Vertebroplasty and Percutaneous Vertebral Augmentation

Origination Date: December 16, 2002 Vertebroplasty
August 20, 2003 Kyphoplasty
Review Date: May 15, 2013
Next Review: May 2014

DESCRIPTION OF PROCEDURE OR SERVICE
Vertebroplasty
Percutaneous vertebroplasty is a therapeutic, interventional radiologic procedure, which consists of the injection of a biomaterial (usually polymethylmethacrylate- bone cement) under imaging guidance (either fluoroscopy or CT) into a cervical, thoracic or lumbar vertebral body lesion for the relief of pain and the strengthening of bone.

Percutaneous Vertebral Augmentation
This is also known as balloon-assisted Percutaneous Vertebroplasty or Kyphoplasty. The procedure is similar to percutaneous vertebroplasty in that stabilization of the collapsed vertebra is accomplished by the injection of the same biomaterial into the body of the vertebra.

The primary difference is that the fracture is partially reduced with the insertion of an inflatable balloon tamp. Once inflated, the balloon tamp (plug) restores some height to the vertebral body, while creating a cavity that is filled with bone cement.

POLICY STATEMENT
Coverage will be provided for vertebroplasty or percutaneous vertebral augmentation when it is determined to be medically necessary because the medical criteria and guidelines shown below are met.

BENEFIT APPLICATION
Please refer to the member’s individual Evidence of Coverage (E.O.C.) for benefit determination. Coverage will be approved according to the E.O.C. limitations if the criteria are met.

Coverage decisions will be made in accordance with:
- The Centers for Medicare & Medicaid Services (CMS) national coverage decisions;
- General coverage guidelines included in original Medicare manuals unless superseded by operational policy letters or regulations; and
- Written coverage decisions of local Medicare carriers and intermediaries with jurisdiction for claims in the geographic area in which services are covered.
Benefit payments are subject to contractual obligations of the Plan. If there is a conflict between the general policy guidelines contained in the Medical Coverage Policy Manual and the terms of the member’s particular Evidence of Coverage (E.O.C.), the E.O.C. always governs the determination of benefits.

**INDICATIONS FOR COVERAGE**

A. The principal indications for Percutaneous Vertebroplasty are as follows:

1. Osteolytic vertebral metastasis and/or myeloma with severe back pain related to a destruction of the vertebral body, not involving the major part of the cortical bone;
2. Vertebral hemangiomas or eosinophilic granulomas of the spine with aggressive clinical signs (severe pain or nervous compression) and/or aggressive radiological signs;
3. Steroid induced fractures (pathological fracture of vertebrae);
4. Osteoporotic vertebral collapse with persistent debilitating pain which has not responded to less invasive medical treatment (e.g., trial of clinically appropriate analgesic medications, skilled therapies, restricted activity/bracing, or other noninvasive treatments);
5. Unstable fractures due to osteoporosis, (Kummell’s Disease).

B. The indications for Percutaneous Vertebral Augmentation are as follows:

1. Osteolytic vertebral metastasis and/or myeloma with severe back pain related to a destruction of the vertebral body, not involving the major part of the cortical bone.
2. Painful, debilitating osteoporotic vertebral collapse/compression fractures that have not responded to accepted standard medical treatment for several weeks (e.g., a period of immobilization such as restricted activity/bracing and analgesia/scheduled narcotic).

For both Percutaneous vertebroplasty and vertebral augmentation, the decision for treatment should be multidisciplinary and take into consideration the local and general extent of the disease. This includes the spinal level involved, the severity of pain experienced by the patient, his/her neurologic condition, previous treatments and their outcomes, the general state of health and life expectancy.

**Contraindications for both Vertebroplasty and Percutaneous Vertebral Augmentation**

A. **Absolute Contraindications for both procedures:**

1. Uncorrected coagulation disorders or anticoagulation therapy;
2. Asymptomatic vertebral compression fracture;
3. Osteomyelitis or local infection;
4. Burst fracture with retropulsed fragments;
5. Known allergy to materials used in either procedure.
B. **Absolute Contraindications for Percutaneous Vertebral Augmentation - only:**
   1. Painful benign neoplasm’s;
   2. Fractures caused by high-velocity injury;
   3. Other causes of back pain not due to fracture;
   4. Associated with widened pedicles or retropulsion of bone/ burst fracture.

C. **Relative Contraindications for Vertebroplasty:**
   1. Extensive and/or significant vertebral collapse or significant neurological symptoms related to compression of the vertebrae.

D. **Relative Contraindications for Percutaneous Vertebral Augmentation:**
   1. Extensive vertebral destruction;
   2. Significant vertebral collapse and;
   3. Systemic or local infections.

**LIMITATIONS**

A. Neither vertebroplasty nor percutaneous vertebral augmentation is indicated for treatment of lesions of the sacrum or coccyx.

B. These procedures are not to be considered prophylactic for osteoporosis of the spine or for chronic back pain of long-standing duration, even if associated with old compression fractures.

C. Neurologic symptoms related to compression or radiculopathy.

D. Not to be used to treat pain that has shown progressive improvement with non-invasive measures.

**BILLING/ CODING/PHYSICIAN DOCUMENTATION INFORMATION**

This policy may apply to the following codes. Inclusion of a code in the section does not guarantee reimbursement.

*Applicable codes:*

Vertebroplasty Codes: 22520; 22521; 22522; 72291, 72292

The Plan may request medical records for determination of medical necessity. When medical records are requested, letters of support and/or explanation are often useful, but are not sufficient documentation unless all specific information needed to make a medical necessity determination is included.
Medical Coverage Policy
Vertebroplasty and Percutaneous Vertebral Augmentation

References:

Policy Implementation/Update Information:
Revision Date: 8/20/03 Policy renamed to Vertebroplasty and Kyphoplasty, Percutaneous, 8/2003. Previous policy name “Vertebroplasty Percutaneous-Medicare + Choice.”
Revision Date: September 2009: Code review only.
Revision Date: Added language from LCDs, removed CPT code 22899
Revision Date: 1/05/11 Policy renamed to Vertebroplasty and Percutaneous Vertebral Augmentation, per new CMS policy.
  - Description of Procedure/Service section: Updated with current CMS language. Replaced Kyphoplasty with Percutaneous Vertebral Augmentation.
  - Indications For Coverage section: For Vertebroplasty Coverage: Bullets 3 and 5 pertaining to retired policies and Contraindications section were removed. First two bullet items added from LCD L31344.
  - For Percutaneous Vertebral Augmentation: Updated language from new policy, bullet 3 pertaining to retired policies removed, and added bullet 1, from new policy.
  - When Coverage Will Not Be Approved section: Removed this section and associated language pertaining to retired LCD L22552 and replaced with the Contraindications section from LCD L31344 and L17864 for clarity.
  - Reference section: New CMS policy added and retired policies L22552 and L9710 removed.
  - Limitations: Added this section and language to policy to mirror new CMS policy.
Revision Date: 03/15/2013: Annual review; Reformatted and to mirror NCD.

Approval Dates:
Medical Coverage Policy Committee: May 15, 2013

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