Clinical Policy: Thioguanine (Tabloid)

Reference Number: PA.CP.PHAR.437
Effective Date: 01/2020
Last Review Date: 10/2023 Revision Log

Description
Thioguanine (Tabloid®) is an antimetabolite.

FDA Approved Indication(s)
Tabloid is indicated for remission induction and remission consolidation treatment of acute nonlymphocytic leukemias *[also known as acute myeloid leukemia; AML per the National Cancer Institute's Dictionary of Cancer Terms]*. However, it is not recommended for use during maintenance therapy or similar long-term continuous treatments due to the high risk of liver toxicity.

Tabloid is not effective in chronic lymphocytic leukemia, Hodgkin's lymphoma, multiple myeloma, or solid tumor.

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 PA Health & Wellness® that Tabloid is **medically necessary** when the following criteria are met:

I. Initial Approval Criteria

A. Acute Myeloid Leukemia (must meet all)**:**
1. Diagnosis of AML:
2. Prescribed by or in consultation with an oncologist or hematologist;
3. Prescribed for induction or consolidation therapy;
4. Request meets one of the following (a or b):
   a. Dose does not exceed 3 mg/kg per day;
   b. Dose is supported by practice guidelines or peer-reviewed literature for the relevant labeled or off-label use (*prescriber must submit supporting evidence*).

Approval duration: 3 months

B. Acute Lymphoblastic Leukemia (off-label) (must meet all)**:**
1. Diagnosis of acute lymphoblastic leukemia (ALL);
2. Prescribed by or in consultation with an oncologist or hematologist;
3. Disease is one of the following (a, b or c):
   a. Philadelphia chromosome-negative;
   b. For members < 18 years with Philadelphia chromosome-positive ALL: prescribed in combination with Sprycel® or imatinib;
   c. Post-consolidation, and high-risk (HR) arm not undergoing hematopoietic stem cell transplantation (HSCT) ± blinatumomab;

4. Dose is within FDA maximum limit for any FDA-approved indication or is supported by practice guidelines or peer-reviewed literature for the relevant off-label use (*prescriber must submit supporting evidence*).

Approval duration: 3 months

C. Glioma (off-label) (must meet all)**:**
1. Diagnosis of recurrent or progressive pilocytic astrocytoma (PA);
2. Prescribed by or in consultation with an oncologist or hematologist;
3. Age ≥ 18 years;
4. Prescribed in combination with PCV (procarbazine, lomustine, and vincristine; carmustine may be used in place of lomustine);
5. Dose is within FDA maximum limit for any FDA-approved indication or is supported by practice guidelines or peer-reviewed literature for the relevant off-label use (*prescriber must submit supporting evidence*).

Approval duration: 3 months

D. Other diagnoses/indications
1. Refer to the off-label use policy if diagnosis is NOT specifically listed under section III (Diagnoses/Indications for which coverage is NOT authorized): PA.CP.PMN.53

II. Continued Therapy

A. Acute Myeloid Leukemia (must meet all)**:**
1. Currently receiving medication via PA Health & Wellness benefit or member has previously met all initial approval criteria or the Continuity of Care policy (PA.LTSS.PHAR.01) applies;
2. Member is responding positively to therapy;
3. If request is for a dose increase, request meets one of the following (a or b):
   a. New dose does not exceed 3 mg/kg per day;
   b. New dose is supported by practice guidelines or peer-reviewed literature for the relevant labeled or off-label use (*prescriber must submit supporting evidence*).

Approval duration: 3 months

B. Acute Lymphoblastic Leukemia and Glioma (off-label) (must meet all)**:**
1. Currently receiving medication via PA Health & Wellness benefit or member has previously met all initial approval criteria or the Continuity of Care policy (PA.LTSS.PHAR.01) applies;
2. Member is responding positively to therapy;
3. If request is for a dose increase, new dose is within FDA maximum limit for any FDA-approved indication or is supported by practice guidelines or peer-reviewed literature for the relevant off-label use (*prescriber must submit supporting evidence*).

Approval duration: 3 months

C. Other diagnoses/indications (must meet 1 or 2)**:**
1. Currently receiving medication via PA Health & Wellness benefit and documentation supports positive response to therapy or the Continuity of Care policy (PA.LTSS.PHAR.01) applies.

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): PA.CP.PMN.53

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 – PA.CP.PMN.53

IV. Appendices/General Information

Appendix A: Abbreviation/Acronym Key

AML: acute myeloid leukemia
ALL: acute lymphoblastic leukemia
FDA: Food and Drug Administration
NCCN: National Comprehensive Cancer Center
PA: pilocytic astrocytoma

Appendix B: Therapeutic Alternatives

Not applicable

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

V. Dosage and Administration

Indication	Dosing Regimen	Maximum Dose
AML	Induction and consolidation therapy: • Combination therapy: o Because the usual therapies for adult and pediatric acute nonlymphocytic leukemias involve the use of thioguanine with other agents in combination, physicians responsible for administering these therapies should be experienced in the use of cancer chemotherapy and in the chosen protocol. • Single agent therapy: o On those occasions when single-agent chemotherapy with thioguanine may be appropriate, the usual initial dosage for pediatric patients and adults is approximately 2 mg/kg of body weight per day. If, after 4 weeks on this dosage, there is no clinical improvement and no leukocyte or platelet depression, the dosage may be cautiously increased to 3 mg/kg/day. The total daily dose may be given at one time. Maintenance therapy:	Varies

	• Thioguanine is not recommended for use during maintenance therapy or similar long-term continuous treatments due to the high risk of liver toxicity.	

VI. Product Availability

Tablet: 40 mg

VII. References

1. Tabloid Prescribing Information. Wixom, MI: Waylis Therapeutics LLC;; May 2023. Available at https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=44b0c461-47fb-4106-ba11-6ed85530235. Accessed August 8, 2023.
2. National Comprehensive Cancer Network Drugs and Biologics Compendium. Available at: http://www.nccn.org/professionals/drug_compendium. Accessed August 8, 2023.
3. National Comprehensive Cancer Network. Pediatric Acute Lymphoblastic Leukemia Version 2.2023. Available at: https://www.nccn.org/professionals/physician_gls/pdf/ped_all.pdf. Accessed August 8, 2023.
4. National Comprehensive Cancer Network. Acute Lymphoblastic Leukemia Version 2.2023. Available at: https://www.nccn.org/professionals/physician_gls/pdf/all.pdf. Accessed August 8, 2023.
5. National Comprehensive Cancer Network. Central Nervous System Cancers Version 1.2022. Available at: https://www.nccn.org/professionals/physician_gls/pdf/cns.pdf. Accessed August 8, 2023.

Reviews, Revisions, and Approvals	Date	P&T Approval Date
New Policy Created	01/2020	
4Q 2020 annual review: AML dosing information limited to package insert information or directive for providers to forward protocol dosing information (there is no NCCN guidance here); the off-label ALL criteria is presented separately with standard off-label dosing language; references reviewed and updated.	08/2020	
4Q 2021 annual review: moved requirement for use as remission induction/consolidation from ALL to AML per FDA label and NCCN; for ALL, specified that disease should be relapsed/refractory and added requirement for use in combination with imatinib or Sprycel if Ph+ per NCCN; references reviewed and updated.	10/2021	
4Q 2022 annual review: added off-label indication Glioma (pilocytic astrocytoma) per NCCN; references reviewed and updated.	10/2022	
4Q 2023 annual review: for off-label ALL indication, revised age criterion to < 65 years, removed relapsed/refractory requirement, and clarified the Philadelphia chromosome-positive ALL criteria	10/2023	

Reviews, Revisions, and Approvals	Date	P&T Approval Date
applies to members < 18 years per NCCN; references reviewed and updated.		