Package leaflet: Information for the user

Neulastim 6 mg solution for injection in a pre-filled syringe
pegfilgrastim

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.
- This medicine has been prescribed for you only. Do not pass it on to others. It may harm them, even if their symptoms 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 Neulastim is and what it is used for

Neulastim contains the active substance pegfilgrastim. Pegfilgrastim is a protein produced by biotechnology in bacteria called *E. coli*. It belongs to a group of proteins called cytokines, and is very similar to a natural protein (granulocyte-colony stimulating factor) produced by your own body.

Neulastim is used to reduce the duration of neutropenia (low white blood cell count) and the occurrence of febrile neutropenia (low white blood cell count with a fever) which can be caused by the use of cytotoxic chemotherapy (medicines that destroy rapidly growing cells). White blood cells are important as they help your body fight infection. These cells are very sensitive to the effects of chemotherapy which can cause the number of these cells in your body to decrease. If white blood cells fall to a low level there may not be enough left in the body to fight bacteria and you may have an increased risk of infection.

Your doctor has given you Neulastim to encourage your bone marrow (part of the bone which makes blood cells) to produce more white blood cells that help your body fight infection.

2. What you need to know before you use Neulastim

Do not use Neulastim

- if you are allergic to pegfilgrastim, filgrastim, or any of the other ingredients of this medicine.

Warnings and precautions

Talk to your doctor, pharmacist or nurse before using Neulastim:

- if you experience an allergic reaction including weakness, drop in blood pressure, difficulty breathing, swelling of the face (anaphylaxis), redness and flushing, skin rash and areas of the skin that itch.
- if you have an allergy to latex. The needle cap on the pre-filled syringe contains a derivative of latex and may cause severe allergic reactions.
- if you experience a cough, fever and difficulty breathing. This can be a sign of Acute Respiratory Distress Syndrome (ARDS).
- if you have any of the following or combination of the following side effects:
  - swelling or puffiness, which may be associated with passing water less frequently, difficulty breathing, abdominal swelling and feeling of fullness, and a general feeling of tiredness.

  These could be symptoms of a condition called “Capillary Leak Syndrome” which causes blood to leak from the small blood vessels into your body. See section 4.
- if you get left upper abdominal pain or pain at the tip of your shoulder. This may be a sign of a problem with your spleen (splenomegaly).
- if you have recently had a serious lung infection (pneumonia), fluid in the lungs (pulmonary oedema), inflammation of the lungs (interstitial lung disease) or an abnormal chest x-ray (lung infiltration).
- if you are aware of any altered blood cell counts (e.g. increase in white blood cells or anaemia) or decreased blood platelet counts, which reduces the ability of your blood to clot (thrombocytopenia). Your doctor may want to monitor you more closely.
- if you have sickle cell anaemia. Your doctor may monitor your condition more closely.
- if you have sudden signs of allergy such as rash, itching or hives on the skin, swelling of the face, lips, tongue or other parts of the body, shortness of breath, wheezing or trouble breathing these could be signs of a severe allergic reaction.
- Inflammation of aorta (the large blood vessel which transports blood from the heart to the body) has been reported rarely in cancer patients and healthy donors. The symptoms can include fever, abdominal pain, malaise, back pain and increased inflammatory markers. Tell your doctor if you experience those symptoms.

Your doctor will check your blood and urine regularly as Neulastim can harm the tiny filters inside your kidneys (glomerulonephritis).

Severe skin reactions (Stevens-Johnson syndrome) have been reported with the use of Neulastim. Stop using Neulastim and seek medical attention immediately if you notice any of the symptoms described in section 4.

You should talk to your doctor about your risks of developing cancers of the blood. If you develop or are likely to develop cancers of the blood, you should not use Neulastim, unless instructed by your doctor.

Loss of response to pegfilgrastim

If you experience a loss of response or failure to maintain a response with pegfilgrastim treatment, your doctor will investigate the reasons why including whether you have developed antibodies which neutralise pegfilgrastim’s activity.

Other medicines and Neulastim

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

Pregnancy and breast-feeding

Ask your doctor or pharmacist for advice before taking any medicine. Neulastim has not been tested in pregnant women. It is important to tell your doctor if you:
- are pregnant;
- think you may be pregnant; or
- are planning to have a baby.

Unless your doctor directs you otherwise, you must stop breast-feeding if you use Neulastim.

Driving and using machines

Neulastim has no or negligible effect on the ability to drive or use machines.

Neulastim contains sorbitol (E420) and sodium acetate

Neulastim contains sorbitol. Patients with rare hereditary problems of fructose intolerance should not take this medicine.

This medicine contains less than 1 mmol (23 mg) sodium per 6 mg dose, that is to say essentially ‘sodium-free’

3. How to use Neulastim

Neulastim is for use in adults aged 18 and over.

Always take Neulastim exactly as your doctor has told you. You should check with your doctor or pharmacist if you are unsure. The usual dose is one 6 mg subcutaneous injection (injection under your skin) using a pre-filled syringe and it should be given at least 24 hours after your last dose of chemotherapy at the end of each chemotherapy cycle.

Do not shake Neulastim vigorously as this may affect its activity.

Injecting Neulastim yourself

Your doctor may decide that it would be more convenient for you to inject Neulastim yourself. Your doctor or nurse will show you how to inject yourself. Do not try to inject yourself if you have not been trained.

For further instructions on how to inject yourself with Neulastim, please read the section at the end of this leaflet.

If you use more Neulastim than you should

If you use more Neulastim than you should contact your doctor, pharmacist or nurse.

If you forget to inject Neulastim

If you are injecting yourself and have forgotten your dose of Neulastim, you should contact your doctor to discuss when you should inject the next dose.

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

4. Possible side effects

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

Please tell your doctor immediately if you have any of the following or combination of the following side effects:
- swelling or puffiness, which may be associated with passing water less frequently, difficulty breathing, abdominal swelling and feeling of fullness, and a general feeling of tiredness. These symptoms generally develop in a rapid fashion.

These could be symptoms of an uncommon (may affect up to 1 in 100 people) condition called “Capillary Leak Syndrome” which causes blood to leak from the small blood vessels into your body and needs urgent medical attention.

Very common side effects (may affect more than 1 in 10 people):
- bone pain. Your doctor will tell you what you can take to ease the bone pain.
- nausea and headaches.

Common side effects (may affect up to 1 in 10 people):
- pain at the site of injection.
- general aches and pains in the joints and muscles.
- some changes may occur in your blood, but these will be detected by routine blood tests. Your white blood cell count may become high for a short period of time. Your platelet count may become low which might result in bruising.

Uncommon side effects (may affect up to 1 in 100 people):
- allergic-type reactions, including redness and flushing, skin rash, and raised areas of the skin that itch.
- serious allergic reactions, including anaphylaxis (weakness, drop in blood pressure, difficulty breathing, swelling of the face).
- increased spleen size.
- spleen rupture. Some cases of splenic rupture were fatal. It is important that you contact your doctor immediately if you experience pain in the upper left side of the abdomen or left shoulder pain since this may relate to a problem with your spleen.
- breathing problems. If you have a cough, fever and difficulty breathing please tell your doctor.
- Sweet’s syndrome (plum-coloured, raised, painful lesions on the limbs and sometimes the face and neck with fever) has occurred but other factors may play a role.
- cutaneous vasculitis (inflammation of the blood vessels in the skin).
- damage to the tiny filters inside your kidneys (glomerulonephritis).
- redness at the site of injection.
- coughing up blood (haemoptysis).

Rare side effects (may affect up to 1 in 1,000 people):
- inflammation of aorta (the large blood vessel which transports blood from the heart to the body), see section 2.
- bleeding from the lung (pulmonary haemorrhage).
- Stevens-Johnson syndrome, which can appear as reddish target-like or circular patches often with central blisters on the trunk, skin peeling, ulcers of mouth, throat, nose, genitals and eyes and can be preceded by fever and flu-like symptoms. Stop using Neulastim if you develop these symptoms and contact your doctor or seek medical attention immediately. See also section 2.

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. By reporting side effects you can help provide more information on the safety of this medicine.

5. How to store Neulastim

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 on the syringe label after EXP. The expiry date refers to the last day of that month.

Store in a refrigerator (2°C – 8°C).

You may take Neulastim out of the refrigerator and keep it at room temperature (not above 30°C) for no longer than 3 days. Once a syringe has been removed from the refrigerator and has reached room temperature (not above 30°C) it must either be used within 3 days or disposed of.

Do not freeze. Neulastim may be used if it is accidentally frozen for a single period of less than 24 hours.

Keep the container in the outer carton in order to protect from light.

Do not use this medicine if you notice it is cloudy or there are particles in it.

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 Neulastim contains
- The active substance is pegfilgrastim. Each pre-filled syringe contains 6 mg of pegfilgrastim in 0.6 mL of solution.
- The other ingredients are sodium acetate, sorbitol (E420), polysorbate 20 and water for injections. See section 2.

What Neulastim looks like and contents of the pack

Neulastim is a clear, colourless solution for injection in a pre-filled syringe (6 mg/0.6 mL).

Each pack contains 1 pre-filled syringe of type I glass with an attached stainless steel needle and needle cap. The pre-filled syringes may be provided either with or without a blister wrapping.

Site of Manufacture of the Drug Product:
Amgen Manufacturing Limited
State Road 31
Kilometer 24.6
Juncos 00777-4060
Puerto Rico
USA

Marketing Authorisation Holder and Manufacturer:
Amgen Europe B.V.
Minervum 7061
4817 ZK Breda
The Netherlands

This leaflet was last revised in November 2019.

THIS MEDICINE

Is a product, which affects your health, and its consumption contrary to instructions is dangerous for you.
Follow strictly the doctor’s prescription, the method of use and the instructions of the pharmacist who sold the medicine.
- The doctor and the pharmacist are the experts in medicines, their benefits and risks.
- Do not by yourself interrupt the period of treatment prescribed.
- Do not repeat the same prescription without consulting your doctor.
- Keep all medicaments out or reach of children.

Council of Arab Health Ministers,
Union of Arab Pharmacists.

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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Instructions for injecting with the Neulastim pre-filled syringe

This section contains information on how to give yourself an injection of Neulastim. It is important that you do not try to give yourself the injection unless you have received training from your doctor, nurse, or pharmacist. If you have questions about how to inject, please ask your doctor, nurse, pharmacist for assistance.

How do you, or the person injecting you, use Neulastim pre-filled syringe?

You will need to give yourself the injection into the tissue just under the skin. This is known as a subcutaneous injection.

Equipment that you need

To give yourself a subcutaneous injection you will need:

- a pre-filled syringe of Neulastim; and
- alcohol wipes or similar.

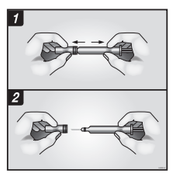
What should I do before I give myself a subcutaneous injection of Neulastim?

1. Remove from the refrigerator.
2. Do not shake the pre-filled syringe.
3. **Do not** remove the cap from the syringe until you are ready to inject.
4. Check the expiry date on the pre-filled syringe label (EXP). Do not use it if the date has passed the last day of the month shown.
5. Check the appearance of Neulastim. It must be a clear and colourless liquid. If there are particles in it, you must not use it.
6. For a more comfortable injection, let the pre-filled syringe stand for 30 minutes to reach room temperature or hold the pre-filled syringe gently in your hand for a few minutes. **Do not** warm Neulastim in any other way (for example, do not warm it in a microwave or in hot water).
7. **Wash your hands thoroughly**.
8. Find a comfortable, well-lit, clean surface and put all the equipment you need within reach.

How do I prepare my Neulastim injection?

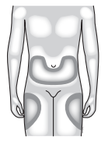
Before you inject Neulastim you must do the following:

1. Hold the syringe barrel and gently take the cap from the needle without twisting. Pull straight as shown in pictures 1 and 2. Do not touch the needle or push the plunger.



2. You may notice a small air bubble in the pre-filled syringe. You do not have to remove the air bubble before injecting. Injecting the solution with the air bubble is harmless.
3. You can now use the pre-filled syringe.

Where should I give my injection?



The most suitable places to inject yourself are:
- the top of your thighs; and
- the abdomen, except for the area around the navel.

If someone else is injecting you, they can also use the back of your arms.

How do I give my injection?

1. Clean your skin by using an alcohol wipe.
2. Pinch (without squeezing) the skin using your thumb and forefinger. Insert the needle into the skin.
3. Push the plunger down with a slow constant pressure. Push the plunger all the way down as far as it will go to inject all the liquid.
4. After injecting the liquid, remove the needle and let go of your skin.
5. If you notice a spot of blood at the injection site dab with a cotton ball or tissues. Do not rub the injection site. If needed, you may cover the injection site with a plaster.
6. Do not use any Neulastim that is left in the syringe.

Remember

Only use each syringe for one injection. If you have any problems, please ask your doctor or nurse for help and advice.

Disposing of used syringes

- Do not put the cap back on used needles.
- Keep used syringes out of the sight and reach of children.
- The used syringe should be disposed of in accordance with local requirements. Ask your pharmacist how to dispose of medicines no longer required. These measures will help to protect the environment.