Clinical Policy: Erwinia Asparaginase (Erwinaze)

Reference Number: PA.CP.PHAR.301
Effective Date: 01/18
Last Review Date: 01/19

Coding Implications
Revision Log

Description
Asparaginase *Erwinia chrysanthemi* (Erwinaze®) is an asparagine specific enzyme.

FDA Approved Indication(s)
Erwinaze is indicated as a component of a multi-agent chemotherapeutic regimen for the treatment of patients with acute lymphoblastic leukemia (ALL) who have developed hypersensitivity to *E. coli*-derived asparaginase.

Policy/Criteria
It is the policy of Pennsylvania Health and Wellness ® that Erwinaze is **medically necessary** when the following criteria are met:

I. Initial Approval Criteria

A. Acute Lymphoblastic Leukemia (must meet all):

1. Diagnosis of acute lymphoblastic leukemia (ALL);
2. Prescribed by or in consultation with an oncologist or hematologist;
3. Prescribed as a component of a multi-agent chemotherapeutic regimen;
4. Member has developed hypersensitivity to an *E. coli* derived asparaginase product (Elspar® - off-market) or pegaspargase (Oncaspar®);:
5. Request meets one of the following (a or b):
   a. Dose should not exceed 25,000 International Units per m^2 administered three times per week;
   b. Dose is supported by practice guidelines or peer-reviewed literature for the relevant off-label use *(prescriber must submit supporting evidence).*

Approval duration: 3 months

B. Other diagnoses/indications: Refer to PA.CP.PMN.53

II. Continued Approval

A. Acute Lymphoblastic Leukemia (must meet all)**:**

1. Currently receiving medication via Pennsylvania Health and Wellness benefit or member has previously met all initial approval criteria; or the Continuity of Care policy (PA.LTSS.PHAR.01) applies;
2. Member is responding positively to therapy;
3. If request is for a dose increase, request meets one of the following (a or b):
   a. New dose should not exceed 25,000 International Units per m^2 administered three times per week;
   b. New dose is supported by practice guidelines or peer-reviewed literature for the relevant off-label use *(prescriber must submit supporting evidence).*

Approval duration: 6 months

B. Other diagnoses/indications (must meet 1 or 2)**:**

1. Currently receiving medication via Pennsylvania Health and Wellness benefit and documentation supports positive response to therapy; or the Continuity of Care policy (PA.LTSS.PHAR.01) applies.
   Approval duration: Duration of request or 6 months (whichever is less); or

2. Refer to PA.CP.CP.PMN.53

Background

Description/Mechanism of Action:

Erwinaze (asparaginase Erwinia chrysanthemi) contains an asparagine specific enzyme derived from Erwinia chrysanthemi. Asparaginase *Erwinia chrysanthemi* catalyzes the deamidation of asparagine to aspartic acid and ammonia, resulting in a reduction in circulating levels of asparagine. The mechanism of action of Erwinaze is thought to be based on the inability of leukemic cells to synthesize asparagine due to lack of asparagine synthetase activity, resulting in cytotoxicity specific for leukemic cells that depend on an exogenous source of amino acid asparagine for their protein metabolism and survival.

III. Appendices/General Information

Appendix A: Abbreviation/Acronym Key

ALL: acute lymphoblastic leukemia
FDA: Food and Drug Administration

Appendix B: Therapeutic Alternatives

This table provides a listing of preferred alternative therapy recommended in the approval criteria. The drugs listed here may not be a formulary agent for all relevant lines of business and may require prior authorization.

Drug Name	Dosing Regimen	Dose Limit/ Maximum Dose
Oncaspar (pegaspargase)	2,500 International Units/m^2 IM or IV, administered no more frequently than every 14 days, as part of a multi-agent chemotherapeutic regimen.	Varies

Therapeutic alternatives are listed as Brand name® (generic) when the drug is available by brand name only and generic (Brand name®) when the drug is available by both brand and generic.

Appendix C: Contraindications/Boxed Warnings

- Contraindication(s): History of 1) serious hypersensitivity reactions to Erwinaze, including anaphylaxis, 2) serious pancreatitis with prior L-asparaginase therapy, 3) serious thrombosis with prior L-asparaginase therapy, 4) serious hemorrhagic events with prior L-asparaginase therapy.
- Boxed warning(s): None reported.

IV. Dosage and Administration

Indication	Dosing Regimen	Maximum Dose
ALL	To substitute for pegaspargase: The recommended dose for each planned dose of pegaspargase is 25,000 International Units/m^2 administered IM or IV TIW (Monday/Wednesday/Friday) for six doses.	25,000 IU/m^2/dose

V. Product Availability

10,000 International Units lyophilized powder per vial

Coding Implications

Codes referenced in this clinical policy are for informational purposes only. Inclusion or exclusion of any codes does not guarantee coverage. Providers should reference the most up-to-date sources of professional coding guidance prior to the submission of claims for reimbursement of covered services.

HCPCS Codes	Description
J9019	Injection, asparaginase, (Erwinaze), 1,000 IU

Reviews, Revisions, and Approvals	Date	Approval Date
Combined FDA approved criteria and NCCN recommendations, FDA indication covers both. References reviewed and updated	02/18	
1Q 2019 annual review; specialist added; per Recordati Rare Diseases, who acquired Elspar from Lundbeck in January 2013, Elspar was discontinued in 2012, there are currently no plans to reintroduce Elspar, there is no residual Elspar supply remaining on the current market, and Recordati Rare Diseases has not provided Elspar to any other territory within the global market; references reviewed and updated.	01/19	

References

1. Erwinaze Prescribing Information. Palo Alto, CA: Jazz Pharmaceuticals, Inc.; March 2016. Available at http://www.erwinaze.com. Accessed October 17, 2018.
2. Oncaspar Prescribing Information. Gaithersburg, MD: Sigma-Tau Pharmaceuticals, Inc.; May 2014. Available at https://www.shirecontent.com/PI/PDFs/ONCASPAR_USA_ENG.pdf. Accessed October 23, 2018.
3. Asparaginase Erwinia chrysanthemi. National Comprehensive Cancer Network Drugs and Biologics Compendium. Available at ww.nccn.org. Accessed October 17, 2018.
4. Acute lymphoblastic leukemia (Version 1.2018). National Comprehensive Cancer Network Guidelines. Available at www.nccn.org. Accessed October 17, 2018.