SmartPA Criteria Proposal

Drug/Drug Class:	Oxlumo Clinical Edit
First Implementation Date:	July 29, 2021
Revised Date:	August 3, 2023
Prepared for:	MO HealthNet
Prepared by:	MO HealthNet/Conduent
Criteria Status:	☒Existing Criteria ☐Revision of Existing Criteria ☐New Criteria

Executive Summary

Purpose: Ensure appropriate utilization and control of Oxlumo™ (lumasiran)

Why Issue Selected: Oxlumo™ (lumasiran) was FDA approved on November 23, 2020 and is the first FDA approved therapy for primary hyperoxaluria type 1 (PH1). An estimated 1 to 3 people per million in North America and Europe are affected by PH1. PH1 is caused by a mutation in the alanine-glyoxylate aminotransferase (AGXT) gene, which encodes the alanine glyoxylate aminotransferase (AGT) enzyme. This mutation prevents the breakdown of glyoxylate, causing it to convert to oxalate and accumulate in the kidney and urinary tract, where it can then combine with calcium to form kidney and urinary stones. Patients typically develop recurrent kidney stones with progressive nephrocalcinosis and end stage renal disease by 20 - 30 years of age. Patients with progressive disease can also present with systemic signs of oxalosis, which includes elevated plasma oxalate levels and potential oxalate deposits in extrarenal organs and tissues. Oxlumo reduces levels of the glycolate oxidase (GO) enzyme by targeting the hydroxyacid oxidase 1 mRNA in hepatocytes through RNA interference. Decreased GO enzyme levels reduce the amount of available glyoxylate, decreasing conversion to oxalate. The goal of therapy is to slow the progression of disease, preserve kidney function, and slow the development of systemic oxalosis. Oxlumo is not expected to be effective in other forms of primary hyperoxaluria, such as PH2 or PH3, because its mechanism of action does not affect the metabolic pathways causing hyperoxaluria in those subtypes. PH1 is the most common and severe type of PH and accounts for approximately 80% of all PH cases.

Due to the high cost and specific approved indication, MO HealthNet will impose clinical criteria to ensure appropriate utilization of Oxlumo.

Program-Specific Information:

Drug	Cost per vial	Cost per year (maintenance dosing based on a 70 kg patient)
OXLUMO 94.5 MG/0.5 ML VIAL	$58,349 WAC	$700,188 WAC

Type of Criteria:
☐ **Increased risk of ADE**
☒ **Appropriate Indications**
☐ **Preferred Drug List**
☒ **Clinical Edit**

Data Sources:
☐ **Only Administrative Databases**
☒ **Databases + Prescriber-Supplied**

Setting & Population

- Drug class for review: Oxlumo™ (lumasiran)
- Age range: All appropriate MO HealthNet participants

Approval Criteria

Initial Therapy:

- Prescribed by or in consultation with a nephrologist, urologist, or other specialist in the treated disease state **AND**
- Documented diagnosis of primary hyperoxaluria type 1 (PH1) **AND**
- Diagnosis confirmed by:
  - Genetic testing confirming a pathogenic variant of the AGXT gene **OR**
  - Presence of characteristic disease symptoms such as:
    - chronic kidney stone formation (with 95% or more of calcium oxalate monohydrate)
    - hyperoxaluria
    - clinical evidence of systemic oxalosis (i.e., oxalate deposits in the heart)
    - liver biopsy showing low levels of AGT enzyme activity **AND**
- Documented previous or concurrent therapy with pyridoxine for at least 90 days **AND**
- Documentation of baseline urinary oxalate excretion and plasma oxalate levels

Continuation of Therapy:

- Initial approval is for 1 year, renewal of prior authorization may be given following documentation of improved urinary oxalate excretion or reduced plasma oxalate levels from baseline

Denial Criteria

- Therapy will be denied if all approval criteria are not met
- Documented history of liver transplant

Required Documentation

Laboratory Results:	X	Progress Notes:	
MedWatch Form:		Other:	X

Disposition of Edit

Denial: Exception code “0682” (Clinical Edit)
Rule Type: CE

Default Approval Period

1 year

References

- OXLUMO (lumasiran) [package insert]. Cambridge, MA: Alnylam Pharmaceuticals; October 2022.
- National Organization for Rare Disorders. Primary Hyperoxaluria. https://rarediseases.org/rare-diseases/primary-hyperoxaluria/. Accessed January 20, 2023.

- Hoyer-Kuhn, H., Kohbrok, S., Volland, R., Franklin, J., Hero, B., Beck, B.B., Hope, B. Vitamin B6 in Primary Hyperoxaluria I: First Prospective Trial after 40 Years of Practice. CJASN; March 2014; 9(3):468-477.
- Allena Pharmaceuticals. Hyperoxaluria. https://www.allenapharma.com/hyperoxaluria. Accessed January 20, 2023.
- Milliner, D.S., Eickholt, J.T., Bergstralh, E.J., Wilson, D.M., Smith, L.H. Results of Long-term Treatment with Orthophosphate and Pyridoxine in Patients with Primary Hyperoxaluria. N Engl J Med 1994; 331:1553-1558.
- IPD Analytics. New Drug Review: Oxlumo (lumasiran). December 2020.
- IPD Analytics. Nephrology: Primary Hyperoxaluria. Accessed January 20, 2023.