

# 10X Essentials

A Publication of Geisinger Medical Laboratories  
Division of Molecular and Microbial Diagnostics  
Vol. (8):4. February 3, 2020

# Geisinger

Diagnostic Medicine Institute

## ***New In-house tests Next Generation Sequencing, 11/2019***

- 1. MyGenVar Myeloproliferative Screening Panel, Next Generation Sequencing (SunQuest Code = MPDSP)**
- 2. MyGenVar Myeloid Hematology Gene Panel (including rapid FLT3), Next Generation Sequencing (CoPath Code: MHGP and FLT3)**
- 3. MyGenVar Myeloid Hematology Gene Panel, Next Generation Sequencing (CoPath Code: MHGP)**



Next Generation Sequencing of Myeloid disorders and Rapid FLT3 mutation analysis is now performed in-house in the GMC Molecular Diagnostics Laboratory. These tests target genes associated with mutations in myeloid neoplasms including but not limited to acute myeloid leukemia (AML), myeloproliferative neoplasms (MPN), myelodysplastic syndrome (MDS), chronic myelogenous leukemia (CML), chronic myelomonocytic leukemia (CMML) and juvenile myelomonocytic leukemia (JMML).

They replace the current referred tests, including but not limited to NeoTYPE™ AML Prognostic Profile, NeoTYPE™ Myeloid Disorders Profile, NeoTYPE™ JMML Profile, NeoTYPE™ MDS/CMML Profile, and NeoTYPE™ MPN Profile, which may include FLT3 testing. These tests also replace current test MPD (Myeloid Proliferative Disorder) Reflex (THREF includes BCR-ABL FISH, JAK2, CALR, MPL, and CSF3R testing) and JAK2 Quantitative (JAK2QT) testing.

### **Heme/Onc Clinician and Pathology – Ordering Practices:**

- 1. Heme/Onc Clinician:** Order MyGenVar Myeloproliferative Screening Panel.
- 2. Hematopathologist:** MyGenVar Myeloid Hematology Gene Panel (including rapid FLT3)
  - a. Review bone marrow case (Bone Marrow with FISH if apply)
  - b. When applicable, order procedure/addendum **MHGP and FLT3** (rapid FLT3 testing).
- 3. Hematopathologist:** MyGenVar Myeloid Hematology Gene Panel
  - a. Review bone marrow case (Bone Marrow with FISH if apply)
  - b. When applicable, order procedure/addendum **MHGP** if FLT3 status is previously tested/known.
- 4. For dry tap bone marrow or specimens with insufficient DNA:**  
**Hematopathologist** consult with ordering **Heme/Onc Clinician** - Order additional bone marrow biopsy or perform molecular testing on peripheral blood specimen. **Heme/Onc Clinician** orders test Blood Nucleic Acid Extraction.

### **Oncology – Turnaround time (TAT):**

1. MyGenVar Myeloproliferative Screening Panel – Sequencing results available within 7-12 working days of laboratory receiving sample.
2. FLT3 test results available 3-5 working days after testing is ordered by the Hematopathologist.
3. MyGenVar Myeloid Hematology Gene Panel - Sequencing results available 7-12 working days after testing is ordered.

### **Molecular Diagnostics:**

1. Method for testing rapid FLT3 is PCR and capillary electrophoresis. Rapid FLT3 testing is reported on Tue and Fri.
2. Method for MyGenVar Myeloproliferative Screening Panel and MyGenVar Myeloid Hematology Gene Panel is Next Generation Sequencing. Next Generation Sequencing testing is reported on Tuesday.

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## DMI Respiratory View

As of February 1, 2020, influenza B virus more than doubles the number of influenza A and RSV cases. Traditional coronavirus sits in 4th place in terms of prevalence.

