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

### 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 an EDTA Microtainer®

**Processed Volume:**
Minimum: 0.5 mL blood

**Stability:**
Optimal when run within 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:**

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

**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 x 10^9/uL

**References:**

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.