VENTURA COUNTY
HEALTH CARE PLAN

Prior Authorization DRUG Guidelines

ALDURAZYME (Laronidase)

Effective Date: 1/28/14
Date Developed: 1/28/14 by Catherine Sanders, MD
Last Approval Date: 1/26/16, 1/24/17, 1/23/18, 1/22/19
(Archived 1/22/19)

Aldurazyme is a recombinant (replacement) form of α-L-iduronidase derived from Chinese hamster cells. α-L-iduronidase is an enzyme needed to break down endogenous glycosaminoglycans (GAGs) within lysosomes. A deficiency of α-L-iduronidase leads to an accumulation of GAGs, causing cellular, tissue, and organ dysfunction as seen in the lysosomal storage disorder of Mucopolysaccharidosis I (MPS I). Improved pulmonary function and walking capacity have been demonstrated with the administration of laronidase to patients with Hurler, Hurler-Scheie, or Scheie (with moderate-to-severe symptoms) forms of MPS.

Pre-Authorization Criteria:
Aldurazyme is used in the treatment of Hurler and Hurler-Scheie forms of mucopolysaccharidosis I (MPS I) and Scheie forms of mucopolysccharidosis I in patients with moderate-to-severe symptoms.

VCHCP requires that Aldurazyme be prescribed by, or in consultation with, a physician specializing in the condition being treated, due to the special skills required for evaluation and diagnosis of these patients.

Dosing: Adult:
Note: Premedicate with antipyretic and/or antihistamines 1 hour prior to start of infusion.
MPS I (Hurler syndrome, Hurler-Scheie, and Scheie forms): I.V.: 0.58 mg/kg once weekly; dose should be rounded up to the nearest whole vial

Dosing: Pediatric:
Note: Premedicate with antipyretic and/or antihistamines 1 hour prior to start of infusion.
MPS I (Hurler syndrome, Hurler-Scheie, and Scheie forms): Children ≥6 months: I.V.: 0.58 mg/kg once weekly; dose should be rounded up to the nearest whole vial

Dosing: Geriatric:
Refer to adult dosing.

Dosing: Renal Impairment:
No dosage adjustment provided in manufacturer's labeling.

Dosing: Hepatic Impairment:
No dosage adjustment provided in manufacturer's labeling.

Dosage Forms: U.S.:

Excipient information presented when available (limited, particularly for generics); consult specific product labeling.
Solution, Intravenous:
Aldurazyme: 2.9 mg/5 mL (5 mL) [contains mouse protein (murine) (hamster), polysorbate 80]

Generic Equivalent Available: U.S.-No

Administration:
Administer using an infusion set with low protein-binding and 0.2 micrometer in-line filter. Antipyretics and/or antihistamines should be administered 60 minutes prior to infusion. Volume and infusion rate are based on body weight; deliver infusion over ~3-4 hours. Vital signs should be monitored every 15 minutes, if stable; rate may be increased as follows:
≤20 kg: Total infusion volume: 100 mL
2 mL/hour for 15 minutes
4 mL/hour for 15 minutes
8 mL/hour for 15 minutes
16 mL/hour for 15 minutes
32 mL/hour for remainder of infusion (~3 hours)
>20 kg: Total infusion volume: 250 mL
5 mL/hour for 15 minutes
10 mL/hour for 15 minutes
20 mL/hour for 15 minutes
40 mL/hour for 15 minutes
80 mL/hour for remainder of infusion (~3 hours)
Note: A total infusion volume of 100 mL NS and slower infusion rate may be considered for patients with cardiac or respiratory compromise who weigh up to 30 kg. In case of infusion-related reaction in any patient, decrease the rate of infusion, temporarily discontinue the infusion, and/or administer additional antipyretics/antihistamines.

Compatibility-Stable in NS.

Registry:
A patient registry has been established and all patients are encouraged to participate. Registry information may be obtained at www.MPSIregistry.com or by calling 800-745-4447.

Exceptions:
Laronidase has not been studied in patients with mild symptoms of the Scheie form of MPS I.
Laronidase is not indicated for the CNS manifestations of MPS I.

Adverse Reactions:
>10%: flushing, poor venous access, fever, chills, rash, antibody development, injection site reaction, hyper-reflexia, paresthesia, otitis media, upper respiratory tract infection.
Other Serious Less Common Reactions: anaphylaxis, infusion reaction, severe, hypersensitivity reaction.

U.S.BOXED WARNING:
Life threatening anaphylactic reactions have occurred during infusion; administer where appropriate medical support available.

Additional monitoring required in patients with compromised cardiac or respiratory function due to risk of serious acute exacerbation of their condition from infusion reactions.

References:

1. Kakkis ED, Muenzer J, Tiller GE, et al, "Enzyme-Replacement Therapy in Mucopolysaccharidosis I," *N Engl J Med*, 2001, 18;344(3):182-8. [PubMed 11172140]
2. Wraith JE, Beck M, Lane R, et al, "Enzyme Replacement Therapy in Patients Who Have Mucopolysaccharidosis I and Are Younger Than 5 Years: Results of a Multinational Study of Recombinant Human {alpha}-L-Iduronidase (Laronidase)," *Pediatrics*, 2007, 120(1):e37-46. [PubMed 17606547]
3. www.uptodate.com: Laronidase: Drug Information
4. www.epocrates.com: Aldurazyme Drug information

REVISION HISTORY:

Date Reviewed/No Updates: 1/13/15 by C. Sanders, MD
Date Approved by P&T Committee: 1/27/15
Date Reviewed/No Updates: 1/26/16 by C. Sanders, MD; R. Sterling, MD
Date Approved by P&T Committee: 1/26/16
Date Reviewed/No Updates: 1/24/17 by C. Sanders, MD; R. Sterling, MD
Date Approved by P&T Committee: 1/24/17
Date Reviewed/No Updates: 1/23/18 by C. Sanders, MD; R. Sterling, MD
Date Approved by P&T Committee: 1/23/18
Date Reviewed/Archived: 1/22/19 by C. Sanders, MD; R. Sterling, MD
Date Approved by P&T Committee: 1/22/19

Revision Date	Content Revised (Yes/No)	Contributors	Review/Revision Notes
1/24/17	No	Catherine Sanders, MD; Robert Sterling, MD	Annual review
1/23/18	No	Catherine Sanders, MD; Robert Sterling, MD	Annual review
1/22/19	No	Catherine Sanders, MD; Robert Sterling, MD	Archived – check MCG