Insurance Company

# RE: PATIENT Appeal for Medical Coverage: Thiopurine Methyltransferase (TPMT) testing

**DOB:**

**ID #**

**Pat Acct #**

DATE

Dear Sir, or Madam:

I am writing to request coverage for thiopurine methyltransferase (*TPMT*) testing for my patient, ­­­XXX. I would like to provide you with relevant clinical information to support this request.

Azathioprine (AZA) and 6-mercaptopurine (6-MP) are thiopurine drugs. A thiopurine therapy is the preferred therapeutic choice and a cost-saving, steroid-sparing treatment for this patient with diagnosis. *TPMT* assessment remains medically necessary for this patient. *TPMT* is the enzymatic pathway involved in the metabolism of the thiopurine class of drugs.

Patients who carry *TPMT* polymorphisms resulting in null or decreased enzyme activity are at increased risk for myelosuppression on thiopurine therapy. Measurement of *TPMT* activity or *TPMT* genotype is useful for predicting this risk.

Individuals who possess a single *TPMT* mutation (heterozygous), or intermediate *TPMT* activity will convert more thiopurine into its active 6-TG metabolites. Such patients are likely to respond to therapy. However, they may be more susceptible to bone marrow toxicity and leukopenia. A lower initial dose of medication is selected when starting therapy1. Individuals who possess the homozygous *TPMT* variant genotype, or undetectable *TPMT* activity, are at high risk for developing severe myelosuppression, which may be associated with life-threatening infection risk. In these patients, an alternate therapy may be selected1.

The American College of Gastroenterology treatment guidelines indicate that, “thiopurine methyltransferase (*TPMT*) testing should be considered before initial use of azathioprine or 6-mercaptopurine to treat patients with Crohn’s disease2.” The U.S. Food and Drug Administration (FDA) prescribing information for AZA and 6-MP recommends either TPMT genotyping or phenotyping prior to initiating therapy to help identify patients who are at an increased risk of developing toxicity3.

Therefore, I urge you to provide coverage for *TPMT* testing for XXX at this time.

Please contact me at xxx, if you require additional information.

Sincerely,

Dr

Contact Info

References

1. Relling MV, Gardner EE, Sandborn WJ, et al. Clinical pharmacogenetics implementation consortium guidelines for thiopurine methyltransferase genotype and thiopurine dosing. Clin Pharmacol Ther 2011; 89(3):387-91. Epub 2011 Jan 26. doi: 10.1038/clpt.2010.320.
2. Lichtenstein GL, Loftus EV, Isaacs KL, et al. Management of Crohn’s disease in Adults. Am J Gastroenterol2018; 113:481–517; doi: 10.1038/ajg.2018.27.
3. U.S. Food and Drug Administration. Table of pharmacogenomics markers. Available at: <https://www.accessdata.fda.gov/scripts/cder/daf/index.cfm?event=overview.process&varApplNo=016324>. Accessed 10 Aug 2018.