MAYO CLINIC LABORATORIES

TEST CHANGE

Notification Date: November 5, 2024
Effective Date: Immediately

Myeloproliferative Neoplasm, *JAK2* V617F with Reflex to *CALR* and *MPL*, Varies

Test ID: MPNR

Explanation: The updated testing algorithm expands the JAK2 V617F positive reflex range from 0.06%-0.6% to 0.06%-2%, facilitating a more comprehensive testing algorithm. This range extends beyond the International Consensus Classification (ICC) recommendation of ≤ 1%.

Current Testing Algorithm	New Testing Algorithm
This reflex test sequentially evaluates for the common major gene variants associated with non-BCR-ABL1-positive myeloproliferative neoplasms until a variant is identified. The testing sequence is based on the reported frequency of gene variants in this disease group. Initial testing evaluates for the presence of the JAK2 V617F variant. If this result is negative or very low positive **(0.06%-0.6%)**, testing proceeds with assessment for CALR gene variants. If the CALR result is also negative, then testing proceeds to evaluate for variants in exon 10 of the MPL gene. If either JAK2 V617F **(>0.6%)** or CALR variants are detected in the process, the testing algorithm ends; therefore, the complete reflex is followed only in the event of sequential negative variant. An integrated report is issued with the summary of test results.	This reflex test sequentially evaluates for the common major gene variants associated with non-BCR-ABL1-positive myeloproliferative neoplasms until a variant is identified. The testing sequence is based on the reported frequency of gene variants in this disease group. Initial testing evaluates for the presence of the JAK2 V617F variant. If this result is negative or very low positive **(0.06%-2%)**, testing proceeds with assessment for CALR gene variants. If the CALR result is also negative, then testing proceeds to evaluate for variants in exon 10 of the MPL gene. If either JAK2 V617F **(>2%)** or CALR variants are detected in the process, the testing algorithm ends; therefore, the complete reflex is followed only in the event of sequential negative variant. An integrated report is issued with the summary of test results.

Questions

Contact Connie Penz, Laboratory Resource Coordinator at 800-533-1710.