PACKAGE LEAFLET: INFORMATION FOR THE PATIENT

hameln

Clarithromycin 500 mg powder for concentrate for solution for infusion

clarithromycin

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 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 CLARITHROMYCIN IS AND WHAT IT IS USED FOR

Clarithromycin contains the active ingredient clarithromycin. Clarithromycin belongs to a group of medicines called macrolide antibiotics. Antibiotics stop the growth of bacteria (bugs) that cause infections.

Clarithromycin is used whenever an intravenous (injection into the vein) antibiotic is required to treat severe infections or, alternatively, if a patient cannot swallow tablets.

It is used to treat infections caused by bacteria such as:

1. A flare-up of chronic bronchitis and infection of the lungs (pneumonia)
2. Severe infection of the sinuses (sinusitis), throat (pharyngitis) and tonsils (tonsillitis)
3. Skin and tissue infections

Clarithromycin is used in adults and children 12 years and older.

2. WHAT YOU NEED TO KNOW BEFORE YOU ARE GIVEN CLARITHROMYCIN

Clarithromycin must not be given:
- if you are allergic to clarithromycin, other macrolide antibiotics such as erythromycin or azithromycin, or any of the other ingredients of this medicine (listed in section 6).
- if you are taking medicines called ergot alkaloid tablets (e.g. ergotamine or dihydroergotamine) or use ergotamine inhalers for migraine.
- if you are taking medicines called terfenadine or astemizole (widely taken for hay fever or allergies) or cisapride or domperidone (for stomach disorders) or pimozide (for mental health problems) or ivabradine (for heart problems) as combining these medicines can sometimes cause serious disturbances in heart rhythm. Consult your doctor for advice on alternative medicines.
- if you are taking other medicines which are known to cause serious disturbances in heart rhythm.
- if you are taking lovastatin or simvastatin (HMG-CoA reductase inhibitors, commonly known as statins, used to lower levels of cholesterol (a type of fat) in the blood).
- if you are taking oral midazolam (a sedative).
- if you have abnormally low levels of potassium or magnesium in your blood (hypokalaemia or hypomagnesaemia).
- if you have severe liver disease with kidney disease.
- if you or someone in your family has a history of heart rhythm disorders (ventricular cardiac arrhythmia, including torsades de pointes) or abnormality of electrocardiogram (ECG, electrical recording of the heart) called “long QT syndrome”.
- if you are taking medicines called ticagrelor or ranolazine (for heart attack, chest pain or angina).
- if you are taking colchicine (usually taken for gout).
- if you are taking a medicine containing lomitapide.

Warnings and precautions

Talk to your doctor or pharmacist before being given Clarithromycin:
- if you have heart problems (e.g. heart disease, heart failure, an unusually slow heart rate)
- if you have any liver or kidney problems
- if you have, or are prone to, fungal infections (e.g. thrush)
- if you are pregnant or breast feeding
- if you need to have intravenous or oromucosal (absorbed in the mouth) midazolam

If you develop severe or prolonged diarrhoea during or after receiving Clarithromycin, tell your doctor immediately, as this could be a symptom of more serious conditions such as pseudomembranous colitis or clostridium difficile associated diarrhoea.

If you develop any symptoms of liver dysfunction such as anorexia (loss of appetite), yellowing of the skin or whites of the eyes, dark urine, itching or tender abdomen, tell your doctor immediately.

Long term use of Clarithromycin may lead to infection with resistant bacteria and fungi.

Children

Clarithromycin is not suitable for use in children under 12 years of age.

Other medicines and Clarithromycin

Tell your doctor or pharmacist if you are taking, have recently taken or might take any other medicines. Your dose may need to be changed or you may need to have regular tests performed.

Clarithromycin must not be given with ergot alkaloids, astemizole, terfenadine, cisapride, domperidone, ivabradine, pimozide, ticagrelor, ranolazine, colchicine, some medicines for treating high cholesterol and medicines that are known to cause serious disturbances in heart rhythm.

Especially, tell your doctor if you are taking the following medicines:
- digoxin, quinidine or disopyramide (for heart problems)
- ibrutinib (for cancer treatment)
- warfarin or any other anticoagulant e.g. dabigatran, rivaroxaban, apixaban (for thinning the blood)
- omeprazole (used for the treatment of indigestion and stomach ulcers) unless your doctor has prescribed it for you to treat Helicobacter pylori infection associated with duodenal ulcer
- carbamazepine, valproate, phenobarbital or phenytoin (for epilepsy)
- atorvastatin, rosuvastatin (HMG-CoA reductase inhibitors, commonly known as statins, and used to lower levels of cholesterol (a type of fat) in the blood). Statins can cause rhabdomyolysis (a condition which causes the breakdown of muscle tissue which can result in kidney damage) and signs of myopathy (muscle pain or muscle weakness) should be monitored.
- nateglinide, pioglitazone, repaglinide, rosiglitazone or insulin (used to lower blood glucose levels)
- gliclazide or glimepiride (sulphonylureas used in the treatment of type II diabetes)
- theophylline (used in patients with breathing difficulties such as asthma)
- triazolam, alprazolam or intravenous or oromucosal midazolam (sedatives)
- cilostazol (for poor circulation)
- methylprednisolone (a corticosteroid)
- vinblastine (for treatment of cancer)
- ciclosporin, sirolimus and tacrolimus (immune suppressants)
- etravirine, efavirenz, nevirapine, ritonavir, zidovudine, atazanavir, saquinavir (anti-viral medicines used in the treatment of HIV)
- rifabutin, rifampicin, rifapentine, fluconazole, itraconazole (used in the treatment of certain bacterial infections)
- tolterodine (for overactive bladder)
- verapamil, amlodipine, diltiazem (for high blood pressure)
- sildenafil, vardenafil and tadalafil (for impotence in adult males or for use in pulmonary arterial hypertension (high blood pressure in the blood vessels of the lung))
- St John’s Wort (a herbal product used to treat depression)
- quetiapine or other antipsychotic medicines
- other macrolide medicines
- lincomycin and clindamycin (lincosamides – a type of antibiotic)
- hydroxychloroquine or chloroquine (used to treat conditions including rheumatoid arthritis, or to treat or prevent malaria). Taking these medicines at the same time as clarithromycin may increase the chance of you getting side effects that affect your heart.

Please tell your doctor if you are taking oral contraceptive pills and diarrhoea or vomiting occurs, as you may need to take extra contraceptive precautions such as using a condom.

Pregnancy and breast-feeding

If you are pregnant or breast-feeding, think you may be pregnant or are planning to have a baby, ask your doctor or pharmacist for advice before receiving this medicine as the safety of clarithromycin in pregnancy or breast-feeding is not known.

Driving and using machines

Clarithromycin may make you feel dizzy or drowsy. If they affect you in this way do not drive, operate machinery or do anything that requires you to be alert.

Clarithromycin contains sodium

This medicine contains less than 1 mmol sodium (23 mg) per vial, that is to say essentially ‘sodium-free’.

3. HOW CLARITHROMYCIN IS GIVEN

Clarithromycin is prepared by your doctor or nurse by dissolving the powder in the vial in sterile water. The solution obtained is added to a larger volume of sterile liquid. Clarithromycin is given to you slowly through a needle, into your vein over a period of at least an hour.

The recommended dose of Clarithromycin for adults and children over 12 years is 1.0 g per day, split into two doses, for 2 to 5 days. The total time of treatment with clarithromycin should not exceed 14 days. Your doctor will work out the correct dose for you.

Use in children

Children under 12 years should not be given Clarithromycin. Your doctor will prescribe another suitable medicine for your child.

If a child accidentally swallows some of this medicine, seek medical advice urgently.

Patients with renal impairment

The dosage of Clarithromycin should be reduced to half of the normal recommended.

If you are given more Clarithromycin than you should

As Clarithromycin is given to you by a doctor, an overdose is unlikely but symptoms may include vomiting and stomach pains.

4. POSSIBLE SIDE EFFECTS

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

If you suffer from any of the following at any time during your treatment **tell your doctor immediately** as your treatment may need to be stopped:
- severe or prolonged diarrhoea, which may have blood or mucus in it. Diarrhoea may occur over two months after treatment with clarithromycin, in which case you should still contact your doctor.

The following information is intended for healthcare professionals only: hameln

Clarithromycin 500 mg powder for concentrate for solution for infusion

Please refer to the Summary of Product Characteristics for full prescribing and other information.

For single use only.

Prepare all solutions using aseptic techniques.

Instruction of how to reconstitute and dilute Clarithromycin

Step 1 - Reconstitution

Add 10 ml sterilised water for injections into the vial and shake until the vial contents have dissolved. A solution with a concentration of 50 mg/ml is obtained. The reconstitution time is not more than 7 minutes and the solution is clear to slightly opalescent, colourless to slightly yellow. Use only water for injections, as other diluents may cause precipitation during reconstitution. Do not use diluents containing preservatives or inorganic salts.

Use within 24 hours (at 25°C) or within 48 hours if stored at 2-8°C.

Step 2 - Dilution

Add the reconstituted solution from Step 1 to 250 ml of a suitable intravenous diluent prior to infusion (see below). This provides a 2 mg/ml final solution for infusion. The solution after dilution is clear to slightly opalescent, colourless to slightly yellow. Use within 6 hours (at 25°C) or within 48 hours if stored at 2-8°C.

IMPORTANT: BOTH DILUENT STEPS (1 and 2) SHOULD BE COMPLETED BEFORE USE.

Recommended diluents for step 2

0.9% sodium chloride, 5% dextrose, 5% dextrose in 0.3% sodium chloride, 5% dextrose in 0.45% sodium chloride, 5% dextrose in Ringer’s lactate solution and Ringer’s lactate solution.

Method of administration

Clarithromycin should not be given as a bolus or an intramuscular injection.

Clarithromycin should be administered into one of the larger proximal veins as an IV infusion over 60 minutes, using a solution concentration of about 2 mg/ml.

- a rash, difficulty breathing, fainting or swelling of the face, tongue, lips, eyes and throat. This is a sign that you may have developed an allergic reaction.
- yellowing of the skin (jaundice), skin irritation, pale stools, dark urine, tender abdomen or loss of appetite. These may be signs that your liver may have inflammation and not be working properly.
- severe skin reactions such as blistering of the skin, mouth, lips, eyes and genitals (symptoms of a rare allergic reaction called Stevens-Johnson syndrome/toxic epidermal necrolysis).
- a red, scaly rash with bumps under the skin and blisters (symptoms of exanthematous pustulosis). The frequency of this side effect is not known (cannot be estimated from the available data).
- rare allergic skin reactions which cause severe illness with ulceration of the mouth, lips and skin which causes severe illness with rash, fever and inflammation of internal organs (DRESS).
- muscle pain or weakness known as rhabdomyolysis (a condition which causes the breakdown of muscle tissue which can result in kidney damage).

Common side effects (may affect up to 1 in 10 people) include:
- inflammation, tenderness or pain at the site of the injection
- difficulty sleeping
- changes in sense of taste
- headache
- widening of blood vessels
- stomach problems such as feeling sick, vomiting, stomach pain, indigestion, diarrhoea
- abnormal liver function blood tests
- increased sweating

Uncommon side effects (may affect up to 1 in 100 people) include:
- high temperature
- swelling, redness or itchiness of the skin
- oral or vaginal 'thrush' (a fungal infection)
- inflammation of the stomach and intestines
- decrease of the levels of blood platelets (blood platelets help stop bleeding)
- decrease in white blood cells (leukopenia)
- decrease in neutrophils (neutropenia)
- allergic reaction
- stiffness
- chills
- increase of eosinophils (white blood cells involved in immunity)
- exaggerated immune response to a foreign agent
- lack or loss of appetite
- anxiety, nervousness
- drowsiness, tiredness, dizziness or shaking
- involuntary muscle movements
- vertigo
- ringing in the ears or hearing loss
- chest pain or changes in heart rhythm such as palpitations or an irregular heartbeat
- asthma: lung disease associated with tightening of air passages, making breathing difficult
- nose bleed
- blood clot that causes sudden blockage in a lung artery (pulmonary embolism)
- inflammation of the lining of the gullet (oesophagus) and lining of the stomach
- anal pain
- bloating, constipation, wind, burping
- dry mouth
- situation where the bile (fluid made by the liver and stored in the gallbladder) cannot flow from the gallbladder to the duodenum (cholestasis)
- inflammation of the skin characterized by the presence of the bullae which are filled with fluid, itchy and painful rash
- muscle spasms, muscle pain or loss of muscle tissue. If you suffer from myasthenia gravis (a condition in which the muscles become weak and tire easily), clarithromycin may worsen these symptoms.
- raised abnormal kidney and liver function blood test and raised blood tests
- feeling weak, tired and having no energy

Not known side effects (frequency cannot be estimated from the available data):
- inflammation of the colon
- bacterial infection of the outer layers of the skin
- swelling of the skin around the face and the throat. This may cause difficulty in breathing (angioedema)
- reduction in the level of certain blood cells (which can make infections more likely or increase the risk of bruising or bleeding)
- confusion, loss of bearings, hallucinations (seeing things), change in sense of reality or panicking, depression, abnormal dreams or nightmares and mania (feeling of elation or over-excitement)
- convulsion (fits)
- paraesthesia, more commonly known as 'pins and needles'
- deafness
- loss of taste or smell or inability to smell properly
- type of heart rhythm disorder (Torsade de pointes, ventricular tachycardia, ventricular fibrillation)
- loss of blood (haemorrhage)
- inflammation of the pancreas
- discolouration of the tongue or teeth
- liver failure, jaundice (yellowing of the skin)
- rare allergic skin reactions such as AGEP (which causes a red, scaly rash with bumps under the skin and blisters), Stevens-Johnson syndrome or toxic epidermal necrolysis (which cause severe illness with ulceration of the mouth, lips and skin), DRESS (which causes severe illness with rash, fever and inflammation of internal organs)
- acne
- muscle disease (myopathy), breakdown of muscle tissue (rhabdomyolysis)
- change in the levels of products produced by the kidney, inflammation of the kidney or an inability of the kidney to function properly (you may notice tiredness, swelling or puffiness in the face, abdomen, thighs or ankles or problems with urination)

Reporting of side effects

If you get any side effects, talk to your doctor or 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.yellowcard.gov.uk 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 CLARITHROMYCIN

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 label or carton after EXP. The expiry date refers to the last day of that month.

This medicinal product does not require any special storage conditions.

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 Clarithromycin contains
- The active substance is clarithromycin. Each vial contains 500 mg clarithromycin as clarithromycin lactobionate.
- The other excipient is sodium hydroxide (pH adjuster).

What Clarithromycin looks like and contents of the pack

Clarithromycin is white to off white cake or powder supplied in 15 ml glass vial (small bottle), sealed with rubber stopper and aluminium cap with plastic flip-off seal.

The following pack sizes are available for Clarithromycin:

1, 5 or 10 vial(s) containing 500 mg of clarithromycin.

Not all pack sizes may be marketed.

Marketing Authorisation Holder

hameln pharma ltd
Nexus, Gloucester Business Park,
Gloucester, GL3 4AG, United Kingdom

Manufacturer

ANFARM HELLAS S.A.,
61st km NAT.RD. Athens-Lamia,
Schimatari Viotias 32009,
Greece

hameln rds s.r.o.,
Horná 36,
900 01 Modra, Slovakia

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

Austria	Clarithromycin-hameln 500 mg Pulver für ein Konzentrat zur Herstellung einer Infusionslösung
Czech Republic	Clarithromycin hameln
Denmark	Clarithromycin hameln Pulver til koncentrat til infusionsvæske, opløsning
Germany	Clarithromycin-hameln 500 mg Pulver für ein Konzentrat zur Herstellung einer Infusionslösung
Hungary	Clarithromycin hameln 500 mg por oldatos infúzióhoz való koncentrátumhoz
Ireland	Clarithromycin 500 mg powder for concentrate for solution for infusion
Poland	Clarithromycin hameln
Slovakia	Clarithromycin hameln 500 mg prášok na koncentrát na infúzny roztok

This medicinal product is authorised in the United Kingdom (Northern Ireland) under the following name:

United Kingdom (Northern Ireland)	Clarithromycin 500 mg powder for concentrate for solution for infusion

This leaflet was last revised in September 2023.

2049/39/23

Do not use

Solution strengths greater than 2 mg/ml (0.2%).

Rapid infusion rates (< 60 minutes).

Failure to observe these precautions may result in pain along the vein.

Storage reconstituted and diluted solution:

Chemical and physical in-use stability has been demonstrated for 24 hours at 25°C / 48 hours at 2-8°C for the reconstituted solution.

Chemical and physical in-use stability has been demonstrated 6 hours at 25°C / 48 hours at 2-8°C for the final infusion solution.

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 at 2 to 8°C, unless reconstitution / dilution has taken place in controlled and validated aseptic conditions.