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**Lab Dept:** Hematology

**Test Name:** BONE MARROW ASPIRATE AND BIOPSY

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***General Information***

**Lab Order Codes:** BM, BMB, BM2, MB2

NOTE: This test cannot be ordered by the nursing unit. See special instructions.

**Synonyms:** Bone Marrow; Bone Marrow Aspirate; Bone Marrow Biopsy

**CPT Codes:** 85097.26 - Bone marrow; smear interpretation only, with or without differential cell count  
85060.26 - Blood smear, peripheral, interpretation by physician with written report  
88305 - Surgical pathology; gross and microscopic  
88311 - Decalcification

**Test Includes:** Pathologist interpretation of bone marrow and peripheral blood smears, sections of marrow clot and sections of decalcified bone biopsy.

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***Logistics***

**Test Indications:** Useful for evaluation of qualitative and quantitative abnormalities of hematopoiesis, the presence of metastatic tumor, storage diseases, systemic infections, and follow up of neoplastic diseases.

**Lab Testing Sections:** Anatomic Pathology, Hematology

**Phone Numbers:** MIN Lab: 612-813-6280

STP Lab: 651-220-6550

**Test Availability:** Monday - Friday

**Turnaround Time:** Preliminary report: 1 - 3 days

Final report: 3 - 5 days

**Note:** Analytic time could vary depending on the complexity of the case.

**Special Instructions:** Call Hematology Department to schedule test. Notify personnel of all tests to be done by faxing the bone marrow order to the laboratory.

Minneapolis FAX: 612-813-6951

St. Paul FAX: 651-220-5280

“Complete Blood Count (CBC) with Differential” must be ordered and scheduled for the same day as this procedure.

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### ***Specimen***

**Specimen Type:** Bone marrow

**Container:** Slides, container with B5 fixative, plastic 20-mL syringe(s)

**Draw Volume:** Dependent on physician orders and special studies in which patient is entered.

**Processed Volume:** Core biopsy, 8 direct smears, 1 mL clot, 8 concentrate smears and 4 peripheral smears, core imprints

**Collection:** The bone marrow specimen will be procured by a physician or a nurse practitioner assisted by a hematology technologist.

**Special Processing:** N/A

**Patient Preparation:** Caregiver explains the procedure to patient. Aseptic aspiration under local anesthetic is performed.

**Sample Rejection:** Mislabeled or unlabeled specimens

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### ***Interpretive***

**Reference Range:** Interpretive report

**Critical Values:** N/A

**Limitations:** Interpretation may be limited by specimen quality. Presence of normal or non-diagnostic marrow at one site may not exclude the possibility of disease elsewhere in the marrow. Aspiration prior to biopsy does not disturb the estimation of cellularity of the biopsy at that same site. The reverse is not true, however. Obtaining the biopsy prior to aspiration will cause the aspirate to clot.

**Methodology:** A plastic syringe is used to aspirate marrow from cancellous bone and/or a core biopsy is obtained by using special needles (e.g., Jamshidi needle). The specimens are studied microscopically using a variety of routine and special stains and/or studied using molecular biologic techniques.

**Contraindications:**

According to ordering physician. Sternal site- aneurysm of thoracic aorta, severe bleeding diathesis.

**References:**

Harmening DH (1997) Clinical Hematology and Fundamentals of Hemostasis, 3rd ed

Oski and Nathan (1998) Hematology of Infancy and Childhood, 5<sup>th</sup> ed