injection

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

Do not use Ceftriaxone injection after the expiry date which is printed on the label and carton after EXP. The expiry date refers to the last day of that month.

Do not store above 25°C. Your doctor, pharmacist or nurse will know how to store Ceftriaxone Injection properly.

6. Contents of the pack and other information

What Ceftriaxone injection contains

Each vial contains 250mg, 1g, or 2g ceftriaxone (as ceftriaxone sodium).
The vials contain no other ingredients.

What Ceftriaxone injection looks like and contents of the pack

Ceftriaxone injection is a white or almost white powder in a glass vial.

Each carton contains 1, 5, 10, 20, 50 or 100 vials.

Not all pack sizes may be marketed.

Marketing Authorisation Holder

Istituto Biochimico Italiano G. Lorenzini S.p.A., Via Fossignano 2, 04011 Aprilia (LT), Italy

Manufacturer

Anfarm Hellas, Schimatari Viotias, 32009 Schimatari, Greece;

or

ACS DOBFAR S.p.A., Nucleo Industriale S. Atto, S. Nicolò a Tordino, 64100 Teramo, Italy

or

ACS DOBFAR S.p.A.
Via A. Fleming, 2,
37135 Verona - Italy

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INFORMATION FOR THE HEALTHCARE PROFESSIONAL

**The following information is intended for medical or healthcare professionals only.
For further information, refer to the Summary of Product Characteristics.**

Instructions for use and handling:

Preparation of solutions for injection and infusion:

	Powder	Reconstitution solvent	Volume to be added	Approx. displacement volume
Intravenous injection	250 mg	Water for Injections BP	2.5 ml	0.2 ml
	1 g	Water for Injections BP	10 ml	0.6 ml
Intramuscular injection	250 mg	1.0% Lidocaine Hydrochloride BP	1.0 ml	0.06 ml
	1 g	1.0% Lidocaine Hydrochloride BP	3.5 ml	0.66 ml
Intravenous infusion	2 g	Glucose Injection BP 5% or 10%, 0.9% Sodium Chloride Injection BP, Sodium Chloride and Glucose Injection BP (0.45% Sodium Chloride and 2.5% Glucose), Dextran 6% in Glucose Injection BP 5%.	40.0 ml	1.2 ml

The use of freshly prepared solutions is recommended. For storage conditions of the reconstituted medicinal product, see section 6.3 of the Summary of Product Characteristics.

Ceftriaxone should not be mixed in the same syringe with any drug other than 1% Lidocaine Hydrochloride solution (for intramuscular injection only). The infusion line should be flushed after each administration.