Clinical Policy: Thioguanine (Tabloid)

Reference Number: HIM.PA.13
Effective Date: 09.04.18
Last Review Date: 11.18 Revision Log
Line of Business: HIM

See Important Reminder at the end of this policy for important regulatory and legal information.

Description
Thioguanine (Tabloid®) is an antimetabolite.

FDA Approved Indication(s)
Tabloid is indicated for remission induction and remission consolidation treatment of acute nonlymphocytic leukemias.

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® that Tabloid is **medically necessary** when the following criteria are met:

I. Initial Approval Criteria

A. Acute Myelogenous or Lymphoblastic Leukemia (must meet all)**:**

1. Diagnosis of acute myelogenous or lymphobalstic leukemia;
2. Prescribed by or in consultation with an oncologist or hematologist;
3. For age ≥ 18 years, failure of mercaptopurine unless contraindicated or clinically significant adverse effects are experienced;
4. Dose does not exceed 200 mg/m^2 per day.

Approval duration: 10 days

B. Other diagnoses/indications

1. Refer to the off-label use policy for the relevant line of business if diagnosis is NOT specifically listed under section III (Diagnoses/Indications for which coverage is NOT authorized): HIM.PHAR.21 for health insurance marketplace.

II. Continued Therapy

A. Acute Myelogenous or Lymphoblastic Leukemia (must meet all)**:**

1. Currently receiving medication via Centene benefit, or documentation supports that member is currently receiving Tabloid for a covered indication and has received this medication for at least 30 days;
2. Member is responding positively to therapy;
3. If request is for a dose increase, new dose does not exceed 200 mg/m^2 per day.

Approval duration: up to a total of 10 days

B. Other diagnoses/indications (must meet 1 or 2)**:**
1. Currently receiving medication via Centene benefit and documentation supports positive response to therapy.
   Approval duration: Duration of request or 6 months (whichever is less); or
2. Refer to the off-label use policy for the relevant line of business if diagnosis is NOT specifically listed under section III (Diagnoses/Indications for which coverage is NOT authorized): HIM.PHAR.21 for health insurance marketplace.

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 – HIM.PHAR.21 for health insurance marketplace.

IV. Appendices/General Information

Appendix A: Abbreviation/Acronym Key
FDA: Food and Drug Administration

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.

Drug Name	Dosing Regimen	Dose Limit/ Maximum Dose
mercaptopurine	50 or 70 mg/m^2/day PO as part of a combination chemotherapy regimen	70 mg/m^2/day

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

Appendix C: Contraindications/Boxed Warnings
- Contraindication(s): thioguanine should be not used in patients whose disease has demonstrated prior resistance to this drug.
- Boxed warning(s): none reported

Appendix D: General Information
- Acute nonlymphocytic leukemia is an aggressive, fast-growing, disease in which too many myeloblasts are found in the bone marrow of the blood, and is also known as acute myelogenous leukemia, or AML.
- Both 6-mercaptopurine and 6-thioguanine are analogs of natural purines used for the treatment of acute myelogenous (off-label for mercaptopurine) and lymphoblastic leukemia (off-label for thioguanine). The NCCN mainly recommends the use of 6-mercaptopurine over 6-thioguanine in the treatment of acute myelogenous and lymphoblastic leukemias, due to possibly greater liver toxicity and thrombocytopenia associated with thioguanine. However, studies have shown that the cytotoxicity of thioguanine may be greater than that of mercaptopurine in children with ALL, although survival benefit of this greater degree of lymphopenia with thioguanine has not been demonstrated.

V. Dosage and Administration

Indication	Dosing Regimen	Maximum Dose
Acute myelogenous leukemia	100 mg/m^2 PO BID for 5 to 10 days, usually in combination with cytarabine. Alternatively as a single agent, thioguanine 2 to 3 mg/kg/day PO	3 mg/kg/day

VI. Product Availability

Tablet: 40 mg

VII. References

1. Tabloid Prescribing Information. Mason,OH: Prasco Laboratories; May 2018. Available at https://www.accessdata.fda.gov/drugsatfda_docs/label/2018/012429s028lbl.pdf. Accessed August 22, 2018.
2. Clinical Pharmacology [database online]. Tampa, FL: Gold Standard, Inc.; 2018. Available at: http://www.clinicalpharmacology-ip.com/. Accessed August 22, 2018.
3. National Comprehensive Cancer Network. Acute Myeloid Leukemia Version 2.2018. Available at: https://www.nccn.org/professionals/physician_gls/pdf/aml.pdf. Accessed August 24, 2018.
4. Adamson PC, Poplack DG, and Balis FM. The cytotoxicity of thioguanine vs mercaptopurine in acute lymphoblastic leukemia. Leukemia Research 1994; 18(11):805-810.
5. Lancaster DL, Lennard L, Rowland K, Vora AJ, and Lilleyman JS. Thioguanine versus mercaptopurine for therapy of childhood lymphoblastic leukaemia: a comparison of haematological toxicity and drug metabolite concentrations. British Journal of Haematology 1998; 102:439-443.

Reviews, Revisions, and Approvals	Date	P&T Approval Date
Policy created	09.04.18	11.18

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.

This clinical policy is the property of the Health Plan. Unauthorized copying, use, and distribution of this clinical policy or any information contained herein are strictly prohibited. Providers, members and their representatives are bound to the terms and conditions expressed herein through the terms of their contracts. Where no such contract exists, providers, members and their representatives agree to be bound by such terms and conditions by providing services to members and/or submitting claims for payment for such services.

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.

For Health Insurance Marketplace members, when applicable, this policy applies only when the prescribed agent is on your health plan approved formulary. Request for non-formulary drugs must be reviewed using the non-formulary policy; HIM.PA.103.