SmartPA Criteria Proposal

Drug/Drug Class:	Zokinvy Clinical Edit
First Implementation Date:	November 18, 2021
Proposed Date:	April 18, 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 Zokinvy™ (lonafarnib)

Why Issue Selected: Zokinvy™ (lonafarnib), FDA approved in November 2020, represents the first disease-modifying treatment for Hutchinson-Gilford Progeria Syndrome (HGPS) and Progeroid Laminopathies (PLs). HGPS and PLs are rare, genetic, and inevitably fatal conditions diagnosed between 9 and 24 months of age. According to the Progeria Research Foundation, as of December 31, 2022, there are 140 individuals worldwide living with HGPS and 72 with PLs, 16 and 13 of which live within the United States. HGPS is caused by pathogenic variants in the *LMNA* gene which leads to the synthesis of a truncated protein, progerin, which accumulates within the nuclear envelope and leads to cellular instability and premature aging. PLs are caused by pathogenic variants in either the *LMNA* gene and/or the *ZMPSTE24* gene, and do not result in the production of progerin but are associated with disease characteristics and traits that overlap with Progeria. The characteristic appearance of premature aging is often associated with alopecia, head/facial abnormalities, cardiovascular disease, stroke, joint stiffness, and lipodystrophy. Atherosclerosis, the primary cause of premature death, occurs by age 13 on average. Zokinvy inhibits farnesyltransferase to prevent farnesylation and subsequent accumulation of progerin and progerin-like proteins in the inner nuclear membrane.

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

Program-Specific Information:

Date Range FFS 1-1-2022 to 12-31-2022			
Drug	**Claims**	**Cost per capsule**	**Cost per bottle of 30 capsules**
ZOKINVY 50 MG CAPSULE	0	$772.40 MAC	$23,171.94 MAC
ZOKINVY 75 MG CAPSULE		$1,158.61 MAC	$34,758.41 MAC

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: Zokinvy™ (lonafarnib)
- Age range: All appropriate MO HealthNet participants

Approval Criteria

- Prescribed by or in consultation with a geneticist or other specialist in the treated disease state **AND**
- Documented diagnosis of HGPS or processing-deficient PLs with either heterozygous *LMNA* pathogenic or likely pathogenic variant with progerin-like protein accumulation or homozygous or compound heterozygous *ZMPSTE24* pathogenic or likely pathogenic variants **AND**
- Participant has a BSA ≥ 0.39 m^2 **AND**
- Participant is not currently pregnant

Denial Criteria

- Therapy will be denied if all approval criteria are not met
- Concurrent therapy with midazolam, lovastatin, simvastatin, or atorvastatin in the past 45 days

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

- ZOKINVY™ (lonafarnib) [package insert]. Palo Alto, CA: Eiger BioPharmaceuticals, Inc.; November 2020.
- NIH: U.S. National Library of Medicine. Phase II Trial of Lonafarnib (a Farnesyltransferase Inhibitor) for Progeria. https://clinicaltrials.gov/ct2/show/NCT00425607?term=NCT00425607&draw=2&rank=1. Accessed January 24, 2023.
- National Organization for Rare Disorders (NORD): Hutchinson-Gilford Progeria. https://rarediseases.org/rare-diseases/hutchinson-gilford-progeria/. Accessed January 24, 2023.
- Gordon, L.B, Shappell, H., Massaro, J., et.al. Association of Lonafarnib Treatment vs No Treatment with Mortality Rate in Patients with Hutchinson-Gilford Progeria Syndrome. JAMA. 2018 April 24; 319(16):1687-1695. Accessed February 3, 2022.
- U.S. Food & Drug Administration (FDA): News Release: FDA Approved First Treatment for Hutchinson-Gilford Progeria Syndrome and Some Progeroid Laminopathies. https://www.fda.gov/news-events/press-announcements/fda-approves-first-treatment-hutchinson-gilford-progeria-syndrome-and-some-progeroid-laminopathies. Accessed January 24, 2023.
- IPD Analytics: New Drug Review: Zokinvy (lonafarnib). November 2020.

- Progeria Research Foundation. PRF by the numbers. Published December 31, 2022. https://www.progeriaresearch.org/wp-content/uploads/2023/01/FINAL-Rev-1-PRF-By-the-Numbers_-December-31-2022.pdf. Accessed January 24, 2023.