Hematology Resource Page

Hemogram With Differential and Laboratory-Derived Smear Review

What's changing?

Starting Tuesday, November 17th, 2026 the Hemogram With Differential order (LAB2998) will automatically replace the Smear to Pathology order in Epic.

🩸 Clinician orders **Hemogram with Differential (LAB2998)**

🤖 Advanced hematology analyzer applies evidence-based rules and flags

🎯 Smear review occurs **only when laboratory-derived criteria are met**

🔬 Special Hematology performs slide review

✅ Determines whether findings warrant **Smear to Path**

👨‍🔬 **Smear to Path added only when indicated**

Why?

This change is designed to:

✅ Best laboratory stewardship practices

🔬 Alignment with current clinical evidence

⚙️ Leverages modern hematology analyzer capabilities

⏱️ Improved efficiency and turnaround time

📈 Focuses expert review on clinically significant findings

Ordering in Epic

1. Order **Hemogram with Differential — LAB2998** in Epic.

2. Searching for "smear" or "smear to path" will direct you to this order.

3. The laboratory will determine whether a smear and/or pathology review is indicated.

4. Review the integrated report and interpretive comments.

5. Use clinical judgment to determine additional testing, follow-up, or consultation.

Why laboratory-derived smear review?

Routine clinician-ordered peripheral blood smear reviews are generally not recommended when analyzer results, and laboratory criteria do not indicate the need for additional review.

Modern hematology analyzers provide reliable flagging systems that help laboratory professionals identify specimens requiring additional review.

Benefits

- Earlier reporting of clinically relevant findings
- Reduced delays associated with manual review
- More timely clinical decision-making

Improved turnaround time

- Traditional hematopathology review | 2–4 days |
- Laboratory-derived review process | Often within 1 business day of specimen collection |

Appropriate use of expertise

- Fewer unnecessary pathologist smear reviews
- Hematopathology resources focused on complex or clinically significant cases
- Increased laboratory efficiency
- Standardized analyzer-driven review criteria
- Streamlined workflows
- Reduced unnecessary escalations
- Improved consistency in smear-review practices

Integrated reporting

- One comprehensive patient report
- Pathology interpretation incorporated into the patient record when applicable
- Clear documentation and recommendations

What providers can expect

Common abnormalities that previously prompted providers to order a Smear to Pathology for adult patients may now be addressed through interpretive comments included with the Hemogram with Differential report.

These comments are intended to support clinical correlation and appropriate follow-up. A laboratory-derived comment does not replace clinical judgment or specialty consultation when clinically indicated.

- **Isolated abnormal RDW:** RDW only abnormal parameter: *Isolated abnormal RDW is not clinically significant.*
- **Thrombocytosis:** Platelet only abnormal (375-449): *Thrombocytosis is often reactive in nature. Recommend correlation with markers of inflammation and/or evidence of iron deficiency. If unexplained thrombocytosis persists for greater than 3 months, recommend Hematology consultation.*
- **Monocytosis:** MO# only abnormal (1.0 -1.5): *Absolute monocytosis is commonly seen in reactive conditions including chronic inflammatory disorders. If unexplained, recommend follow-up in 3 months to evaluate for persistence.*
- **Microcytosis:** MCV only abnormal (decreased): *Microcytosis is present. Correlation with iron studies recommended. If iron studies are normal, consider thalassemia.*
- **Macrocytosis:** MCV only abnormal (increased 99.1 - 110): *Macrocytosis is present. Causes of macrocytosis include vitamin B12 and/or folate deficiency, liver disease, hypothyroidism, chemotherapy, reticulocytosis, and myelodysplasia.*
- **Microcytic Anemia:** RBC normal or low, Hgb low, HCT normal or low, MCV low, MCH normal or low, MCHC low, RDW normal or high, PLT normal or elevated up to 550: *Correlation with serum iron studies as well as potential sites of blood loss recommended.*
- **Macrocytic Anemia:** Patient is 18+ years old AND WBC normal or flagged high AND RBC normal or flagged low AND Hgb flagged low AND HCT flagged low AND MCV flagged high with result between 99.1 - 110 AND MCH normal or flagged low AND MCHC normal or flagged low AND RDW normal or flagged high AND PLT normal or flagged high with result between 375 – 449 AND NE# (auto) normal or flagged high: *Macrocytosis is present. Causes of macrocytosis include vitamin B12 and/or folate deficiency, liver disease, hypothyroidism, chemotherapy, reticulocytosis, and myelodysplasia.*
- **Isolated neutrophilia:** Patient is 18+ years old AND WBC normal, NE# increased & IG# <0.3 (but within normal range) OR WBC normal, NE# increased & IG <0.3 (but is abnormal increased) OR WBC abnormal increased (but not critical), NE# increased & IG # <0.3 (but within normal range) OR WBC abnormal increased (but not critical), NE# increased & IG # <0.3 (but is abnormal increased): *Neutrophilia may be seen in the setting of infectious or inflammatory disease states. Neutrophilia may also be seen in the setting of corticosteroid use.*

- **Polycythemia (grey zone)**: Patient is 18+ years old AND Male: HGB 16.5 - 16.9 or HCT 49.5 - 50.7: *Hemoglobin and/or Hematocrit values may represent early/evolving polycythemia. Correlation with clinical and laboratory findings, including secondary causes of polycythemia, is recommended.*
- **Polycythemia:** Patient is 18+ years old AND Female: HGB >16.0 or HCT >48.0 OR Male: HGB > 17.0 or HCT > 51.0: *Correlation with clinical and laboratory findings, including evaluation of secondary causes of polycythemia as well as a possible myeloproliferative neoplasm, is recommended.*

The change has been reviewed and approved by the Essentia Clinical Practice Committee, Pathology, and Epic Support teams.

Questions about this change may be directed to:

Dr. Benjamin Koch

Laboratory Services