
Lab Dept: Hematology

Test Name: CBC, PLATELET WITH DIFFERENTIAL

General Information

Lab Order Codes: CBC

Synonyms: Complete Blood Count (CBC) with Differential; Complete Blood Count (CBC); CBC, Hemogram with Differential; Complete Blood Count (CBC), Platelet with Differential (PLTC)

CPT Codes: 85023 – Hemogram and platelet count, automated, and manual differential WBC count (CBC)
85025 – Hemogram and platelet count, automated, and automated complete differential WBC count (CBC)

Test Includes: WBC, RBC, HGB, HCT, MCV, MCH, MCHC, RDW, Platelet Count, MPV, WBC Differential

Logistics

Test Indications: Useful for the evaluation of anemia, leukemia, reaction to inflammation and infections, peripheral blood cellular characteristics, state of hydration and dehydration, polycythemia, hemolytic disease of the newborn, and ABO incompatibilities.

Lab Testing Sections: Hematology

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 4 hours

Special Instructions: N/A

Specimen

Specimen Type: Whole blood

Container: Lavender (EDTA) top tube , Lavender (EDTA) Microtainer®

Draw Volume: 2 mL blood in a 2 mL Lavender top tube
OR
0.5 mL in a EDTA Microtainer®

Processed Volume: Minimum: 0.5 mL blood

Stability: Optimal when run within in 4 hours of collection.
Stable for 24 hours at room temperature.
Stable for 36 hours at 2 – 8 degrees C.

Collection: Routine venipuncture or capillary draw

Special Processing: Lab Staff: **Do Not** centrifuge

Patient Preparation: None

Sample Rejection: Improper tube; clotted sample; underfilled tube; overfilled tube; mislabeled or unlabeled specimen

Interpretive

Reference Range: Age and Sex Dependent; [Refer to CBC Reference Value](#)

Critical Values:

Test:	Value	Hem/Onc Clinics
Hematocrit:	<21% or >65%	None
Hemoglobin:	<7.0 gm/dL	<5.0 gm/dL
Platelets:	<50,000 or >1,000,000	<5,000
WBC:	Newborn: <5,000 or >35,000	None
	Others: <2,000 or >25,000	None
Differential/ Morphology:	Presence of Blasts; however, if the presence of Blasts has been reported within the last 30 days no notification is necessary.	Presence of Blasts; however, if the presence of Blasts has been reported within the last 30 days no notification is necessary.

Limitations: Characteristics that may affect results include: lipemia (or patients receiving lipids), icterus and cold agglutinins.

Lipemia, elevated WBC and cold agglutinins will prolong the turnaround time of an occasional specimen.

Methodology: Automated Cell Counter

Contraindications: Differential will not be done on samples with a WBC <0.1 x 10³/uL

References:

Nathan, DG, et al (1987) Hematology of Infancy and Childhood, WB Saunders pp.1680-1688

Normal Reference Range Study (1994) Children's Hospitals and Clinics, Minneapolis and St Paul, MN, Hematology Laboratory

Updates:

3/21/2011: Critical value statement for Blasts previously listed as "Presence of Blasts".

11/12/2015: Updated differential WBC requirements.

9/26/2018: Update to lipemic sample information.