

CODING & BILLING

Coding Bone Marrow Procedures: Something Old, Something New

by Cindy Parman, CPC, CPC-H, RCC

The inside of bone is not solid, but is composed of a fine network of mesh-like bone called bone marrow. Bone marrow is found at the center of the bones, especially the areas of the skull, sternum, ribs, backbone, and pelvis. Approximately 95 percent of blood cells are formed in the bone marrow, and these cells are released into the blood stream at various stages of development. Bone marrow that actively produces blood cells is called red marrow; marrow that no longer produces blood cells is called yellow marrow.

Due to the short life span of mature blood cells, which survive from a few days to a few months, new blood cells are constantly in production. In healthy adults, the body produces roughly 100 billion red cells and 400 million white cells each hour. To determine the appropriate treatment for a patient, it may be necessary to aspirate or biopsy the patient's bone marrow for pathologic analysis. This type of examination can diagnose blood or bone marrow cancers, detect a malignancy that has spread to the bone marrow from another site, check for infections, measure the effectiveness of treatment, or determine how well the bone marrow could function if aggressive chemotherapy were given.

Bone Marrow Biopsy and/or Aspiration

Bone marrow biopsy describes the technique of removing small pieces of cancellous bone via a needle or trocar. Generally, the pelvic ilium is biopsied at the superior iliac spine. Other sites, such as the sternum, the spinous processes, or the tibia, may be used. A bone marrow biopsy may be per-

formed to diagnose certain types of blood and bone marrow malignancies, to determine if other cancers involve the marrow, or as part of the staging process for malignant conditions. The procedure code is:

- **38221:** Bone marrow; biopsy, needle, or trocar.

A bone marrow aspiration may be performed independent of a bone marrow biopsy, or may immediately precede or follow a biopsy. A bone marrow aspiration is a sufficient procedure when the relationship of the infiltrating cells to the bone marrow is not required for appropriate patient management. For example, when a physician is following a known case of leukemia, then only the nature of the cellular population needs to be evaluated. The procedure code for a bone marrow aspiration is:

- **38220:** Bone marrow; aspiration only.

When both a bone marrow aspiration and bone marrow biopsy are performed through the same incision during a single encounter on a Medicare patient, the Centers for Medicare & Medicaid Services (CMS) requires the physician and/or facility to assign a HCPCS Level II code for the aspiration portion of the service:

- **+G0364:** Bone marrow aspiration performed with bone marrow biopsy through the same incision on the same date of service.

The healthcare organization assigns both the code for bone marrow biopsy (**38221**) and the add-on code **G0364** for the bone marrow aspiration. Because code **G0364** is an add-on HCPCS Level II code, it will never be the only code charged; it

must be “added-on” to the code for the primary procedure or service. In this scenario, code **G0364** replaces code **38220** for the aspiration portion of the procedure.

Remember that the use of **modifier 59** (distinct procedure) on code **38220** (bone marrow aspiration) when billed with code **38221** (bone marrow biopsy) will be a *rare* occurrence. To bill codes **38220** and **38221** and append a modifier, the bone marrow samples must be obtained from different anatomic sites, such as contralateral iliac crests or iliac and sternum, or during separate patient encounters.¹ As a result, when bone marrow biopsy and aspiration are carried out through the same incision or at the same anatomic site, most non-Medicare payers will reimburse for only the biopsy code and “bundle” the aspiration code (see Table 1).

Harvesting for Transplant

Bone marrow transplantation (BMT) involves extracting bone marrow containing normal stem cells from the patient or a healthy donor, and infusing it back into the patient after therapy (autologous transplant) or into a recipient (allogeneic transplant) whose bone marrow cannot manufacture sufficient normal cells. This procedure may be considered when healthy cells have been destroyed due to disease processes or due to treatments, such as chemotherapy or radiation therapy. There is a unique procedure code for this part of the process:

- **38230:** Bone marrow harvesting for transplantation.

The bone marrow is generally harvested under general anesthesia, and obtained from the iliac crest with a special needle and syringe. The bone marrow is then administered to the patient through a catheter inserted into a large vein in the upper chest. From the bloodstream, the bone mar-

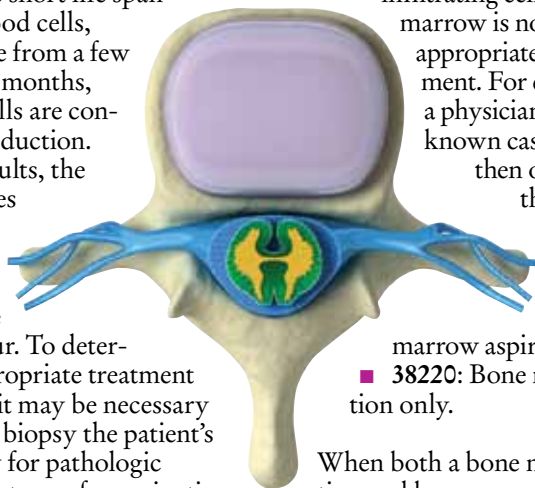


Table 1. Bone Marrow Biopsy & Aspiration

Scenario	Codes
Bone Marrow Biopsy (sole procedure)	38221
Bone Marrow Aspiration (sole procedure)	38220
Bone Marrow Biopsy & Aspiration (Medicare)	38221 G0364
Bone Marrow Biopsy & Aspiration (non-Medicare)	38220* 38221
Bone Marrow Biopsy & Aspiration Separate noncontiguous anatomic sites	38220-59 38221

*This code may be bundled into the bone marrow biopsy procedure code depending on individual insurance payer policy.

row cells will migrate into the bones and begin to produce normal blood cells. The infusion or transplant of harvested bone marrow is reported with one of the following codes:

- **38240:** Bone marrow or blood-derived peripheral stem cell transplantation; allogeneic.
- **38241:** Bone marrow or blood-derived peripheral stem cell transplantation; autologous.

Physician work for bone marrow transplant includes patient evaluation before the service, direct supervision during transplant, and the post-transplant assessment.

New Codes for Intramuscular Therapy

Peripheral artery disease (PAD) is a common circulatory problem in which narrowed arteries reduce blood flow, especially to the limbs. A condition known as critical limb ischemia represents the most dramatic clinical outcome.²The advanced stages of PAD may include gangrene and ulceration, which could result in amputation of the affected limb. In patients affected by ischemia of the limb, local intramuscular autologous bone marrow cell therapy has demon-

strated encouraging results by revascularizing the affected area.³

Effective July 1, 2011, three new CPT® Category III procedure codes for these services are available:

- **0263T:** Intramuscular autologous bone marrow cell therapy, with preparation of harvested cells, multiple injections, one leg, including ultrasound guidance, if performed; complete procedure involving unilateral or bilateral bone marrow harvest.
- **0264T:** Intramuscular autologous bone marrow cell therapy, with preparation of harvested cells, multiple injections, one leg, including ultrasound guidance, if performed; complete procedure excluding bone marrow harvest.
- **0265T:** Intramuscular autologous bone marrow cell therapy, with preparation of harvested cells, multiple injections, one leg, including ultrasound guidance, if performed; unilateral or bilateral bone marrow harvest only for intramuscular autologous bone marrow cell therapy.

The definition of these procedure codes include preparation of harvested cells, all injection services, and image

guidance required to complete the procedure. Depending on the individual code definition, the bone marrow harvest may also be included and not separately charged.

Category III CPT codes ending with the letter “T” allow data collection for emerging technology, services, and procedures, but they are not consistently reimbursed by all insurers. These codes may or may not eventually receive a standard Category I CPT code. Regardless, a Category III code will be archived five years from its date of publication in the code book unless it is demonstrated that a temporary code is still needed.

Medicare has added these new procedure codes to the payable list for the Hospital Outpatient Prospective Payment System (HOPPS), effective July 1, 2011. However, remember to contact commercial and managed care payers to determine their coverage guidelines for these new procedure codes. ☐

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References

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- ²Cobellis G, Silvesetroni A, Lillo S, et al. Long-term effects of repeated autologous transplantation of bone marrow cells in patients affected by peripheral arterial disease. *Bone Marrow Transplant.* 2008;42:667-672. Available online at: <http://www.nature.com/bmt/journal/v42/n10/pdf/bmt2008228a.pdf>. Last accessed July 1, 2011.
- ³Tateishi-Yuyama E, Matsubara H, Murohara T, et al. Therapeutic angiogenesis for patients with limb ischaemia by autologous transplantation of bone-marrow cells: a pilot study and a randomised controlled trial. *Lancet.* 2002;360(9331):427-35.