Read all of this leaflet carefully before you start receiving 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.
- If you get any side effects, talk to your doctor, pharmacist or nurse. This includes any possible side effects not listed in this leaflet.

What is in this leaflet
1. What Erwinase is and what it is used for.
2. What you need to know before you take Erwinase.
3. How to take Erwinase.
4. Possible side effects.
5. How to store Erwinase.
6. Contents of the pack and other information.

1. What ERWINASE is and what it is used for
Erwinase contains asparaginase from Erwinia chrysanthemi.

Erwinase is an anti-blood-cell-cancer medicine.

It is used in combination with other anticancerous agents to treat Acute Lymphoblastic Leukaemia, a type of blood-cell-cancer.

2. What you need to know before you receive ERWINASE

Do not use Erwinase:
- If you are allergic (hypersensitive) to crisantaspase (Erwinia L-asparaginase) or any of the other ingredients of this medicine (listed in section 6).
- If you have a history of pancreas problems (acute pancreatitis).
- If you are having a baby, trying to have a baby or if you are breast-feeding.

Warnings and precautions
- Crisantaspase (Erwinia L-asparaginase) is a substance which your body may become sensitive to after repeated treatments.
- Treatment with Erwinase can sometimes affect the results of certain blood or urine tests. Your doctor will be aware of this and may carry out routine blood tests before and during your treatment to check for any changes.
- Treatment with Erwinase may make you more susceptible to infection.
- Posterior reversible encephalopathy syndrome (characterised by headache, confusion, seizures and visual loss) may require blood-pressure lowering medicines and in case of seizure, anti-epileptic treatment.
Taking other medicines and Erwinase

Tell your doctor if you are taking or have recently taken or might take any other medicines, including medicines obtained without a prescription.

We recommend to your doctor that Erwinase should not be mixed with other medicines although you will probably be given other medicines before, during or after Erwinase treatment as part of your course of therapy.

Pregnancy and breast-feeding and fertility
You should not take Erwinase if you are having a baby, trying to have a baby or if you are breast-feeding.

Erwinase contains glucose and sodium
Erwinase contains 5mg glucose per bottle. This should be taken into account in patients with diabetes mellitus.
This medicinal product contains less than 1 mmol sodium (23 mg) per dose, i.e. essentially ‘sodium- free’.

3. How to use ERWINASE

Your doctor will have the latest information on the recommended dosage of Erwinase and will decide what dose to administer, how often you will be given Erwinase and for how long.

Erwinase should be administered into the bloodstream (intravenous) by direct injection, by injection into a muscle (intramuscular) or by injection just under the skin (subcutaneous).

Your treatment will normally be given without interruption. If the treatment has to be stopped, it will probably be started again using a lower dose which can be increased over five days.

If you take more Erwinase than you should
Your doctor will monitor your response and condition to determine what Erwinase treatment is needed. However, if you are concerned that you have been given too much Erwinase, contact your doctor or another healthcare professional immediately.

If you forget to take Erwinase
Your doctor will monitor your response and condition to determine what Erwinase treatment is needed. However, if you are concerned that you have missed a dose, contact your doctor or another healthcare professional immediately.

If you stop taking Erwinase
There are no known withdrawal symptoms.

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, Erwinase can cause side effects, although not everybody gets them.

Erwinase will be given under strict medical supervision and your doctor may give you other medicines to treat these side effects. Most of the side effects will stop once you stop taking Erwinase.

The two most frequent side effects are:
- Allergic reactions (hypersensitivity). This may include redness or inflammation of the skin, decrease in blood pressure, swelling of the face and/or the throat and difficulty breathing. You may require emergency treatment and should seek medical advice immediately. Treatment should be discontinued.
- Coagulation disorders. Asparaginase can increase the risk of your blood clotting, which may block major blood vessels in the brain or heart, or may cause bleeding.

Common (may affect up to 1 in 10 people) side effects include:
- Pancreas disorders with increase of the blood glucose level or other changes in blood tests
- Diarrhoea, nausea, vomiting or abdominal pain
- Unusual blood test results in liver enzymes
- Pale skin
- Fits (convulsions), drowsiness, confusion, dizziness, tiredness or headache
- High temperature, chills, generalised pain, swelling of the legs, and injection site reactions (pain, redness, bruising, and swelling).

Uncommon (may affect up to 1 in 100 people) side effects include:
- Increase in blood levels of sugars and lipids (fats)
- Shortness of breath or stopping breathing
- Runny nose

Rare (may affect up to 1 in 1,000 people) side effects include:
- Complication of diabetes
- Depressed level of consciousness or coma, difficulty speaking, impaired movement
- Heart attack, usually secondary to other adverse effects
- Liver failure
- Posterior reversible encephalopathy syndrome (a condition characterized by headache, confusion, seizures and visual loss).

Very rare (may affect up to 1 in 10,000 people) side effects include:
- Infection or septic shock (including life threatening)
- Low white blood cells as manifested by increased susceptibility to infection
- Severe inflammation of the pancreas
- Difficulty swallowing
- Muscle pain, arthritis

Other side effects with an unknown frequency include:
- Anaemia, bone marrow depression
- High blood levels of ammonia
- High or low blood pressure, flushing
- Liver disorders
- Pain in arms and legs
- Reduced renal function

**Reporting of suspected adverse reactions**

Reporting suspected adverse reactions after authorisation of the medicinal product is important. It allows continued monitoring of the benefit/risk balance of the medicinal product. Healthcare professionals are asked to report any suspected adverse reactions via HPRA Pharmacovigilance, Earlsfort Terrace, IRL - Dublin 2; Tel: +353 1 6764971; Fax: +353 1 6762517. Website: www.hpra.ie; E-mail: medsafety@hpра.ie.

5. **How to store ERWINASE**

Keep this medicine out of the sight and reach of children.
Do not use this medicine after the expiry data which is stated on the carton and the vial after Exp. The expiry date refers to the last day of the month.

Store in a refrigerator (2°C to 8°C).

From a microbiological point of view, the reconstituted product should be used immediately. If a delay of more than 15 minutes between reconstitution and administration is unavoidable, the solution should be withdrawn into a polypropylene syringe for the period of the delay. The solution should be used within 4 hours.

The reconstituted product should be stored below 25°C.

6. Contents of the pack and other information

What ERWINASE contains

What Erwinase contains
The active substance is crisantaspase (Asparaginase from *Erwinia chrysanthemi*; *Erwinia* L-asparaginase). Each vial contains 10,000 units of crisantaspase.

The other ingredients are sodium chloride and glucose monohydrate.

What Erwinase looks like and contents of the pack
Powder for solution for injection.
Erwinase comes as a white powder in a glass bottle.
Each box contains 5 vials.

Marketing Authorisation Holder and Manufacturer

Marketing Authorisation Holder

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Erwinase is a registered trademark of Porton Biopharma Limited, UK

This leaflet was last revised in March 2019
The following information is intended for medical or healthcare professionals only:

The contents of each vial should be reconstituted in 1 ml to 2 ml of sodium chloride (0.9%) solution for injection. Slowly add the reconstitution solution against the inner vial wall, do not squirt directly onto or into the powder. Allow the content to dissolve by gentle mixing or swirling maintaining the vial in an upright position. Avoid froth formation due to excessive or vigorous shaking.

The solution should be clear without any particles. Fine crystalline or thread-like wisps of protein aggregates may be visible if shaking is excessive resulting in visible foaming. If there are any visible particles or protein aggregates present the reconstituted solution should be rejected.

From a microbiological point of view, the reconstituted product should be used immediately. If a delay of more than 15 minutes between reconstitution and administration is unavoidable, the solution should be withdrawn into a polypropylene syringe for the period of the delay. The solution should be used within 4 hours. The reconstituted product should be stored below 25°C.

When preparing or administering Erwinase the fact should be taken into account that it can be sensitising. Inhalation of the powder or the solution should be avoided. In the event of it coming into contact with the skin or mucous membranes, in particular with the eyes, these should be rinsed with plenty of water for at least 15 minutes.

Any unused product or waste material should be disposed in accordance with local requirements.