

***TPMT* AND *NUDT15* VARIANT ANALYSIS**

- I. *TPMT* and *NUDT15* variant analysis to determine drug metabolizer status is considered **medically necessary** when:
 - A. The member is being considered for or is currently undergoing treatment with any of the following:
 1. Azathioprine¹ (e.g., Imuran and Azasan), **OR**
 2. Mercaptopurine² (e.g., Purinethol and Purixan), **OR**
 3. Thioguanine³ (e.g., Tabloid), **OR**
 - B. The member is on thiopurine therapy, **AND**
 1. The member has had abnormal complete blood count results that do not respond to dose reduction.
- II. *TPMT* and *NUDT15* variant analysis to determine drug metabolizer status is considered **investigational** for all other indications.

¹ Commonly prescribed for treatment of avoiding rejection of a transplanted organ, and rheumatoid arthritis

² Commonly prescribed for treatment of acute lymphoblastic or lymphocytic leukemia

³ Commonly prescribed for treatment of acute nonlymphocytic leukemia

REFERENCES

1. National Comprehensive Cancer Network (NCCN). NCCN Clinical Practice Guidelines in Acute Lymphoblastic Leukemia. Version 2.2024. https://www.nccn.org/professionals/physician_gls/pdf/all.pdf
2. Table of Pharmacogenetic Associations. (2022, October 26). FDA. <https://www.fda.gov/medical-devices/precision-medicine/table-pharmacogenetic-associations>. Accessed April 28, 2023.