
Lab Dept: Hematology

Test Name: DIFFERENTIAL

General Information

Lab Order Codes: ADIF

Synonyms: Differential White Blood Cell (WBC) Count, Blood; Manual Diff; Diff; WBC Differential; Leukocyte Differential Count

CPT Codes: 85007 – Blood smear, with manual differential WBC count

Test Includes: 100-cell differential with slide review for WBC, RBC, and Platelet morphology

Logistics

Test Indications: Determination of qualitative and quantitative variations in white blood cells. Useful in the evaluation of anemia, leukemia, infections, inflammatory states, and inherited disorders of red cells, white cells, and platelets.

Lab Testing Sections: Hematology

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 2 hours

Special Instructions: A WBC count must accompany a differential order.

Specimen

Specimen Type: Whole blood

Container: EDTA Lavender top tube or EDTA Lavender Microtainer®

Draw Volume: Lavender (EDTA) 2 mL Vacutainer tube: Minimum fill volume of **1 mL** is required. Allow the tube to fill until the vacuum is exhausted, and blood flow ceases.

Lavender (EDTA) Microtainer® tube: Minimum of **0.5 mL** is required. To be used for neonates, collected volumes <1.0 mL, or when a capillary (skin puncture) collection is required.

Processed Volume:	N/A
Collection:	Venipuncture or capillary draw
Special Processing:	Lab Staff: Do Not centrifuge. Process as whole blood.
Patient Preparation:	None
Sample Rejection:	Improper tube; clotted sample; underfilled tube; overfilled; mislabeled or unlabeled specimens

Interpretive

Reference Range:	Age dependent, Refer to CBC Reference Value Table
Critical Values:	Presence of blasts
Limitations:	Because of sampling, large statistical variation exists, particularly with the 100-cell count manual method and with low incidence cells.
Methodology:	Light Microscopy or Digital Image analysis
References:	Harmening DH (1997) Clinical Hematology and Fundamentals of Hematology, 3 rd ed Oski and Nathan (1998) Hematology of Infancy and Childhood, 5 th ed
Updates:	4/1/2025: Updated CPT verbiage, and volume requirements