

3.7.5 Crisantaspase (Rylaze) Asparaginase Module

Original Date	Next Review Date	Last Revision Date(s)
February 2024	August 2028	August 2025

Classification

Antineoplastic, Miscellaneous

Indications, Contraindications and Dosing

Indications

Acute lymphoblastic leukemia and lymphoma

Crisantaspase is indicated for treatment of Acute Lymphoblastic Leukemia and Lymphoblastic Lymphoma patients who are intolerant of front line asparaginase therapy with pegaspargase (Oncaspar) or calaspargase pegol (Asparlas) due to allergic reactions or silent inactivation noted by Therapeutic Drug Monitoring (TDM).

Contraindications

- Known serious allergy to Erwinia Asparaginase
- All asparaginase products are contraindicated in patients with a history of severe asparaginase-induced pancreatitis with prior therapy
- Significant asparaginase related thrombosis or hemorrhage may also lead to relative contraindication

Reimbursement

- Per Vial reimbursement is provided via the eClaims system of the New Drug Funding Program (NDFP) from CCO/Ontario Health

Dosing

Currently, only intramuscular dosing is approved by health Canada. Unlike other alternative asparaginase products (i.e. Erwinia Asparaginase) the dosing is VARIABLE based on day:

Monday: 25mg/m²

Wednesday 25mg/m²

Friday 50mg/m²

*Special care should be taken to ensure any pre-printed orders or electronic order sets have the proper dose associated with each day.

Pharmacy Considerations

Reconstitution	Vials come ready to inject, no reconstitution required.
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Stability	<p>Crisantaspase should be administered within 4 hours of being drawn into a syringe.</p> <p>The Health Canada approved product monograph for Rylaze mandates a maximum intramuscular (IM) injection volume of 2 mL per site.</p> <p>NOTE: Many tertiary hospitals administer Rylaze in aliquots up to 3 mL per IM site based on institutional practices.</p> <p>While 2 mL per IM site remains the guideline referenced in the monograph, POGO acknowledges this variation and supports site-specific discretion. If the required dose exceeds the chosen maximum volume per site, it should be divided across multiple injection sites.</p>
Pre-Medications	<p>Please consult the specialized childhood cancer program regarding pre-medication as it may be given prior to administration to decrease risk of allergic reaction.</p>

Pediatric Administration

Sub-cutaneous	NO
Intramuscular (IM)	<p>YES, inject into a large muscle.</p> <p>Avoid injection in scar tissue or areas that are reddened, inflamed or swollen areas.</p>
Intravenous Direct (IV)	NO
IV Intermittent Infusion	Not currently Health Canada approved
IV Continuous Infusion	NO

THIS MEDICATION SHOULD ONLY BE ADMINISTERED BY A NURSE WITH SPECIFIC TRAINING IN THE ADMINISTRATION OF CHEMOTHERAPY (I.E. APHON TRAINING).

Nursing Considerations

- NON-VESICANT drug
- Baseline CBC, temperature, heart rate, respiratory rate and blood pressure
- Not presently Health Canada approved to be given IV. Any plans to administer IV should be discussed in advance with satellite local leadership and POGO Staff
- A hypersensitivity reaction can occur immediately. Symptoms may include hypotension, dyspnea, rash, urticaria, vomiting, fever and chills. Have medications to treat hypersensitivity reactions readily available at each administration, including epinephrine, antihistamines, oxygen and steroids.
- In general, transfusion should be avoided on days Crisantaspase is administered. If circumstances don't allow for delay in transfusion (i.e. platelets needed to facilitate IM injection) please contact the referring team to discuss options.
- Platelet count must be >20,000 for IM administration.
- Patient should remain in the clinic for a minimum of one hour following IM/IV administration.

- Repeat vital signs. Provide family education prior to discharge regarding delayed reaction, side effects and where to report issues.

Potential Hazards of Parenteral Administration

Immediate (within a few minutes to hours):

- Anaphylaxis, other allergic reactions (urticaria, pruritus, respiratory distress, hypotension, chills, fever)
- Nausea and vomiting
- Pain/bruising at injection site – hold site at least 5 minutes after injection or until bleeding stops.

Delayed (within a few days to weeks)

- Hepatotoxicity – hypoalbuminemia, increased transaminases, decreased fibrinogen, clotting factors, antithrombin (risk of hemorrhage or thrombosis possible)
- Hyperglycemia – monitor urine/blood glucose. May require insulin.
- Pancreatitis – elevated serum amylase, assess for abdominal tenderness
- Thrombosis and bleeding (CNS and non-CNS)

Specialized childhood cancer program should be notified of adverse effects of medication.

Disclaimer: This document is meant for guidance. Nothing in this document replaces clinical judgement or dictates treatment of individual patients. The information found here will be reviewed every two years.

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Record of Updates

Version Number	Date of Effect	Summary of Revisions
2	8/01/2025	<ul style="list-style-type: none"> • Revised version posted.