

TO: VCU Health Physicians, House staff, and Nurses**FROM:** Lorin Bachmann, PhD *LB*
Co-Director, Clinical ChemistrySusan D. Roseff, MD *ADR*
Chair, Division of Clinical Pathology**DATE:** January 18th, 2024**Memo: Critical value added for the Methotrexate, End of Infusion laboratory order.**

Hematology-Oncology providers place orders for a blood methotrexate level to be collected at the end of the patient's therapeutic regimen to ensure that methotrexate concentrations have been reduced to non-toxic levels.

The therapeutic interval for methotrexate at the end of the patient's treatment regimen is less than or equal to 19.99 $\mu\text{mol/L}$. Values that exceed 19.99 $\mu\text{mol/L}$ are currently flagged HIGH in EPIC but are not flagged as critical values. Leucovorin therapy is required for elevated methotrexate to prevent severe end-organ toxicity. However, the providers are not currently receiving a critical value call from the laboratory, and therefore toxic methotrexate levels may be missed by the clinical team.

Effective February 1st, 2024, ordering providers will receive a critical value alert if the Methotrexate, End of Infusion order result is greater than or equal to 20.00 $\mu\text{mol/L}$.

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