

Clinical Policy: Pegzilarginase-nbln (Loargys)

Reference Number: PA.CP.PHAR.587

Effective Date: 08/2026

Last Review Date: 07/2026

Description

Pegzilarginase-nbln (Loargys[®]) is a recombinant human arginase 1 enzyme.

FDA Approved Indication(s)

Loargys is indicated for the treatment of hyperargininemia in adult and pediatric patients 2 years of age and older with arginase 1 deficiency (ARG1-D), in conjunction with dietary protein restriction.

This indication is approved under accelerated approval based on reduction of plasma arginine. Continued approval for this indication may be contingent upon verification and description of clinical benefit in a confirmatory trial.

Policy/Criteria

Provider must submit documentation (such as office chart notes, lab results or other clinical information) supporting that member has met all approval criteria.

It is the policy of PA Health & Wellness[®] that Loargys is **medically necessary** when the following criteria are met:

I. Initial Approval Criteria

A. Arginase 1 Deficiency (must meet all):

1. Diagnosis of ARG1-D confirmed by one of the following (a or b):
 - a. Genetic confirmation of an *ARG1* pathogenic variant;
 - b. Documentation of reduced arginase enzyme activity in red blood cells;
2. Prescribed by or in consultation with a neurologist or physician experienced in treating metabolic disorders;
3. Age $\geq$ 2 years;
4. Provider attestation that member is currently adherent to a protein-restricted diet and will continue this diet during treatment with Loargys;
5. Documentation of plasma arginine level from within the last 3 months;
6. Documentation of member's current weight in kg;
7. Dose does not exceed 0.2 mg/kg once weekly.

Approval duration: 12 months

B. Other diagnoses/indications

1. Refer to the off-label use policy if diagnosis is NOT specifically listed under section III (Diagnoses/Indications for which coverage is NOT authorized): PA.CP.PMN.53

II. Continued Therapy

A. Arginase 1 Deficiency (must meet all):

1. Currently receiving medication via PA Health & Wellness benefit and documentation supports positive response to therapy or the Continuity of Care policy (PA.PHARM.01) applies;
2. Member is responding positively to therapy as evidenced by a reduction in plasma arginine levels since initiation of therapy;
3. Provider attestation that member has been adherent to a protein-restricted diet and will continue this diet during treatment with Loargys;
4. If request is for a dose increase, new dose does not exceed 0.2 mg/kg once weekly.

Approval duration: 12 months

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

1. Currently receiving medication via PA Health & Wellness benefit and documentation supports positive response to therapy or the Continuity of Care policy (PA.PHARM.01) applies.

Approval duration: Duration of request or 12 months (whichever is less); or

2. Refer to the off-label use policy if diagnosis is NOT specifically listed under section III (Diagnoses/Indications for which coverage is NOT authorized): PA.CP.PMN.53

III. Diagnoses/Indications for which coverage is NOT authorized:

- A. Non-FDA approved indications, which are not addressed in this policy, unless there is sufficient documentation of efficacy and safety according to the off label use policies – PA.CP.PMN.53

IV. Appendices/General Information

Appendix A: Abbreviation/Acronym Key

ARG1-D: arginase 1 deficiency

FDA: Food and Drug Administration

Appendix B: Therapeutic Alternatives

Not applicable

Appendix C: Contraindications/Boxed Warnings

- Contraindication(s): none reported
- Boxed warning(s): hypersensitivity reactions including anaphylaxis

V. Dosage and Administration

Indication	Dosing Regimen	Maximum Dose
ARG1-D	<u>IV</u>: Recommended starting dose of 0.1 mg/kg IV once weekly. To maximize the time within the normal range of 40 to 115 micromolar (μM), dose adjustments should be aimed at achieving a pre-dose level of plasma arginine near the upper limit of normal. After four weeks of administration, measure pre-dose plasma arginine (168 hours after prior	0.2 mg/kg/week

Indication	Dosing Regimen	Maximum Dose
	dose) to determine the need for dosage adjustment. If two consecutive weekly pre-dose plasma arginine measurements are not in the desired therapeutic range, increase or decrease the weekly dosage as follows: • < 50 µM: Reduce the weekly dosage by 0.05 mg/kg. • > 150 µM: Increase the weekly dosage by 0.05 mg/kg. <u>SC:</u> After 8 weeks of once weekly IV administration, patients may be switched to once weekly SC dosing at the same dosage of IV therapy.	

VI. Product Availability

Single-dose vials for injection: 2 mg/0.4 mL, 5 mg/ML

VII. References

1. Loargys Prescribing Information. Chicago, IL: Immedica Pharma US Inc.; February 2026. Available at: <https://www.immedicaus.com/sites/default/files/pr/highlights-of-prescribing-information-loargys.pdf>. Accessed May 11, 2026.
2. Russo RS, Gasperini S, Bubb G, et al. Efficacy and safety of pegzilarginase in arginase 1 deficiency (PEACE): a phase 3, randomized, double-blind, placebo-controlled, multi-centre trial. *EClinicalMedicine*. 2024;68:102405.
3. Haberle J, Burlina A, Chakrapani A, et al. Suggested guidelines for the diagnosis and management of urea cycle disorders: first revision. *J Inherit Metab Dis*. 2019;42(6):1192-1230. doi:10.1002/jimd.12100.
4. Sun A, Crombez EA, Wong D. Arginase deficiency. 2004 Oct 21 [Updated 2020 May 28]. *GeneReviews*® [Internet]. Seattle (WA): University of Washington, Seattle; 1993-2026.

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
C9399	Unclassified drugs or biologicals
J3590	Unclassified biologics

Reviews, Revisions, and Approvals	Date
Policy created	07/2026