

## **Package leaflet: Information for the user**

### **Ilaris 150 mg powder for solution for injection** canakinumab

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

#### **1. What Ilaris is and what it is used for**

##### **What Ilaris is**

Ilaris contains the active substance canakinumab, a monoclonal antibody that belongs to a group of medicines called interleukin inhibitors. It blocks the activity of a substance called interleukin-1 beta (IL-1 beta) in the body, which is present at increased levels in inflammatory diseases.

##### **What Ilaris is used for**

Ilaris is used for treatment of the following inflammatory diseases:

- Periodic fever syndromes:
  - Cryopyrin-associated periodic syndromes (CAPS),
  - Tumour necrosis factor receptor associated periodic syndrome (TRAPS),
  - Hyperimmunoglobulin D syndrome (HIDS)/mevalonate kinase deficiency (MKD),
  - Familial Mediterranean fever (FMF).
- Still's disease including adult onset Still's disease (AOSD) and systemic juvenile idiopathic arthritis (SJIA)
- Gouty arthritis

More information on each of these diseases is given below.

### Periodic fever syndromes

Ilaris is used in adults and children aged 2 years and older to treat the following:

- Cryopyrin-associated periodic syndromes (CAPS) – this is a group of auto-inflammatory diseases, which include:
  - Muckle-Wells syndrome (MWS),
  - Neonatal-onset multisystem inflammatory disease (NOMID), also called chronic infantile neurological, cutaneous, articular syndrome (CINCA),
  - Severe forms of familial cold auto-inflammatory syndrome (FCAS) / familial cold urticaria (FCU) presenting with signs and symptoms beyond cold-induced urticarial skin rash.
- Tumour necrosis factor receptor associated periodic syndrome (TRAPS)
- Hyperimmunoglobulin D syndrome (HIDS) also known as mevalonate kinase deficiency (MKD)
- Familial Mediterranean fever (FMF): Ilaris is used to treat FMF. Ilaris can be used together with colchicine, if appropriate.

In patients with periodic fever syndromes (CAPS, TRAPS, HIDS/MKD and FMF), the body produces too much IL-1 beta. This may cause fever, headache, fatigue, skin rash, or painful joints and muscles. By blocking the activity of IL-1 beta, Ilaris may improve these symptoms.

### Still's disease

Ilaris is used in adults, adolescents and children to treat active Still's disease including adult-onset Still's disease (AOSD) and systemic juvenile idiopathic arthritis (SJIA) in patients aged 2 years and older if other treatments have not worked well enough. Ilaris can be used alone or in combination with methotrexate.

Still's disease including SJIA and AOSD is an inflammatory disease that can cause pain, swelling and inflammation of one or more joints, as well as rash and fever. A pro-inflammatory protein called IL-1 beta plays an important role in Still's disease inflammation. Ilaris blocks the activity of IL-1 beta, which may improve the signs and symptoms of Still's disease.

### Gouty arthritis

Ilaris is used in adults to treat the symptoms of frequent gouty arthritis attacks if other treatments have not worked well enough.

Gouty arthritis is caused by the formation of urate crystals. These crystals cause excessive production of IL-1 beta, which in turn can lead to sudden, severe pain, redness, warmth and swelling in a joint (known as a gouty arthritis attack). By blocking the activity of IL-1 beta, Ilaris may lead to an improvement in these symptoms.

## 2. What you need to know before you use Ilaris

### Do not use Ilaris

- if you are allergic to canakinumab or any of the other ingredients of this medicine (listed in section 6).
- if you have, or suspect you have, an active and severe infection.

### Warning and precautions

**Talk to your doctor before using Ilaris** if any of the following applies to you:

- if you currently have an infection or if you have had repeated infections or a condition such as a known low level of white blood cells which makes you more likely to get infections.
- if you have or have ever had tuberculosis or direct contact with a person with an active tuberculosis infection. Your doctor may check whether you have tuberculosis using a specific test.
- if you have signs of a liver disorder such as yellow skin and eyes, nausea, loss of appetite, dark-coloured urine and light-coloured stools.
- if you need to have any vaccinations. You are advised to avoid being vaccinated with a type of vaccine called a live vaccine while being treated with Ilaris (see also “Other medicines and Ilaris”).

### Contact your doctor immediately

- If you have ever developed an atypical, widespread rash or skin peeling after taking Ilaris. The serious skin reaction, DRESS (drug reaction with eosinophilia and systemic symptoms), has rarely been reported in association with Ilaris treatment, predominantly in patients with systemic juvenile idiopathic arthritis (sJIA). Seek medical attention immediately if you notice an atypical, widespread rash, which may occur in conjunction with high body temperature and enlarged lymph nodes.

### Still’s disease

- Patients with Still’s disease may develop a condition called macrophage activation syndrome (MAS), which can be life-threatening. Your doctor will monitor you for potential triggering factors of MAS that include infections and re-activation of the underlying Still’s disease (flare).

### Children and adolescents

- **CAPS, TRAPS, HIDS/MKD, FMF and SJIA:** Ilaris can be used in children aged 2 years and older.
- **Gouty arthritis:** Ilaris is not recommended for children or adolescents under 18 years of age.

### Other medicines and Ilaris

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

- Live vaccines: You are advised to avoid being vaccinated with a type of vaccine called a live vaccine while you are being treated with Ilaris. Your doctor may want to check your vaccination history and give you any vaccinations that you have missed before you start treatment with Ilaris. If you need to be given a live vaccine after starting treatment with Ilaris, discuss this with your doctor. A live vaccine should normally be given 3 months after your last injection of Ilaris and 3 months before the next one.
- Medicines called tumour necrosis factor (TNF) inhibitors, such as etanercept, adalimumab or infliximab. These are used mainly in rheumatic and autoimmune diseases. They should not be used with Ilaris because this may increase the risk of infections.

### **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 taking this medicine.

- You are advised to avoid becoming pregnant and must use adequate contraception while using Ilaris and for at least 3 months after the last Ilaris treatment. It is important to tell your doctor if you are pregnant, if you think you may be pregnant or are planning to have a baby. Your doctor will discuss with you the potential risks of taking Ilaris during pregnancy.
- If you received canakinumab while you were pregnant, it is important that you inform the baby's doctor or nurse before any vaccinations are given to your baby. Your baby should not receive live vaccines until at least 16 weeks after you received your last dose of canakinumab before giving birth.
- It is not known whether Ilaris passes into human milk. Your doctor will discuss with you the potential risks of taking Ilaris before breast-feeding.

### **Driving and using machines**

Ilaris treatment may give you a spinning sensation (dizziness or vertigo) or intense tiredness (asthenia). This may affect your ability to drive or use tools or machines. If you feel a spinning sensation or feel tired, do not drive or use any tools or machines until you are feeling normal again.

## **3. How to use Ilaris**

Always use this medicine exactly as your doctor has told you. Check with your doctor, pharmacist or nurse if you are not sure.

Keep your doctor informed of your condition and any symptoms before you use or are given Ilaris (see section 2). Your doctor may decide to delay or interrupt your treatment, but only if necessary.

Ilaris is intended for subcutaneous use. This means that it is injected through a short needle into the fatty tissue just under the skin.

If you have gouty arthritis, your treatment will be overseen by a doctor with specialist training. Ilaris should be injected by a healthcare professional only.

If you have CAPS, TRAPS, HIDS/MKD, FMF or Still's disease (AOSD or SJIA), you may inject yourself with Ilaris after proper training, or a caregiver may inject it for you.

### **How much Ilaris to use**

#### Cryopyrin-associated periodic syndromes (CAPS)

The recommended starting dose of Ilaris is:

- *Adults and children aged 4 years or more*
  - 150 mg for patients who weigh more than 40 kg
  - 2 mg/kg for patients who weigh between 15 kg and 40 kg
  - 4 mg/kg for patients who weigh between 7.5 kg and less than 15 kg
- *Children aged 2 or 3 years*
  - 4 mg/kg for patients with body weight of 7.5 kg or more

Ilaris is injected every 8 weeks as a single dose.

- If you have not responded well enough to the treatment after 7 days, your doctor may give you another dose of 150 mg or 2 mg/kg.
- If you respond well enough to the second dose, your treatment will be continued with 300 mg or 4 mg/kg every 8 weeks.
- If you do not respond well enough to the second dose, a third dose of Ilaris at 300 mg or 4 mg/kg may be given.
- If you respond well enough to the third dose, your treatment will be continued at 600 mg or 8 mg/kg every 8 weeks.

For children given a starting dose of 4 mg/kg who have not responded well enough after 7 days, the doctor may give a second dose of 4 mg/kg. If the child responds well enough to this, treatment may be continued with a dose of 8 mg/kg every 8 weeks.

Tumour necrosis factor receptor associated periodic syndrome (TRAPS), hyperimmunoglobulin D syndrome (HIDS)/mevalonate kinase deficiency (MKD) and familial Mediterranean fever (FMF)

The recommended starting dose of Ilaris is:

- *Adults and children aged 2 years or more*
  - 150 mg for patients who weigh more than 40 kg
  - 2 mg/kg for patients who weigh between 7.5 kg and less than 40 kg

Ilaris is injected every 4 weeks as a single dose.

- If you have not responded well enough to the treatment after 7 days, your doctor may give you another dose of 150 mg or 2 mg/kg.
- If you respond well enough to this, your treatment will be continued with 300 mg or 4 mg/kg every 4 weeks.

Still's disease (SJIA and AOSD)

The recommended dose of Ilaris for patients with Still's disease with body weight of 7.5 kg and above is 4 mg/kg (up to a maximum of 300 mg). Ilaris is injected every 4 weeks as a single dose.

Gouty arthritis

Your doctor will discuss with you the need to start or adjust a urate lowering therapy to lower the uric acid level in your blood.

The recommended dose of Ilaris for adult gouty arthritis patients is 150 mg given as a single dose at the time of a gouty arthritis attack.

If you need another treatment with Ilaris, and got relief from the last dose, you must wait at least 12 weeks before the next dose.

**Injecting Ilaris yourself or injecting a patient with Ilaris**

If you are a patient with CAPS, TRAPS, HIDS/MKD, FMF or Still's disease (AOSD or SJIA), or a caregiver of a patient with one of these conditions, you may administer Ilaris injections yourself after proper training in the correct injection technique.

- The patient or caregiver and the doctor should decide together who will administer the Ilaris injections.
- The doctor or nurse will demonstrate how to administer Ilaris injections.
- Do not try to administer an injection yourself if you have not been properly trained or if you are not sure how to do it.
- Ilaris 150 mg powder for solution for injection is supplied in a single-use vial for individual use.
- Never re-use the leftover solution.

For instructions on how to administer Ilaris injections, please read the section "Instructions for use" at the end of this leaflet. If you have any questions, talk to your doctor, pharmacist or nurse.

**How long to use Ilaris**

- **CAPS, TRAPS, HIDS/MKD, FMF or Still's disease (AOSD or SJIA):** You should continue using Ilaris for as long as the doctor tells you.
- **Gouty arthritis:** If you have a gouty arthritis attack, you will be given a single dose of Ilaris. If you experience a new attack, your doctor may consider giving you a new dose of Ilaris but not earlier than 12 weeks from the previous dose.

**If you use more Ilaris than you should**

If you accidentally inject more Ilaris than the recommended dose, it is unlikely to be serious, but you should inform your doctor, pharmacist or nurse as soon as possible.

**If you forget to use Ilaris**

If you have CAPS, TRAPS, HIDS/MKD, FMF or Still's disease (AOSD or SJIA) and have forgotten to inject a dose of Ilaris, inject the next dose as soon as you remember. Then talk to the doctor to discuss when you should inject the next dose. You should then continue with injections at the recommended intervals as before.

**If you stop using Ilaris**

Stopping your treatment with Ilaris may cause your condition to get worse. Do not stop taking Ilaris unless your doctor tells you to.

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.

**Some side effects could be serious. Tell your doctor immediately, if you notice any of the side effects below:**

- Fever lasting longer than 3 days or any other symptoms that might suggest a serious infection. These include shivering, chills, malaise, loss of appetite, body aches, typically in connection with a sudden onset of illness, sore throat or mouth ulcers, cough, phlegm, chest pain, difficulty breathing, ear pain, prolonged headache or localised redness, warmth or swelling of your skin or inflammation of connective tissue (cellulitis). These symptoms could be due to a serious infection, an unusual infection (opportunistic infection) or be related to low levels of white blood cells (called leukopenia or neutropenia). Your doctor may check your blood regularly if considered necessary.
- Allergic reactions with rash and itching and possibly also hives, difficulty breathing or swallowing, dizziness, unusual awareness of your heart beat (palpitations) or low blood pressure.

**Other side effects of Ilaris include:**

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

- Infections of any kind. These can include:
  - Respiratory infections such as chest infection, flu, sore throat, runny nose, blocked nose, sneezing, feeling of pressure or pain in the cheeks or forehead with or without fever (pneumonia, bronchitis, influenza, sinusitis, rhinitis, pharyngitis, tonsillitis, nasopharyngitis, upper respiratory tract infection).
  - Other infections such as ear infection, skin infection (cellulitis), stomach pain and feeling sick (gastroenteritis) and painful and frequent urination with or without fever (urinary tract infection).
- Upper abdominal pain.
- Pain in joints (arthralgia).
- Drop in level of white blood cells (leukopenia).
- Abnormal kidney function test results (creatinine renal clearance decreased, proteinuria).
- Injection site reaction (such as redness, swelling, warmth and itching).

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

- Candida - vaginal yeast infection (vulvovaginal candidiasis).
- Feeling dizzy, spinning sensation (dizziness or vertigo).
- Pain in the back or muscles.
- Feeling weak or very tired (fatigue, asthenia).
- Drop in level of white blood cells which help prevent infection (neutropenia).
- Abnormal levels of triglycerides in your blood (lipid metabolism disorder).
- Abnormal liver function test results (transaminases increased) or high level of bilirubin in the blood, with or without yellow skin and eyes (hyperbilirubinaemia).

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

- Heartburn (gastro-oesophageal reflux disease).
- Drop in level of blood cells which help prevent bleeding (platelets).

Tell your doctor or your child's doctor immediately if you notice any of these symptoms.

### **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 national reporting system listed in Appendix V](#). By reporting side effects you can help provide more information on the safety of this medicine.

## **5. How to store Ilaris**

- 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 and carton. The expiry date refers to the last day of that month.
- Store in a refrigerator (2°C - 8°C). Do not freeze.
- Store in the original package in order to protect from light.
- After mixing (reconstitution) the medicine should be used immediately. If not used immediately, the solution should be stored in the refrigerator (2°C - 8°C) and used within 24 hours.
- Do not use this medicine if you notice that the solution is not clear to opalescent or contains particles.
- Any unused medicine must be discarded after the dose has been injected.
- 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 protect the environment.

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

### **What Ilaris contains**

- The active substance is canakinumab. One vial of powder contains 150 mg canakinumab. After reconstitution, each ml of solution contains 150 mg canakinumab.
- The other ingredients are: sucrose, histidine, histidine hydrochloride monohydrate, polysorbate 80.

### **What Ilaris looks like and contents of the pack**

- Ilaris is supplied as a powder for solution for injection (150 mg in a 6 ml glass vial).
- The powder is white.
- Ilaris is available in packs containing one vial or multipacks comprising four intermediate packs, each containing one vial. Not all pack sizes may be marketed in your country.

### **Marketing Authorisation Holder**

Novartis Europharm Limited  
Vista Building  
Elm Park, Merrion Road  
Dublin 4  
Ireland



## Instructions for use of Ilaris powder for solution for injection

Please note that the preparation of the injection takes about 30 minutes.  
See also section 3, “Injecting Ilaris yourself or injecting a patient with Ilaris”.

Read these instructions all the way through before beginning.

### Essential preparation

- Find a clean place in which to prepare and administer the injection.
- Wash your hands with soap and water.
- Check the expiry dates on the vial and syringes. Do not use after the expiry date which is stated on the label and carton. The expiry date refers to the last day of that month.
- Always use new, unopened needles and syringes. Avoid touching the needles and the tops of the vials.

### Gather together the necessary items

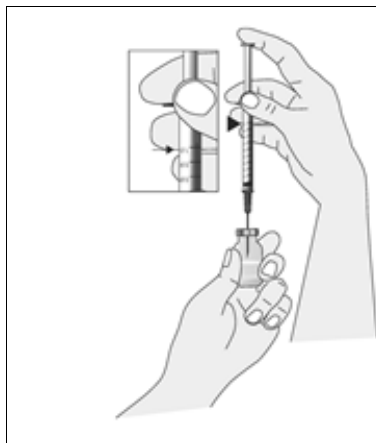
#### Included in the pack

- one vial of Ilaris powder for solution for injection (keep refrigerated)

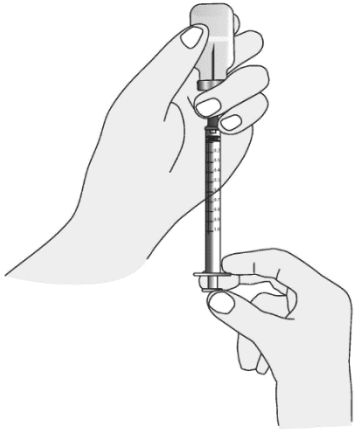


#### Not included in the pack


- one vial (or ampoule) of sterile water for injections (“water”) (at room temperature)
- one 1.0 ml syringe
- one 18 G x 2 inch (50 mm) needle for reconstituting the powder (“transfer needle”)
- one 27 G x 0.5 inch (13 mm) needle for injecting (“injection needle”)
- alcohol swabs
- clean, dry cotton swabs
- an adhesive plaster
- a proper disposal container for used needles, syringe and vials (sharps container)

### Mixing Ilaris

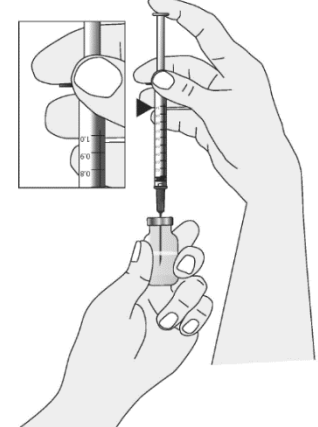
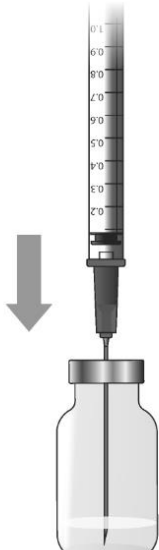


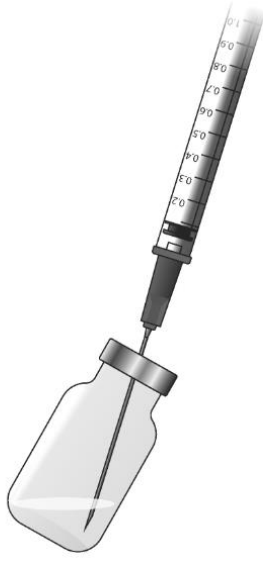
1. Remove the caps from the Ilaris and water vials. Do not touch the vial stoppers. Clean the stoppers with the alcohol swab.
2. Open the wrappers containing the syringe and the transfer needle (the 50 mm needle) and attach the needle to the syringe.
3. Carefully remove the cap from the transfer needle and set the cap aside. Pull the plunger all the way down to the 1.0 ml mark, filling the syringe with air. Insert the needle into the water vial through the centre of the rubber stopper.
4. Gently push the plunger all the way down until air is in the vial.

	<ol style="list-style-type: none"> <li>5. Turn the vial and syringe upside down and bring to eye level.</li> <li>6. Make sure the tip of the transfer needle is covered by the water and slowly pull the syringe plunger down to slightly past the 1.0 ml mark. If you see bubbles in the syringe, remove bubbles as instructed by your healthcare professional or pharmacist.</li> <li>7. Make sure 1.0 ml of water is in the syringe, then take the needle out of the vial. (There will be water remaining in the vial.)</li> </ol>
	<ol style="list-style-type: none"> <li>8. Insert the transfer needle through the centre of the stopper of the vial of Ilaris powder, taking care not to touch the needle or the stopper. Slowly inject the water into the vial containing the Ilaris powder.</li> <li>9. Carefully remove the transfer needle from the vial and recap the needle as instructed by your healthcare provider or pharmacist.</li> </ol>
	<ol style="list-style-type: none"> <li>10. Without touching the rubber stopper, swirl (do not shake) the vial slowly at an angle of about 45 degrees for about 1 minute. Allow to stand for 5 minutes.</li> </ol>



	<ol style="list-style-type: none"> <li>11. Now, gently turn the vial upside down and back again ten times, again taking care not to touch the rubber stopper.</li> <li>12. Allow to stand for about 15 minutes at room temperature to get a clear to opalescent solution. Do not shake. Do not use if particles are present in the solution.</li> <li>13. Make sure all of the solution is in the bottom of the vial. If drops remain on the stopper, tap the side of the vial to remove them. The solution should be clear to opalescent and free of visible particles. The solution should be colourless or may have a slight brownish-yellow tint. <ul style="list-style-type: none"> <li>- If not used immediately after mixing, the solution should be stored in the refrigerator (2°C to 8°C) and used within 24 hours.</li> </ul> </li> </ol>
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### Preparing the injection


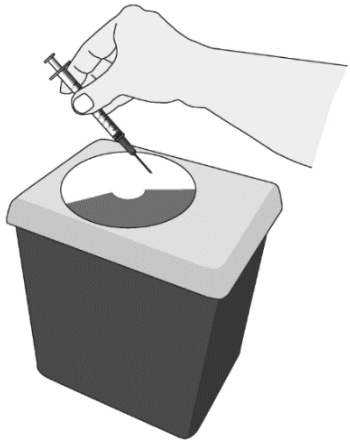
	<ol style="list-style-type: none"> <li>14. Clean the rubber stopper of the vial containing the Ilaris solution with a new alcohol swab.</li> <li>15. Uncap the transfer needle again. Pull the plunger of the syringe all the way down to the 1.0 ml mark, filling the syringe with air. Insert the syringe needle into the vial of Ilaris solution through the centre of the rubber stopper. The needle should not be in the liquid at this point. Gently push the plunger all the way down until all of the air is injected into the vial. Do not inject air into the liquid.</li> </ol>
	<ol style="list-style-type: none"> <li>16. <b>Do not</b> turn the vial and syringe upside down, the vial should stay upright. Insert the needle all the way into the vial until it reaches the bottom edge.</li> </ol>

	<ol style="list-style-type: none"> <li>17. Tip the vial to ensure that the required amount of solution can be drawn into the syringe</li> <li>18. NOTE: The required amount depends on the dose to be administered. Your healthcare provider will instruct you on the right amount for you.</li> <li>19. Slowly pull the syringe plunger up to the correct mark (amount to be given), filling the syringe with Ilaris solution. If there are air bubbles in the syringe, remove bubbles as instructed by your healthcare provider. Ensure that the correct amount of solution is in the syringe.</li> <li>20. Remove the syringe and needle from the vial. (There may be solution remaining in the vial.) Recap the transfer needle as instructed by your healthcare provider or pharmacist. Remove the transfer needle from the syringe. Place the transfer needle in the sharps container.</li> <li>21. Open the wrapper containing the injection needle and attach the needle to the syringe. Set the syringe aside.</li> </ol>
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### Giving the injection

	<ol style="list-style-type: none"> <li>22. Choose an injection site on the upper thigh, abdomen, upper arm or buttocks. Do not use an area that has a rash or broken skin, or is bruised or lumpy. Do not inject into scar-tissue as this may mean you do not get all of your medicine. Avoid injecting into a vein.</li> <li>23. Clean the injection site with a new alcohol swab. Allow the area to dry. Uncap the injection needle.</li> <li>24. Gently pinch the skin up at the injection site. Hold the syringe at a 90-degree angle and in a single, smooth motion, push the needle straight down completely into the skin.</li> </ol>
	<ol style="list-style-type: none"> <li>25. Keep the needle all the way in the skin while slowly pushing the syringe plunger down until the barrel is empty. Release the pinched skin and pull the needle straight out. Dispose of the needle and syringe in the sharps container without recapping or removing the needle.</li> </ol>

## After the injection

	<p>26. Do not rub the injection area. If bleeding occurs, apply a clean, dry cotton swab over the area, and press gently for 1 to 2 minutes, or until bleeding stops. Then apply an adhesive plaster.</p>
	<p>27. Safely dispose of needles and syringe in the sharps container or as directed by your healthcare provider or pharmacist. Never re-use syringes or needles.</p> <p>28. Properly dispose of vials containing remaining water and Ilaris solution (if any) as directed by your healthcare provider or pharmacist. Any unused product or waste material should be disposed of in accordance with local requirements.</p> <p>Keep the sharps container out of reach of children.</p> <p>Dispose of it as directed by your healthcare provider or pharmacist.</p>

## Package leaflet: Information for the user

### Ilaris 150 mg/ml solution for injection canakinumab

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

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- 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.

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#### **1. What Ilaris is and what it is used for**

##### **What Ilaris is**

Ilaris contains the active substance canakinumab, a monoclonal antibody that belongs to a group of medicines called interleukin inhibitors. It blocks the activity of a substance called interleukin-1 beta (IL-1 beta) in the body, which is present at increased levels in inflammatory diseases.

##### **What Ilaris is used for**

Ilaris is used for treatment of the following inflammatory diseases:

- Periodic fever syndromes:
  - Cryopyrin-associated periodic syndromes (CAPS),
  - Tumour necrosis factor receptor associated periodic syndrome (TRAPS),
  - Hyperimmunoglobulin D syndrome (HIDS)/mevalonate kinase deficiency (MKD),
  - Familial Mediterranean fever (FMF).
- Still's disease including adult onset Still's disease (AOSD) and systemic juvenile idiopathic arthritis (SJIA)
- Gouty arthritis

More information on each of these diseases is given below.

### Periodic fever syndromes

Ilaris is used in adults and children aged 2 years and older to treat the following:

- Cryopyrin-associated periodic syndromes (CAPS) – this is a group of auto-inflammatory diseases, which include:
  - Muckle-Wells syndrome (MWS),
  - Neonatal-onset multisystem inflammatory disease (NOMID), also called chronic infantile neurological, cutaneous, articular syndrome (CINCA),
  - Severe forms of familial cold auto-inflammatory syndrome (FCAS) / familial cold urticaria (FCU) presenting with signs and symptoms beyond cold-induced urticarial skin rash.
- Tumour necrosis factor receptor associated periodic syndrome (TRAPS)
- Hyperimmunoglobulin D syndrome (HIDS) also known as mevalonate kinase deficiency (MKD)
- Familial Mediterranean fever (FMF): Ilaris is used to treat FMF. Ilaris can be used together with colchicine, if appropriate.

In patients with periodic fever syndromes (CAPS, TRAPS, HIDS/MKD and FMF), the body produces too much IL-1 beta. This may cause fever, headache, fatigue, skin rash, or painful joints and muscles. By blocking the activity of IL-1 beta, Ilaris may improve these symptoms.

### Still's disease

Ilaris is used in adults, adolescents and children to treat active Still's disease including adult-onset Still's disease (AOSD) and systemic juvenile idiopathic arthritis (SJIA) in patients aged 2 years and older if other treatments have not worked well enough. Ilaris can be used alone or in combination with methotrexate.

Still's disease including SJIA and AOSD is an inflammatory disease that can cause pain, swelling and inflammation of one or more joints, as well as rash and fever. A pro-inflammatory protein called IL-1 beta plays an important role in Still's disease inflammation. Ilaris blocks the activity of IL-1 beta, which may improve the signs and symptoms of Still's disease.

### Gouty arthritis

Ilaris is used in adults to treat the symptoms of frequent gouty arthritis attacks if other treatments have not worked well enough.

Gouty arthritis is caused by the formation of urate crystals. These crystals cause excessive production of IL-1 beta, which in turn can lead to sudden, severe pain, redness, warmth and swelling in a joint (known as a gouty arthritis attack). By blocking the activity of IL-1 beta, Ilaris may lead to an improvement in these symptoms.

## 2. What you need to know before you use Ilaris

### Do not use Ilaris

- if you are allergic to canakinumab or any of the other ingredients of this medicine (listed in section 6).
- if you have, or suspect you have, an active and severe infection.

### Warning and precautions

**Talk to your doctor before using Ilaris** if any of the following applies to you:

- if you currently have an infection or if you have had repeated infections or a condition such as a known low level of white blood cells which makes you more likely to get infections.
- if you have or have ever had tuberculosis or direct contact with a person with an active tuberculosis infection. Your doctor may check whether you have tuberculosis using a specific test.
- if you have signs of a liver disorder such as yellow skin and eyes, nausea, loss of appetite, dark-coloured urine and light-coloured stools.
- if you need to have any vaccinations. You are advised to avoid being vaccinated with a type of vaccine called a live vaccine while being treated with Ilaris (see also “Other medicines and Ilaris”).

### Contact your doctor immediately

- If you have ever developed an atypical, widespread rash or skin peeling after taking Ilaris. The serious skin reaction, DRESS (drug reaction with eosinophilia and systemic symptoms), has rarely been reported in association with Ilaris treatment, predominantly in patients with systemic juvenile idiopathic arthritis (sJIA). Seek medical attention immediately if you notice an atypical, widespread rash, which may occur in conjunction with high body temperature and enlarged lymph nodes.

### Still’s disease

- Patients with Still’s disease may develop a condition called macrophage activation syndrome (MAS), which can be life-threatening. Your doctor will monitor you for potential triggering factors of MAS that include infections and re-activation of the underlying Still’s disease (flare).

### Children and adolescents

- **CAPS, TRAPS, HIDS/MKD, FMF and SJIA:** Ilaris can be used in children aged 2 years and older.
- **Gouty arthritis:** Ilaris is not recommended for children or adolescents under 18 years of age.

### Other medicines and Ilaris

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

- Live vaccines: You are advised to avoid being vaccinated with a type of vaccine called a live vaccine while you are being treated with Ilaris. Your doctor may want to check your vaccination history and give you any vaccinations that you have missed before you start treatment with Ilaris. If you need to be given a live vaccine after starting treatment with Ilaris, discuss this with your doctor. A live vaccine should normally be given 3 months after your last injection of Ilaris and 3 months before the next one.
- Medicines called tumour necrosis factor (TNF) inhibitors, such as etanercept, adalimumab or infliximab. These are used mainly in rheumatic and autoimmune diseases. They should not be used with Ilaris because this may increase the risk of infections.



### **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 taking this medicine.

- You are advised to avoid becoming pregnant and must use adequate contraception while using Ilaris and for at least 3 months after the last Ilaris treatment. It is important to tell your doctor if you are pregnant, if you think you may be pregnant or are planning to have a baby. Your doctor will discuss with you the potential risks of taking Ilaris during pregnancy.
- If you received canakinumab while you were pregnant, it is important that you inform the baby's doctor or nurse before any vaccinations are given to your baby. Your baby should not receive live vaccines until at least 16 weeks after you received your last dose of canakinumab before giving birth.
- It is not known whether Ilaris passes into human milk. Your doctor will discuss with you the potential risks of taking Ilaris before breast-feeding.

### **Driving and using machines**

Ilaris treatment may give you a spinning sensation (dizziness or vertigo) or intense tiredness (asthenia). This may affect your ability to drive or use tools or machines. If you feel a spinning sensation or feel tired, do not drive or use any tools or machines until you are feeling normal again.

## **3. How to use Ilaris**

Always use this medicine exactly as your doctor has told you. Check with your doctor, pharmacist or nurse if you are not sure.

Keep your doctor informed of your condition and any symptoms before you use or are given Ilaris (see section 2). Your doctor may decide to delay or interrupt your treatment, but only if necessary.

Ilaris is intended for subcutaneous use. This means that it is injected through a short needle into the fatty tissue just under the skin.

If you have gouty arthritis, your treatment will be overseen by a doctor with specialist training. Ilaris should be injected by a healthcare professional only.

If you have CAPS, TRAPS, HIDS/MKD, FMF or Still's disease (AOSD or SJIA), you may inject yourself with Ilaris after proper training, or a caregiver may inject it for you.

### **How much Ilaris to use**

#### Cryopyrin- associated periodic syndromes (CAPS)

The recommended starting dose of Ilaris is:

- *Adults and children aged 4 years or more*
  - 150 mg for patients who weigh more than 40 kg
  - 2 mg/kg for patients who weigh between 15 kg and 40 kg
  - 4 mg/kg for patients who weigh between 7.5 kg and less than 15 kg
- *Children aged 2 or 3 years*
  - 4 mg/kg for patients with body weight of 7.5 kg or more

Ilaris is injected every 8 weeks as a single dose.

- If you have not responded well enough to the treatment after 7 days, your doctor may give you another dose of 150 mg or 2 mg/kg.
- If you respond well enough to the second dose, your treatment will be continued with 300 mg or 4 mg/kg every 8 weeks.
- If you do not respond well enough to the second dose, a third dose of Ilaris at 300 mg or 4 mg/kg may be given.
- If you respond well enough to the third dose, your treatment will be continued at 600 mg or 8 mg/kg every 8 weeks.

For children given a starting dose of 4 mg/kg who have not responded well enough after 7 days, the doctor may give a second dose of 4 mg/kg. If the child responds well enough to this, treatment may be continued with a dose of 8 mg/kg every 8 weeks.

Tumour necrosis factor receptor associated periodic syndrome (TRAPS), hyperimmunoglobulin D syndrome (HIDS)/mevalonate kinase deficiency (MKD) and familial Mediterranean fever (FMF)

The recommended starting dose of Ilaris is:

- *Adults and children aged 2 years or more*
  - 150 mg for patients who weigh more than 40 kg
  - 2 mg/kg for patients who weigh between 7.5 kg and less than 40 kg

Ilaris is injected every 4 weeks as a single dose.

- If you have not responded well enough to the treatment after 7 days, your doctor may give you another dose of 150 mg or 2 mg/kg.
- If you respond well enough to this, your treatment will be continued with 300 mg or 4 mg/kg every 4 weeks.

Still's disease (SJIA and AOSD)

The recommended dose of Ilaris for patients with Still's disease with body weight of 7.5 kg and above is 4 mg/kg (up to a maximum of 300 mg). Ilaris is injected every 4 weeks as a single dose.

Gouty arthritis

Your doctor will discuss with you the need to start or adjust a urate lowering therapy to lower the uric acid level in your blood.

The recommended dose of Ilaris for adult gouty arthritis patients is 150 mg given as a single dose at the time of a gouty arthritis attack.

If you need another treatment with Ilaris, and got relief from the last dose, you must wait at least 12 weeks before the next dose.

**Injecting Ilaris yourself or injecting a patient with Ilaris**

If you are a patient with CAPS, TRAPS, HIDS/MKD, FMF or Still's disease (AOSD or SJIA), or a caregiver of a patient with one of these conditions, you may administer Ilaris injections yourself after proper training in the correct injection technique.

- The patient or caregiver and the doctor should decide together who will administer the Ilaris injections.
- The doctor or nurse will demonstrate how to administer Ilaris injections.
- Do not try to administer an injection yourself if you have not been properly trained or if you are not sure how to do it.
- Ilaris 150 mg/ml solution for injection is supplied in a single-use vial for individual use.
- Never re-use the leftover solution.

For instructions on how to administer Ilaris injections, please read the section “Instructions for use” at the end of this leaflet. If you have any questions, talk to your doctor, pharmacist or nurse.

### **How long to use Ilaris**

- **CAPS, TRAPS, HIDS/MKD, FMF or Still’s disease (AOSD or SJIA):** You should continue using Ilaris for as long as the doctor tells you.
- **Gouty arthritis:** If you have a gouty arthritis attack, you will be given a single dose of Ilaris. If you experience a new attack, your doctor may consider giving you a new dose of Ilaris but not earlier than 12 weeks from the previous dose.

### **If you use more Ilaris than you should**

If you accidentally inject more Ilaris than the recommended dose, it is unlikely to be serious, but you should inform your doctor, pharmacist or nurse as soon as possible.

### **If you forget to use Ilaris**

If you have CAPS, TRAPS, HIDS/MKD, FMF or Still’s disease (AOSD or SJIA) and have forgotten to inject a dose of Ilaris, inject the next dose as soon as you remember. Then talk to the doctor to discuss when you should inject the next dose. You should then continue with injections at the recommended intervals as before.

### **If you stop using Ilaris**

Stopping your treatment with Ilaris may cause your condition to get worse. Do not stop taking Ilaris unless your doctor tells you to.

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.

### **Some side effects could be serious. Tell your doctor immediately, if you notice any of the side effects below:**

- Fever lasting longer than 3 days or any other symptoms that might suggest a serious infection. These include shivering, chills, malaise, loss of appetite, body aches, typically in connection with a sudden onset of illness, sore throat or mouth ulcers, cough, phlegm, chest pain, difficulty breathing, ear pain, prolonged headache or localised redness, warmth or swelling of your skin or inflammation of connective tissue (cellulitis). These symptoms could be due to a serious infection, an unusual infection (opportunistic infection) or be related to low levels of white blood cells (called leukopenia or neutropenia). Your doctor may check your blood regularly if considered necessary.
- Allergic reactions with rash and itching and possibly also hives, difficulty breathing or swallowing, dizziness, unusual awareness of your heart beat (palpitations) or low blood pressure.

**Other side effects of Ilaris include:**

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

- Infections of any kind. These can include:
  - Respiratory infections such as chest infection, flu, sore throat, runny nose, blocked nose, sneezing, feeling of pressure or pain in the cheeks or forehead with or without fever (pneumonia, bronchitis, influenza, sinusitis, rhinitis, pharyngitis, tonsillitis, nasopharyngitis, upper respiratory tract infection).
  - Other infections such as ear infection, skin infection (cellulitis), stomach pain and feeling sick (gastroenteritis) and painful and frequent urination with or without fever (urinary tract infection).
- Upper abdominal pain.
- Pain in joints (arthralgia).
- Drop in level of white blood cells (leukopenia).
- Abnormal kidney function test results (creatinine renal clearance decreased, proteinuria).
- Injection site reaction (such as redness, swelling, warmth and itching).

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

- Candida - vaginal yeast infection (vulvovaginal candidiasis).
- Feeling dizzy, spinning sensation (dizziness or vertigo).
- Pain in the back or muscles.
- Feeling weak or very tired (fatigue, asthenia).
- Drop in level of white blood cells which help prevent infection (neutropenia).
- Abnormal levels of triglycerides in your blood (lipid metabolism disorder).
- Abnormal liver function test results (transaminases increased) or high level of bilirubin in the blood, with or without yellow skin and eyes (hyperbilirubinaemia).

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

- Heartburn (gastro-oesophageal reflux disease).
- Drop in level of blood cells which help prevent bleeding (platelets).

Tell your doctor or your child's doctor immediately if you notice any of these symptoms.

**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 national reporting system listed in [Appendix V](#). By reporting side effects you can help provide more information on the safety of this medicine.

## **5. How to store Ilaris**

- 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 and carton. The expiry date refers to the last day of that month.
- Store in a refrigerator (2°C - 8°C). Do not freeze.
- Keep the vial in the outer carton in order to protect from light.
- The solution should be used immediately after first piercing the vial stopper to prepare the injection.
- Do not use this medicine if you notice that the solution is not clear to opalescent or contains particles.
- Any unused medicine must be discarded after withdrawal of the dose.
- 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 protect the environment.

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

### **What Ilaris contains**

- The active substance is canakinumab. One vial contains 150 mg canakinumab in 1 ml of solution.
- The other ingredients are mannitol, histidine, histidine hydrochloride monohydrate, polysorbate 80, water for injections.

### **What Ilaris looks like and contents of the pack**

- Ilaris is supplied as a solution for injection in a 2 ml glass vial.
- The solution is a clear to opalescent liquid. It is colourless to slightly brownish-yellow. Do not use if the liquid contains easily visible particles, is cloudy or is distinctly brown.
- Ilaris is available in packs containing one vial.

### **Marketing Authorisation Holder**

Novartis Europharm Limited  
Vista Building  
Elm Park, Merrion Road  
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Ireland

## Instructions for use of Ilaris solution for injection

Read all the way through these instructions before injecting.

- It is important not to try to inject yourself until you have been trained by your healthcare professional.
- See also section 3, “Injecting Ilaris yourself or injecting a patient with Ilaris”.

### Essential preparation

- Find a clean place in which to prepare and give yourself the injection.
- Wash your hands with soap and water, then dry them on a clean towel.
- After removing the vial from the refrigerator, check the expiry date on the vial. Do not use after the expiry date which is stated on the label and carton. The expiry date refers to the last day of that month.
- Let the vial stand unopened for 10 minutes to bring the contents to room temperature. Do not try to heat the vial. Let it warm up on its own.
- Always use new, unopened needles and syringes. Do not touch the needles or the top of the vial.

### Gather together the necessary items

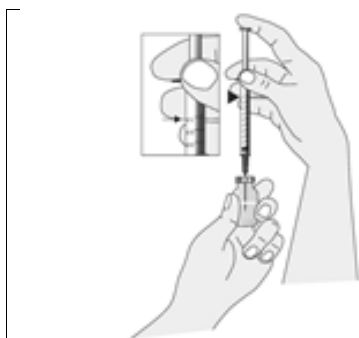
#### Included in the pack

- one vial of Ilaris solution for injection (keep refrigerated)

#### Not included in the pack

- one 1.0 ml syringe
- one needle (such as 18 G or 21 G x 2 inch or similar, as available on the market) to draw up the solution from the vial (“withdrawal needle”).
- one 27 G x 0.5 inch (or similar, as available on the market) needle for injecting (“injection needle”)
- alcohol swabs
- clean, dry cotton swabs
- an adhesive plaster
- a proper disposal container for used needles, syringe and vial (sharps container)

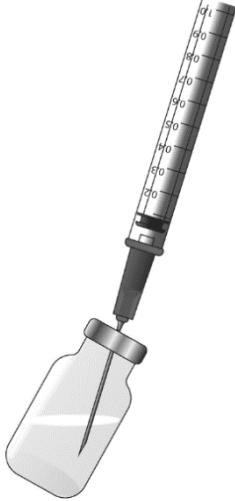
### Preparing the injection





1. Take off the protective cap from the Ilaris vial. Do not touch the vial stopper. Clean the rubber stopper of the vial with an alcohol swab.

Open the wrappers containing the syringe and the withdrawal needle.



- Put the withdrawal needle on the syringe.
- Take off the cap from the withdrawal needle.
- Push the withdrawal needle into the vial of Ilaris solution through the centre of the rubber stopper.

	<ol style="list-style-type: none"> <li>2. Tip the vial to ensure that the required amount of solution can be drawn into the syringe. NOTE: The required amount depends on the dose to be administered. Your healthcare provider will instruct you on the right amount for you.</li> <li>3. Slowly pull the syringe plunger up to the correct mark (amount to be given as per healthcare provider's instructions), filling the syringe with Ilaris solution. If there are air bubbles in the syringe, remove bubbles as instructed by your healthcare provider. Ensure that the correct amount of solution is in the syringe.</li> <li>4. Remove the syringe and withdrawal needle from the vial. (There may be solution remaining in the vial.) Recap the withdrawal needle as instructed by your healthcare provider or pharmacist. Remove the withdrawal needle from the syringe and place it in the sharps container.</li> <li>5. Open the wrapper containing the injection needle and attach the needle to the syringe. Immediately proceed to administering the injection.</li> </ol>
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### Giving the injection

	<ol style="list-style-type: none"> <li>6. Choose an injection site on the upper thigh, abdomen, upper arm or buttocks. Do not use an area that has a rash or broken skin, or is bruised or lumpy. Do not inject into scar tissue as this may mean you do not get all of your medicine. Avoid injecting into a vein.</li> <li>7. Clean the injection site with a new alcohol swab. Allow the area to dry. Uncap the injection needle.</li> <li>8. Gently pinch the skin up at the injection site. Hold the syringe at a 90-degree angle and in a single, smooth motion, push the needle straight down completely into the skin.</li> </ol>
	<ol style="list-style-type: none"> <li>9. Keep the needle all the way in the skin while slowly pushing the syringe plunger down until the barrel is empty. Release the pinched skin and pull the needle straight out. Dispose of the needle and syringe in the sharps container without recapping or removing the needle.</li> </ol>

## After the injection

	<p>10. Do not rub the injection area. If bleeding occurs, apply a clean, dry cotton swab over the area, and press gently for 1 to 2 minutes, or until bleeding stops. Then apply an adhesive plaster.</p>
	<p>11. Safely dispose of needles and syringe in the sharps container or as directed by your healthcare provider or pharmacist. Never re-use syringes or needles.</p> <p>12. Properly dispose of vials containing remaining Ilaris solution (if any) as directed by your healthcare provider or pharmacist. Any unused product or waste material should be disposed of in accordance with local requirements. Never re-use the leftover solution.</p> <p>Keep the sharps container out of reach of children.</p> <p>Dispose of it as directed by your healthcare provider or pharmacist.</p>