SmartPA Criteria Proposal

Drug/Drug Class:	Sickle Cell Disease Clinical Edit
First Implementation Date:	August 17, 2020
Proposed Date:	October 17, 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 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) is not FDA approved for SCD and is 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-tmca) 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 4 years and older.

Due to the high cost and specific approved indications, MO HealthNet will impose clinical criteria to ensure appropriate utilization of agents for Sickle Cell Disease.

Program-Specific Information:

Date Range FFS 7-1-2022 to 6-30-2023			
Drug	**Claims**	**Spend**	**Avg Spend per Claim**
ADAKVEO 100 MG/10 ML VIAL	58	$473,434.44	$8,162.66
DROXIA 200 MG CAPSULE	7	$93.13	$13.30
DROXIA 300 MG CAPSULE	36	$1,628.73	$45.24
DROXIA 400 MG CAPSULE	132	$7,795.02	$59.05
ENDARI 5 GRAM PWD PACKET	62	$118,415.12	$1,909.92
OXBRYTA 300 MG SUSP TAB	39	$381,863.91	$9,791.38
OXBRYTA 300 MG TABLET	4	$44,026.84	$11,006.71

OXBRYTA 500 MG TABLET	96	$973,473.60	$10,140.35
SIKLOS 100 MG TABLET	3	$4,996.47	$1,665.49
SIKLOS 1,000 MG TABLET	0	-	-

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

Initial Approval Criteria:

- Must meet all of the following:
  - Participant is aged 2 years or older;
  - Documented diagnosis of sickle cell disease; **AND**
  - Prescribed by or in consultation with a hematologist or other appropriate specialist for the treated disease state
- Additional approval criteria for Siklos only:
  - Documentation of inability to swallow oral capsule formulations of hydroxyurea due to participant age or clinical condition - approval based on Clinical Consultant Review
- Additional approval criteria for Endari only:
  - Must meet all of the following:
    - Participant is aged 5 years or older;
    - Documentation of at least 2 sickle cell-related VOCs in the past year; **AND**
    - Documentation of previous therapeutic trial (at least 3 months of therapy) or concurrent treatment, intolerance, insufficient response, or contraindication with hydroxyurea
- Additional approval criteria for Adakveo only:
  - Must meet all of the following:
    - Participant is aged 16 years or older;
    - Documentation of at least 2 sickle cell-related VOCs in the past year; **AND**
    - Documentation of previous therapeutic trial (at least 3 months of therapy) or concurrent treatment, intolerance, insufficient response, or contraindication with hydroxyurea
- Additional approval criteria for Oxbryta only:
  - Must meet all of the following:
    - Participant is aged 4 years or older;
    - Documentation of abnormal hemoglobin level > 5.5 to < 10.5 g/dL;
    - Documentation of baseline indirect bilirubin;
    - Documentation of baseline reticulocytes; **AND**
    - Documentation of previous therapeutic trial (at least 3 months of therapy) or concurrent treatment, intolerance, insufficient response, or contraindication with hydroxyurea
- Initial approval period: 6 months

Continuation of Therapy:

- Continuation criteria for Endari and Adakveo only:
  - Documentation of reduction in the number of sickle cell-related VOCs
- Continuation criteria for Oxbryta only:
  - Must meet all of the following:
    - Documentation of increase in hemoglobin by > 1 g/dL from baseline to 24 weeks of therapy;

    - Documentation of reduction in indirect bilirubin from baseline; **AND**
    - Documentation of reduction in reticulocytes from baseline
- Continuation approval period: 12 months

Denial Criteria

- Therapy will deny with presence of one of the following:
    - Any approval criteria are not met; **OR**
    - Participant is currently pregnant

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; June 2023.
- SIKLOS (hydroxyurea) tablets. [package insert]. Bryn Mawr, PA: Medunik USA, Inc; December 2021.
- ENDARI (L-glutamine oral powder). [package insert]. Torrance, CA: Emmaus Medical, Inc; October 2020.
- ADAKVEO® (crizanlizumab-tmca) injection. [package insert]. East Hanover, NJ: Novartis Pharmaceuticals Corporation; September 2022.
- OXBRYTA® (voxelotor) tablets and tablets for oral suspension. [package insert]. San Francisco, CA: Global Blood Therapeutics, Inc.; August 2023.
- 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 September 12, 2023.
- 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.