

## **Clinical Policy: Hydroxyurea (Siklos)**

Reference Number: CP.PMN.193

Effective Date: 02.19.19

Last Review Date: 05.24

Line of Business: Commercial, HIM, Medicaid

[Revision Log](#)

See [Important Reminder](#) at the end of this policy for important regulatory and legal information.

### **Description**

Hydroxyurea (Siklos<sup>®</sup>) is an antimetabolite.

### **FDA Approved Indication(s)**

Siklos is indicated to reduce the frequency of painful crises and to reduce the need for blood transfusions in adult and pediatric patients, 2 years of age and older, with sickle cell anemia with recurrent moderate to severe painful crises.

### **Policy/Criteria**

*Provider must submit documentation (such as office chart notes, lab results or other clinical information) supporting that member has met all approval criteria.*

It is the policy of health plans affiliated with Centene Corporation<sup>®</sup> that Siklos is **medically necessary** when the following criteria are met:

#### **I. Initial Approval Criteria**

##### **A. Sickle Cell Disease (must meet all):**

1. Diagnosis of sickle cell disease (SCD);
2. Age  $\geq$  9 months;
3. For members aged  $\geq$  2 years: Member must use generic hydroxyurea, unless contraindicated or clinically significant adverse effects are experienced;
4. Dose does not exceed 35 mg/kg per day based on weight.

##### **Approval duration:**

**Medicaid/HIM** – 12 months

**Commercial** – 12 months or duration of request, whichever is less

##### **B. Oncology Indications (off-label) (must meet all):**

1. Diagnosis of one of the following (a-f);
  - a. Acute myeloid leukemia;
  - b. Chronic myeloid leukemia;
  - c. Head and neck cancer;
  - d. Myeloproliferative neoplasms (myelofibrosis, polycythemia vera, essential thrombocythemia);
  - e. Myelodysplastic syndromes;
  - f. Langerhans Cell Histiocytosis;
2. Age  $\geq$  2 years;

3. Member must use generic hydroxyurea, unless contraindicated or clinically significant adverse effects are experienced;
4. Request meets one of the following (a or b):
  - a. Dose does not exceed 80 mg/kg per day based on weight;
  - b. Dose is supported by practice guidelines or peer-reviewed literature for the relevant off-label use (*prescriber must submit supporting evidence*).

**Approval duration:**

**Medicaid/HIM** – 12 months

**Commercial** – 12 months or duration of request, whichever is less

**C. Other diagnoses/indications** (must meet 1 or 2):

1. If this drug has recently (within the last 6 months) undergone a label change (e.g., newly approved indication, age expansion, new dosing regimen) that is not yet reflected in this policy, refer to one of the following policies (a or b):
  - a. For drugs on the formulary (commercial, health insurance marketplace) or PDL (Medicaid), the no coverage criteria policy for the relevant line of business: CP.CPA.190 for commercial, HIM.PA.33 for health insurance marketplace, and CP.PMN.255 for Medicaid; or
  - b. For drugs NOT on the formulary (commercial, health insurance marketplace) or PDL (Medicaid), the non-formulary policy for the relevant line of business: CP.CPA.190 for commercial, HIM.PA.103 for health insurance marketplace, and CP.PMN.16 for Medicaid; or
2. If the requested use (e.g., diagnosis, age, dosing regimen) is NOT specifically listed under section III (Diagnoses/Indications for which coverage is NOT authorized) AND criterion 1 above does not apply, refer to the off-label use policy for the relevant line of business: CP.CPA.09 for commercial, HIM.PA.154 for health insurance marketplace, and CP.PMN.53 for Medicaid.

**II. Continued Therapy**

**A. All Indications in Section I** (must meet all):

1. Member meets one of the following (a or b):
  - a. Currently receiving medication via Centene benefit or member has previously met initial approval criteria;
  - b. Member is currently receiving medication and is enrolled in a state and product with continuity of care regulations (*refer to state specific addendums for CC.PHARM.03A and CC.PHARM.03B*);
2. Member is responding positively to therapy;
3. If request is for a dose increase, request meets one of the following (a, b, or c):
  - a. SCD: New dose does not exceed 35 mg/kg per day based on weight;
  - b. Oncology indications: New dose does not exceed 80 mg/kg per day based on weight;\*
  - c. New dose is supported by practice guidelines or peer-reviewed literature for the relevant off-label use (*prescriber must submit supporting evidence*).

\*Prescribed regimen must be FDA-approved or recommended by NCCN

**Approval duration:**

**Medicaid/HIM** – 12 months

**Commercial** – 12 months or duration of request, whichever is less

**B. Other diagnoses/indications (must meet 1 or 2):**

1. If this drug has recently (within the last 6 months) undergone a label change (e.g., newly approved indication, age expansion, new dosing regimen) that is not yet reflected in this policy, refer to one of the following policies (a or b):
  - a. For drugs on the formulary (commercial, health insurance marketplace) or PDL (Medicaid), the no coverage criteria policy for the relevant line of business: CP.CPA.190 for commercial, HIM.PA.33 for health insurance marketplace, and CP.PMN.255 for Medicaid; or
  - b. For drugs NOT on the formulary (commercial, health insurance marketplace) or PDL (Medicaid), the non-formulary policy for the relevant line of business: CP.CPA.190 for commercial, HIM.PA.103 for health insurance marketplace, and CP.PMN.16 for Medicaid; or
2. If the requested use (e.g., diagnosis, age, dosing regimen) is NOT specifically listed under section III (Diagnoses/Indications for which coverage is NOT authorized) AND criterion 1 above does not apply, refer to the off-label use policy for the relevant line of business: CP.CPA.09 for commercial, HIM.PA.154 for health insurance marketplace, and CP.PMN.53 for Medicaid.

**III. Diagnoses/Indications for which coverage is NOT authorized:**

- A. Non-FDA approved indications, which are not addressed in this policy, unless there is sufficient documentation of efficacy and safety according to the off label use policies – CP.CPA.09 for commercial, HIM.PA.154 for health insurance marketplace, and CP.PMN.53 for Medicaid, or evidence of coverage documents.

**IV. Appendices/General Information**

*Appendix A: Abbreviation/Acronym Key*

FDA: Food and Drug Administration

NHLBI: National Heart, Lung, and Blood Institute

SCD: sickle cell disease

*Appendix B: Therapeutic Alternatives*

*This table provides a listing of preferred alternative therapy recommended in the approval criteria. The drugs listed here may not be a formulary agent for all relevant lines of business and may require prior authorization.*

| <b>Drug Name</b>   | <b>Dosing Regimen</b>   | <b>Dose Limit/<br/>Maximum Dose</b>                     |
|--|---|---|
| hydroxyurea<br>(Hydrea <sup>®</sup> ,<br>Droxia <sup>®</sup> ) | SCD: 15 mg/kg PO QD<br>CML: 40 mg/kg/day<br>Head and neck cancer: 1,000 mg q12h | SCD: 35 mg/kg/day<br>Oncology indications: 80 mg/kg/day |

*Therapeutic alternatives are listed as Brand name<sup>®</sup> (generic) when the drug is available by brand name only and generic (Brand name<sup>®</sup>) when the drug is available by both brand and generic.*

*Appendix C: Contraindications/Boxed Warnings*

- Contraindication(s): hypersensitivity to hydroxyurea or any other component of its formulation
- Boxed warning(s): myelosuppression and malignancies

*Appendix D: General Information*

- Per the 2014 NHLBI Evidence-based management of SCD Expert Panel Report, for infants 9 months of age and older, children, and adolescents with SCD, treatment with hydroxyurea should be offered regardless of clinical severity to reduce SCD-related complications. The starting dose for infants and children is 20 mg/kg/day.

**V. Dosage and Administration**

| Indication | Dosing Regimen  | Maximum Dose                                |
|------------|---|---|
| SCD        | Initial dose 15 mg/kg in adults and 20 mg/kg in children PO QD. Dose may be increased by 5 mg/kg/day every 8 weeks or sooner if a severe painful crisis occurs. | 35 mg/kg/day (maximum dose based on weight) |

**VI. Product Availability**

Tablets: 100 mg, 1,000 mg

**VII. References**

1. Siklos Prescribing Information. Bryn Mawr, PA: Medunik USA, Inc.; November 2023. Available at <https://files.medunik.com/usa/siklos/prescribing-information.pdf>. Accessed January 16, 2024.
2. Lexicomp Online [Internet Database]. Hudson, Ohio: Wolters Kluwer Clinical Drug Information, Inc. Updated periodically. Accessed February 11, 2024.
3. National Comprehensive Cancer Network Drugs and Biologics Compendium. Available at: [http://www.nccn.org/professionals/drug\\_compendium](http://www.nccn.org/professionals/drug_compendium). Accessed February 11, 2024.
4. Brandow A, Carroll C, Creary S, et al. American Society of Hematology 2020 guidelines for sickle cell disease: management of acute and chronic pain. *Blood Advances*. 2020;4(12):2656-2701.
5. Yawn BP, Buchanan GR, Afenyi-Annan AN, et al. Evidence-based management of sickle cell disease: Expert Panel Report, 2014. National Heart, Lung, and Blood Institute (NHLBI). Available at: [https://www.nhlbi.nih.gov/sites/default/files/media/docs/sickle-cell-disease-report%20020816\\_0.pdf](https://www.nhlbi.nih.gov/sites/default/files/media/docs/sickle-cell-disease-report%20020816_0.pdf).

| Reviews, Revisions, and Approvals   | Date     | P&T Approval Date |
|---|----------|-------------------|
| 2Q 2020 annual review: no significant changes; applied HIM line of business; references reviewed and updated  | 02.13.20 | 05.20             |
| 2Q 2021 annual review: myelodysplastic syndromes added as option for off-label oncology indication per NCCN-supported category 2A recommendation; references for HIM line of business off-label use | 02.01.21 | 05.21             |

| Reviews, Revisions, and Approvals   | Date     | P&T Approval Date |
|---|----------|-------------------|
| revised from HIM.PHAR.21 to HIM.PA.154; references reviewed and updated.  |          |                   |
| Revised approval duration for Commercial line of business from length of benefit to 12 months or duration of request, whichever is less; RT4: updated FDA approved indication to reflect adult expansion for sickle cell anemia.  | 12.16.21 | 02.22             |
| 2Q 2022 annual review: Langerhans Cell Histiocytosis added as option for off-label oncology indication per NCCN-supported category 2A recommendation; references reviewed and updated.  | 02.06.22 | 05.22             |
| Template changes applied to other diagnoses/indications and continued therapy section.  | 10.05.22 |                   |
| 2Q 2023 annual review: no significant changes; references reviewed and updated.   | 02.03.23 | 05.23             |
| 2Q 2024 annual review: revised age criterion to age $\geq 9$ months given guideline support and lack of availability and/or access to age-appropriate hydroxyurea formulation; clarified that generic hydroxyurea trial applies to members age $\geq 2$ years; references reviewed and updated. | 03.05.24 | 05.24             |

**Important Reminder**

This clinical policy has been developed by appropriately experienced and licensed health care professionals based on a review and consideration of currently available generally accepted standards of medical practice; peer-reviewed medical literature; government agency/program approval status; evidence-based guidelines and positions of leading national health professional organizations; views of physicians practicing in relevant clinical areas affected by this clinical policy; and other available clinical information. The Health Plan makes no representations and accepts no liability with respect to the content of any external information used or relied upon in developing this clinical policy. This clinical policy is consistent with standards of medical practice current at the time that this clinical policy was approved. “Health Plan” means a health plan that has adopted this clinical policy and that is operated or administered, in whole or in part, by Centene Management Company, LLC, or any of such health plan’s affiliates, as applicable.

The purpose of this clinical policy is to provide a guide to medical necessity, which is a component of the guidelines used to assist in making coverage decisions and administering benefits. It does not constitute a contract or guarantee regarding payment or results. Coverage decisions and the administration of benefits are subject to all terms, conditions, exclusions, and limitations of the coverage documents (e.g., evidence of coverage, certificate of coverage, policy, contract of insurance, etc.), as well as to state and federal requirements and applicable Health Plan-level administrative policies and procedures.

This clinical policy is effective as of the date determined by the Health Plan. The date of posting may not be the effective date of this clinical policy. This clinical policy may be subject to applicable legal and regulatory requirements relating to provider notification. If there is a

discrepancy between the effective date of this clinical policy and any applicable legal or regulatory requirement, the requirements of law and regulation shall govern. The Health Plan retains the right to change, amend or withdraw this clinical policy, and additional clinical policies may be developed and adopted as needed, at any time.

This clinical policy does not constitute medical advice, medical treatment, or medical care. It is not intended to dictate to providers how to practice medicine. Providers are expected to exercise professional medical judgment in providing the most appropriate care, and are solely responsible for the medical advice and treatment of members. This clinical policy is not intended to recommend treatment for members. Members should consult with their treating physician in connection with diagnosis and treatment decisions.

Providers referred to in this clinical policy are independent contractors who exercise independent judgment and over whom the Health Plan has no control or right of control. Providers are not agents or employees of the Health Plan.

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**Note:**

**For Medicaid members**, when state Medicaid coverage provisions conflict with the coverage provisions in this clinical policy, state Medicaid coverage provisions take precedence. Please refer to the state Medicaid manual for any coverage provisions pertaining to this clinical policy.

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