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**Lab Dept:** Hematology

**Test Name:** CBC, PLATELET WITH DIFFERENTIAL

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***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

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***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:** **Do Not** collect specimen while lipids are being infused or for 4 hours post-infusion.

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***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

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***Interpretive***

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

**Critical Values:**

Test:	Value	Hem/Onc Clinics
<b>Hematocrit:</b>	<21% or >65%	None
<b>Hemoglobin:</b>	<7.0 gm/dL	<5.0 gm/dL
<b>Platelets:</b>	<50,000 or >1,000,000	<5,000
<b>WBC:</b>	Newborn: <5,000 or >35,000	None
	Others: <2,000 or >25,000	None
<b>Differential/ Morphology:</b>	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:** Lipemia, elevated WBC and cold agglutinins will prolong the turn around time of an occasional specimen.

**Methodology:** Automated Cell Counter

**Contraindications:**

Differential will not be done on samples with a WBC  $<0.1 \times 10^3/\mu\text{L}$

**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.