SmartPA Criteria Proposal

Drug/Drug Class:	Sickle Cell Disease Clinical Edit
First Implementation Date:	TBD
Proposed Date:	March 19, 2020
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 agents for Sickle Cell Disease

Why Issue Selected: Sickle cell disease (SCD) is a genetic disorder that results in the formation of sickled red blood cells. SCD acutely presents with vascular occlusion, resulting in recurrent pain episodes, severe infections as a result of splenic infarction, acute chest syndrome, pulmonary hypertension, stroke, and cumulative multiorgan damage. These episodes are categorized as vaso-occlusive crises (VOC). Recurrent VOC cause an inflammatory response in the endothelium which ultimately leads to reduced blood flow, obstruction, and pain crises. SCD affects roughly 100,000 Americans and is one of the most common inherited blood disorders. Until recently, the only FDA approved therapies for SCD were hydroxyurea (Siklos® and Droxia®) and L-glutamine (Endari™). Hydroxyurea, a first-line therapy, reduces the incidence of acute painful episodes and hospitalization rates and prolongs survival. Hydrea® (hydroxyurea 500mg capsules) are not FDA approved for SCD and are not included in this edit. Endari was approved in 2017 to reduce acute complications in patients > 5 years of age with SCD; the mechanism is unknown but is thought to involve an antioxidant effect. In November 2019, the FDA approved two new therapies for SCD, Adakveo® (crizanlizumab-tcma) and Oxbryta™ (voxelotor). Adakveo, a humanized IgG2 kappa monoclonal antibody, is approved to reduce the frequency of VOC in patients 16 years and older. Oxbryta, a hemoglobin S polymerization inhibitor, is approved for the treatment of SCD in patients 12 years and older. Oxbryta was approved under accelerated approval based on an increase in hemoglobin; continued approval may be contingent upon verification and description of clinical benefit in confirmatory trials.

Program-Specific Information:

Date Range FFS 1-1-2019 to 12-31-2019				
Drug	**Claims**	**Spend**	**Cost per unit**	
Adakveo® 100mg/10ml vial	0	-	$234.77	per ml MAC
Droxia® 200mg capsule	13	$623.25	$0.75	per cap WAC
Droxia® 300mg capsule	61	$3,469.65	$0.73	per cap NADAC
Droxia® 400mg capsule	93	$5,974.34	$0.80	per cap WAC
Endari™ 5g powder packet	68	$180,594.35	$19.15	per packet MAC
Oxbryta™ 500mg tablet	0	-	$115.28	per tab MAC
Siklos® 100mg tablet	0	-	$5.25	per tab WAC
Siklos® 1,000mg tablet	0	-	$52.50	per tab WAC

Drug	Cost per month based on a 75kg patient	
Adakveo®	$9,390.80	(4 vials for maintenance dosing every 4 weeks)
Droxia®	$166.50	(6 of 400mg & 1 of 200mg caps once a day)
Endari™	$3,447.00	(3 packets 2 times a day)
Oxbryta™	$10,368.00	(3 tablets once a day)
Siklos®	$3,937.50	(2 & 1/2 of 1,000mg tablet daily)

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

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

Setting & Population

- Drug class for review: Agents for Sickle Cell Disease
- Age range: All appropriate MO HealthNet participants aged 2 years or older

Approval Criteria

- Participant is aged ≥ 2 years **AND**
- Documented diagnosis of sickle cell disease in the past 2 years **AND**
- Prescribed by or in consultation with a hematologist or other appropriate specialist for the treated disease state **AND**
- For Droxia (hydroxyurea capsules): Participant is not currently pregnant
- For Siklos (hydroxyurea tablets):
  - Participant is not currently pregnant **AND**
  - Documentation of inability to swallow oral capsule formulations of hydroxyurea due to participant age or clinical condition - approval based on Clinical Consultant Review
- For Endari (L-glutamine oral powder):
  - Participant is aged ≥ 5 years **AND**
  - For initial therapy:
    - Documentation of at least 2 sickle cell-related VOCs in the past year **AND**
    - Documentation of previous or concurrent treatment, intolerance, insufficient response or contraindication with hydroxyurea **OR**
    - Documentation of consultation with hematologist familiar with sickle cell disease within the last year and refusal of treatment with hydroxyurea
  - For renewal of prior authorization: Documentation of reduction in the number of sickle cell-related VOCs
- For Adakveo (crizanlizumab-tmca):
  - Participant is aged ≥ 16 years **AND**
  - Participant is not currently pregnant **AND**
  - For initial therapy:
    - Documentation of at least 2 sickle cell-related VOCs in the past year **AND**
    - Documentation of previous or concurrent treatment, intolerance, insufficient response or contraindication with hydroxyurea **OR**
    - Documentation of consultation with hematologist familiar with sickle cell disease within the last year and refusal of treatment with hydroxyurea
    - Initial approval of prior authorization is 12 months
  - For renewal of prior authorization: Documentation of reduction in the number of sickle cell-related VOCs

- For Oxbryta (voxelotor):
    - Participant is aged ≥ 12 years **AND**
    - Participant is not currently pregnant **AND**
    - For initial therapy:
        - Documentation of abnormal hemoglobin level > 5.5 to < 10.5 g/dL **AND**
        - Documentation of baseline indirect bilirubin **AND**
        - Documentation of baseline reticulocytes **AND**
        - Documentation of previous or concurrent treatment, intolerance, insufficient response or contraindication with hydroxyurea **OR**
        - Documentation of consultation with hematologist familiar with sickle cell disease within the last year and refusal of treatment with hydroxyurea
        - Initial approval of prior authorization is 6 months
    - Renewal of prior authorization may be up to 12 months following documentation of the following:
        - Documentation of increase in hemoglobin by > 1 g/dL from baseline to 24 weeks of therapy **AND**
        - Documentation of reduction in indirect bilirubin from baseline **AND**
        - Documentation of reduction in reticulocytes from baseline

Denial Criteria

- Therapy will be denied if no approval crieria are met
- For Oxbryta (voxelotor): documented diagnosis of renal or hepatic impairment in the past 2 years

Required Documentation

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

Disposition of Edit

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

Default Approval Period

6 months

References

- DROXIA (hydroxyurea) capsules. [package insert]. Princeton, New Jersey: Bristol-Myers Squibb Company; July 2019.
- SIKLOS (hydroxyurea) tablets. [package insert]. Bryn Mawr, PA: Medunik USA, Inc; May 2018.
- ENDARI (L-glutamine oral powder). [package insert]. Torrance, CA: Emmaus Medical, Inc; October 2019.
- ADAKVEO® (crizanlizumab-tmca) injection. [package insert]. East Hanover, NJ: Novartis Pharmaceuticals Corporation; November 2019.
- OXBRYTA™ (voxelotor) tablets, [package insert]. San Francisco, CA: Global Blood Therapeutics, Inc.; November 2019.
- IPD Analytics. New Drug Review: Adakveo (crizanlizumab-tcma). December 2019.
- IPD Analytics. New Drug Review: Oxbryta (voxelotor). December 2019.

- IPD Analytics. Hematology: Sickle Cell Disease. Accessed February 20, 2020.
- FDA Approves Voxelotor for Sickle Cell Disease. FDA. https://www.fda.gov/drugs/resources-information-approved-drugs/fda-approves-voxelotor-sickle-cell-disease. November 25, 2019. Accessed December 12, 2019.
- FDA Approves Novel Treatment to Target Abnormality in Sickle Cell Disease. FDA. https://www.fda.gov/news-events/press-announcements/fda-approves-novel-treatment-target-abnormality-sickle-cell-disease. November 20, 2019. Accessed December 12, 2019
- Medscape. FDA Oks Crizanlizumab, First Targeted Therapy for Sickle Cell Crisis. https://www.medscape.com/viewarticle/921458?nlid=132640_3901&src=wnl_newsalrt_191115_MSCPEDIT&uac=347016BJ&impID=2168888&faf=1. Accessed November 18, 2019.
- Yawn, Barbara. P., John-Sowah, Joylene. Management of Sickle Cell Disease: Recommendations from the 2014 Expert Panel Report. American Family Physicians. Volume 92, Number 12. December 15, 2015.