swissmedic

Summary report on authorisation dated 1 November 2024

Enrylaze® (active substance: crisantaspase)

Authorisation in Switzerland: 18 April 2024

Solution for injection as part of combination chemotherapy for the treatment of acute lymphoblastic leukaemia (ALL) and lymphoblastic lymphoma (LBL) in adults and children aged 1 year and older who have developed hypersensitivity to *E. coli*-derived asparaginase

About the medicinal product

Enrylaze, containing the active substance crisantaspase, is used to treat acute lymphoblastic leukaemia (ALL) and lymphoblastic lymphoma (LBL) in adults and children. It is used as part of combination chemotherapy.

ALL and LBL are forms of cancer that are more common in children, but which can also occur in adults. Asparaginase, an enzyme that inhibits cancer cell growth, is frequently used to treat these conditions. However, some patients become hypersensitive to asparaginase, which is obtained from *Escherichia coli* (*E. coli*) bacteria. This hypersensitivity can lead to treatment having to be stopped, which can jeopardise a successful outcome.

Crisantaspase, the active substance in Enrylaze, is a recombinant L-asparaginase obtained from *Erwinia chrysanthemi* bacteria.

Since ALL and LBL are rare, life-threatening diseases, the medicine has been authorised as an orphan drug. "Orphan drug" is a designation given to medicinal products for rare diseases.

Enrylaze was authorised as part of "Project Orbis". Project Orbis is a programme for promising cancer treatments coordinated by the FDA, the US regulatory authority. It provides a framework for the concurrent submission and review of cancer medicines by several international partner authorities in various countries. The ultimate aim is to give patients faster access to innovative cancer treatments. Currently, the authorisation authorities in Australia (TGA), Brazil (ANVISA), Israel (MOH), Canada (HC), Singapore (HSA), Switzerland (Swissmedic), and the United Kingdom (MHRA) are represented in Project Orbis.

Mode of action

The active substance in Enrylaze, crisantaspase, is an enzyme that reduces blood levels of the amino acid L-asparagine by converting it into L-aspartic acid. Many cancer cells rely on external supplies of L-asparagine to survive since they are unable to

produce adequate quantities of it themselves.

Administration

Enrylaze is a prescription-only medicinal product that is subject to prescribing restrictions. It is recommended that Enrylaze be prescribed and administered only by doctors and other medical professionals who are familiar with the administration of antineoplastic medicinal products. It should only be administered in hospitals with suitable resuscitation equipment. Enrylaze is administered as a solution for injection.

Enrylaze is generally administered with other antineoplastic medicinal products as part of combination chemotherapy. It is administered intramuscularly (into the muscle). The recommended dosage is:

- 25 mg/m² every 48 hours or
- 25 mg/m² each Monday and Wednesday morning followed by 50 mg/m² each Friday afternoon, 52 to 56 hours after the last dose on Wednesday morning.

Treatment is initiated and supervised by a medical professional. Patients should be closely monitored throughout the entire course of treatment.

Efficacy

The efficacy of Enrylaze was investigated in 228 children and adults with ALL and LBL in study JZP458-201.
The patients had previously developed hypersensitivity to asparaginase derived from *E. coli*.

The study showed that Enrylaze achieved sufficient serum asparaginase activity to guarantee a therapeutic effect in most patients. The majority of patients were able to complete their intended treatment by continuing asparaginase therapy with Enrylaze. This is important for a successful outcome.

Precautions, undesirable effects, & risks

Enrylaze must not be used in those who are hypersensitive to the active substance or any of the excipients.

The most frequent adverse effects (affecting more than 1 in 10 users) are anaemia (deficiency of red blood cells), neutropenia (low count of a particular group of white blood cells), thrombocytopenia (low platelet count), decreased appetite, hyperglycaemia (elevated blood glucose level), hypoalbuminaemia (reduced level of protein in the blood), anxiety, headaches, vomiting, nausea, stomach pain, diarrhoea, pain in the extremities, fatigue, fever, contusion (bruising), elevated transaminases (high liver enzyme values), low leukocyte (white blood cell) count, weight loss, elevated levels of bilirubin[1] in the blood, and immune hypersensitivity to the medicinal product.

All precautions, risks, and other possible undesirable effects are listed in the Information for healthcare professionals.

[1] Bilirubin: bilirubin forms as a result of the breakdown of the blood pigment haemoglobin, and an elevated bilirubin level in the blood may be a sign of liver damage.

Why the medicinal product has been authorised

The clinical study showed that Enrylaze is effective and safe and maintains the levels of asparaginase activity in the blood that are necessary to treat the cancer.
Treatment with Enrylaze thus represents an important therapeutic option, and is intended specifically for patients who are denied adequate treatment because they cannot tolerate conventional asparaginase medicinal products.

Taking all the risks and precautions into account, and based on the available data, the benefits of Enrylaze outweigh the risks. Swissmedic has therefore authorised the medicinal product Enrylaze, containing the active substance crisantaspase, for use in Switzerland.

Further information on the medicinal product

Information for healthcare professionals: Enrylaze® – Information for healthcare professionals

Healthcare professionals can answer any further questions.

The date of revision of this text corresponds to that of the SwissPAR. New information concerning the authorised medicinal product in question will not be incorporated into the Summary report on authorisation.

Swissmedic monitors medicinal products authorised in Switzerland. Swissmedic initiates the necessary action in the event of newly discovered adverse drug reactions or other safety-relevant signals. New findings that could impair the quality, efficacy, or safety of this medicinal product are recorded and published by Swissmedic. If necessary, the medicinal product information is adapted.