

Package leaflet: Information for the patient

Isoket[®] 1 mg/ml Concentrate for solution for injection or infusion
Isosorbide dinitrate
10ml ampoule

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 or nurse.
- If you get any side effects, talk to your doctor or nurse. This includes any possible side effects not listed in this leaflet. See section 4.
- In this leaflet, Isoket 1 mg/ml concentrate for solution for injection or infusion will be called Isoket.

What is in this leaflet:

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

1. What Isoket is and what it is used for

Isoket belongs to a group of medicines called organic nitrates. Organic nitrates work by widening the blood vessels in your heart to allow an increased amount of blood to flow to areas which need it. Isoket is used to treat heart failure (heart problems that can cause shortness of breath or ankle swelling) and angina pectoris.

Angina usually feels like a tight pain in the chest, neck or arm area.

It is also used sometimes during surgical procedures on the heart.

2. What you need to know before you use Isoket

Do not use Isoket if:

- You are allergic to isosorbide dinitrate, other nitrates or any of the other ingredients of this medicine (listed in section 6)
- You suffer from anaemia (reduction in red blood cells which can make the skin pale and cause weakness or breathlessness)
- You have had a brain haemorrhage (bleeding)
- You have had a head injury (head trauma) or raised intracranial pressure (high pressure within your skull)
- You have a low blood volume (hypovolaemia)
- You have very low blood pressure
- Your blood has stopped circulating around your body properly (circulatory failure)
- You have cardiogenic shock (your heart is not delivering enough oxygen around your body)

- You have constrictive pericarditis (inflammation of the sack-like covering of your heart)
- You have cardiac tamponade or hypertrophic obstructive cardiomyopathy (conditions which affect the ability of your heart to function as a pump)
- You have aortic or mitral valve stenosis (narrowing of the heart valves)
- You have an eye disease called glaucoma
- You take sildenafil (“Viagra”) or any other phosphodiesterase inhibitor.
- You take products that contain riociguat, a medicine used in treating pulmonary hypertension.

Warnings and precautions

Talk to your doctor or nurse before using Isoket if:

- You have hypothyroidism (an underactive thyroid gland which can cause tiredness or weight gain)
- You are malnourished (severely underfed)
- You have liver or kidney disease
- You suffer from hypothermia (a very low body temperature)
- You have other heart problems or a family history of heart problems
- You suffer from orthostatic syndrome, (where you may have a rapid heart rate and light-headedness on standing)
- You have an abnormally low level of oxygen in the blood and impaired gas exchange due to lung disease or ischaemic heart disease

Other medicines and Isoket

- **Do not take Isoket with phosphodiesterase inhibitors such as sildenafil (“Viagra”) tadalafil, vardenafil, used for impotence. Using Isoket with these medicines could cause your blood pressure to fall to a dangerously low level.**
- **Do not take Isoket with products that contain riociguat.**

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

- Medicines to lower your blood pressure. They could increase the effect of Isoket and lower your blood pressure too much.
- Monoamine oxidase inhibitors (used to treat depression)
- Tricyclic antidepressants (used to treat depression) and neuroleptics (used to treat anxiety). These may also increase the effect of Isoket.
- Dihydroergotamine (used to treat migraine). This could increase your blood pressure too much.
- Sapropterin used for phenylketonuria (PKU).
- Any other medicine, including medicines obtained without a prescription.

Isoket with alcohol

Do not drink alcohol. It could increase the effect of Isoket and lower your blood pressure too much. If this happens, you may feel dizzy or faint.

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 nurse for advice before using this medicine.

Driving and using machines

Isoket may give you a headache, or make you feel dizzy or tired. If this happens to you, do not drive or operate machinery.

Isoket contains sodium

Isoket 1 mg/ml contains 3.54 mg/ml of sodium and may not be suitable for people on a controlled sodium diet. Tell your doctor or nurse before taking Isoket if this applies to you.

3. How to use Isoket

Important: Your doctor will choose the dose that is right for you. If you have any questions ask your doctor.

Isoket is a concentrate for intravenous infusion (injected into a vein) and intracoronary injection (injected directly into the artery serving the heart).

Isoket is a concentrate and must be diluted before use. Your doctor or nurse will dilute Isoket with either saline (salt water) or glucose solution before it is given to you.

Adults

- When this medicine is given intravenously (injected into a vein), the usual dose will be between 2 mg and 12 mg per hour, although sometimes as much as 20 mg per hour is necessary.
- When used during surgical procedures on the heart the usual dose is 1 mg injected directly into the heart. Further doses may be given if your doctor thinks it necessary.

As this medicine is used in hospital, your heart beat (pulse) and blood pressure will be carefully monitored whilst you are being given Isoket. This is to make sure that your medicine is working properly and that the dose you are taking is right for you.

Use in children

This medicine is not suitable for children.

If you think you have been given too much Isoket

As this medicine will be given to you by a doctor or nurse, it is unlikely that you will be given too much or too little.

An overdose of Isoket may cause your blood pressure to be too low resulting in paleness, sweating, weak pulse, fast heartbeat, light-headedness on standing, headache, weakness, dizziness, feeling sick, being sick and diarrhoea. If you have any concerns about this tell your doctor or nurse.

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.

Stop taking this medicine and seek immediate medical help if you have any of the following symptoms:

- **Swelling of the face or throat, causing difficulty in breathing or wheezing**
- **Fainting or collapse**
- **Swelling or blistering of the skin, mouth, eyes and genitals (Stevens-Johnson syndrome).**

Speak to your doctor or nurse if you have any of the following symptoms:

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

- headache

Common (may affect up to 1 in 10 people)

- dizziness
- drowsiness
- have a faster heart beat (tachycardia)
- weakness
- light-headedness on standing

Uncommon (may affect up to 1 in 100 people)

- feeling sick
- vomiting
- a reduced blood flow to the brain and heart, causing you to feel faint or dizzy
- symptoms of angina (chest pain) may be increased
- skin rash or flushing

Very rare (may affect up to 1 in 10,000 people)

- heartburn

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

- red or scaly skin (exfoliate dermatitis)

Reporting of side effects

If you get any side effects, talk to your doctor or nurse. This includes any possible side effects not listed in this leaflet. You can also report side effects directly via:

United Kingdom

Yellow Card Scheme

Website: www.mhra.gov.uk/yellowcard or search for MHRA Yellow Card in the Google Play or Apple App Store

Ireland

HPRA Pharmacovigilance

Website: www.hpra.ie

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

5. How to store Isoket

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. The expiry date refers to the last day of that month.

This medicine does not require any special storage conditions when it is unopened. Once opened the product should be used immediately.

Do not throw away any medicines via wastewater or household waste. Ask your nurse 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 Isoket contains

- The active substance is isosorbide dinitrate. Isoket 1 mg/ml contains 1 mg of isosorbide dinitrate in each ml of solution.
- The other ingredients are sodium chloride, water for injections and hydrochloric acid and sodium hydroxide for pH adjustment.

What Isoket looks like and contents of the pack

Isoket is a concentrate for solution for infusion and injection. It is a clear solution.

In Ireland

Isoket 1 mg/ml comes in 10 ml glass ampoules.

Each ampoule contains 10 mg of isosorbide dinitrate in 10 ml of solution.

In the UK

Isoket 1 mg/ml comes in 10 ml glass ampoules.

Each ampoule contains 10 mg of isosorbide dinitrate in 10 ml of solution.

Marketing Authorisation Holder

Ireland

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Luxembourg

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If this leaflet is difficult to see or read or you would like it in a different format, please contact:

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**Isoket 1 mg/ml
concentrate for solution for injection of infusion
Isosorbide dinitrate
10 ml ampoule**

The following information is intended for medical or healthcare professionals only.

It supplements the information provided above in Section 3.

**Posology and Method of Administration
Adults, including the elderly population**

Intravenous route

A dose of between 2 mg and 12 mg per hour is usually satisfactory. However, dosages up to 20 mg per hour administered should be adjusted to the patient response.

Intra-coronary route

The usual dose is 1 mg given as a bolus injection prior to balloon inflation. Further doses may be given not exceeding 5 mg within a 30 minute period.

Paediatric population

The safety and efficacy of Isoket has not been established in children.

Method of administration

Isoket is a concentrated solution and must be diluted prior to use. The diluted solution should never be injected directly in the form of bolus except via the intracoronary route prior to balloon inflation.

A dilution of 50% is advocated for intracoronary administration.

Isoket can be administered as an intravenous admixture with a suitable vehicle, see below.

Prepared Isoket admixtures should be given by intravenous infusion or with the aid of a syringe pump incorporating a glass of rigid plastic syringe. During administration the patient's blood pressure and pulse should be closely monitored.

Admixtures are stable for approximately 24 hours at room temperature in the recommended containers.

Open ampoules should be used immediately and any unused drug discarded.

Incompatibilities

Isoket contains isosorbide dinitrate in isotonic solution and is compatible with commonly employed infusion fluids, such as sodium chloride solution, glucose, Ringer's solution and solutions containing albumin. No incompatibilities have so far been demonstrated.

Isoket is compatible with glass infusion bottles and infusion packs made from polyethylene. Isoket may be infused slowly using a syringe pump with glass or plastic syringe. The use of PVC giving sets and containers should be avoided since significant losses of the active ingredient by adsorption can occur.

Example of admixture preparation

To obtain a dose of 6 mg per hour, add 50 ml of Isoket 1 mg/ml to 450 ml of a suitable vehicle, under aseptic conditions.

The resultant admixture (500 ml) contains 100 µg/ml (1 mg/10 ml) isosorbide dinitrate. An infusion rate of 60 ml per hour (equivalent to 60 paediatric microdrops per minute or 20 standard drops per minute) will deliver the required dose of 6 mg per hour.

Should it be necessary to reduce fluid intake, 100 ml of Isoket 0.1% may be diluted to 500 ml using a suitable vehicle. The resultant solution now contains 200 µg/ml (2 mg/10 ml) isosorbide dinitrate. An infusion rate of 30 ml per hour (equivalent to 30 paediatric microdrops per minute or 10 standard drops per minute), will deliver the required dose of 6 mg per hour.

A dilution of 50% is advocated to produce a solution containing 0.5 mg/ml where fluid intake is strictly limited.

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