Medical Coverage Policy | Kyphoplasty and Vertebroplasty

EFFECTIVE DATE: 04/01/2019
POLICY LAST UPDATED: 04/16/2019

OVERVIEW

Compression fractures or neoplastic conditions affecting vertebral bodies can result in pain and/or disability that may require narcotic intervention. Current therapeutic options are limited by the nature of the lesions as well as the underlying disease. Palliative treatments have focused on reduction of pain and include bed rest, narcotic analgesics (either oral or by injection), braces, and surgery. Complications associated with treatments, particularly with the associated prolonged bed rest, include pneumonia, deep venous thrombosis with the associated risk of pulmonary embolism, and osteoporosis. Newer treatment options include percutaneous vertebroplasy and vertebral augmentation

This policy is applicable for BC for Medicare only. For commercial products, please refer to the following policy: Preauthorization via Web-Based Tool for Procedures

MEDICAL CRITERIA

BlueCHiP for Medicare Products

Percutaneous vertebroplasty is medically necessary when one of the following criteria are met:

- An osteoporotic or osteopenic compression fracture of the lumbar or thoracic vertebrae with persistent debilitating pain that has not responded to accepted standard medical treatment generally within six (6) weeks to three months;
- Osteolytic metastasis with severe back pain related to a destruction of the vertebral body;
- Multiple myeloma with severe back pain related to a destruction of the vertebral body;
- Painful and/or aggressive vertebral hemangiomas (or eosinophilic granulomas of the spine);
- Painful vertebral fracture associated with osteonecrosis (Kummell Disease); and
- Reinforcement, or stabilization, of vertebral body prior to surgery.

Percutaneous vertebral augmentation (e.g. Kyphoplasty)is medically necessary when one of the following criteria are met:

- An osteoporotic or osteopenic compression fracture of the lumbar or thoracic vertebrae with persistent debilitating pain that has not responded to accepted standard medical treatment;* and/or
- Osteolytic vertebral collapse secondary to multiple myeloma or osteolytic metastatic disease causing persisting or progressive pain.

PRIOR AUTHORIZATION

Prior authorization is required for BlueChip for Medicare via the online tool for participating providers. See the Related Policies section.

POLICY STATEMENT

BlueCHiP for Medicare Products

Percutaneous vertebroplasty and percutaneous vertebral augmentation (e.g. Kyphoplasty) are medically necessary when the above criteria are met.

Percutaneous vertebroplasty or percutaneous vertebral augmentation for chronic back pain of long-standing duration, even if associated with old compression fractures, is considered not medically necessary unless pain is localized to a specific chronic fracture and medical therapy has failed.
Absolute contraindications to both percutaneous vertebroplasty and vertebral augmentation procedures include:

- any existing uncorrected coagulopathy or anticoagulation therapy;
- a known allergy to any materials used in the procedure such as the contrast media or bone cement;
- ongoing local or systemic infection;
- retropulsed bone fragments resulting in spinal canal compromise and myopathy; and
- spinal canal compromise secondary to tumor resulting in myelopathy.

Relative contraindications to percutaneous vertebroplasty include:

- significant vertebral collapse (i.e., vertebra reduced to less than one-third [l/3] of its original height);
- neurologic symptoms related to the compression of the vertebrae;
- radiculopathy in excess of vertebral pain caused by a compressive syndrome unrelated to vertebral collapse;
- asymptomatic retropulsion of a fracture fragment causing significant spinal canal compromise;
- asymptomatic tumor extension into the epidural space; and/or
- extensive vertebral destruction (extreme caution must be used in these patients during cement injection to prevent new or further neurologic compression that might result from leakage of the acrylic polymer into the epidural space).

Relative contraindications to percutaneous vertebral augmentation include:

- painful benign neoplasms;
- fractures caused by high-velocity injury; or
- other causes of disabling back pain not due to acute fracture.

COVERAGE

Benefits may vary between groups and contracts. Please refer to Evidence of Coverage for applicable surgery benefit/coverage.

BACKGROUND

Percutaneous vertebroplasty is a minimally invasive procedure used to treat vertebral compression fractures by injecting bone cement (usually methylmethacrylate) directly into the vertebral body. This stabilizes the structure and provides immediate pain relief in many cases. Percutaneous vertebroplasty is performed under anesthesia (including moderate sedation) and fluoroscopic or computed tomography (CT) guidance. Follow-up CT scanning may be performed within eight (8) hours in order to assess the distribution of the cement within the vertebrae and to detect any unwanted leaks.

Vertebral augmentation is a newer minimally-invasive technique with potential advantages over vertebroplasty, including lower risk of cement extravasation and better restoration of vertebral body height. Vertebral augmentation differs from vertebroplasty in that initially the fracture itself is partially reduced by expanding the intrabody spaces with an inflatable bone tamp or mechanical device displacing bone to create a space. Then, the bone filler (e.g., methylmethacrylate or bone substitutes) is gently injected into the vertebral body. The procedure is performed with fluoroscopic or CT guidance. The goal of this procedure is to restore height to the collapsed vertebral body which reduces kyphosis and to improve the patient's pain and function.

Radiographic studies to identify the fracture, estimate the duration of the fracture, define the fracture anatomy, and assess for posterior vertebral body wall deficiency should be part of preoperative planning for vertebroplasty or vertebral augmentation surgery. Lateral radiographs are essential for planning the trajectory of any percutaneous procedure. MRI and bone scan have proven to be useful in determining the acuity of a vertebral compression fracture

A pathologic fracture is defined as "one due to weakening of the bone structure by pathologic processes, such

as neoplasia, osteomalacia, osteomyelitis, and other disease." They are also called "secondary fractures and spontaneous fractures" (Dorland's Illustrated Medical Dictionary 2000; 29th edition). Vertebral compression fractures due to osteoporosis are considered pathologic fractures. A "recent" compression fracture is defined as one which demonstrates uptake on a bone scan or exhibits increased intensity on fluid-sensitive MRI sequences.

The decision for treatment should be multidisciplinary and consider such factors as the extent of disease, the underlying etiology, the spinal level involved, the severity of the pain, the nature of any neurologic dysfunction, the outcome of any previous non-invasive treatment attempts, and the general state of the patient's health.

CODING

BlueCHiP for Medicare

The following codes are covered when the medical criteria is met

22510 Percutaneous vertebroplasty (bone biopsy included when performed), 1 vertebral body, unilateral or bilateral injection, inclusive of all imaging guidance; cervicothoracic

22511 Percutaneous vertebroplasty (bone biopsy included when performed), 1 vertebral body, unilateral or bilateral injection, inclusive of all imaging guidance; lumbosacral

22513 Percutaneous vertebral augmentation, including cavity creation (fracture reduction and bone biopsy included when performed) using mechanical device (eg, kyphoplasty), 1 vertebral body, unilateral or bilateral cannulation, inclusive of all imaging guidance; thoracic

22514 Percutaneous vertebral augmentation, including cavity creation (fracture reduction and bone biopsy included when performed) using mechanical device (eg, kyphoplasty), 1 vertebral body, unilateral or bilateral cannulation, inclusive of all imaging guidance; lumbar

The following are add on codes and would be covered if the primary procedure is approved

22512 Percutaneous vertebroplasty (bone biopsy included when performed), 1 vertebral body, unilateral or bilateral injection, inclusive of all imaging guidance; each additional cervicothoracic or lumbosacral vertebral body (List separately in addition to code for primary procedure)

22515 Percutaneous vertebral augmentation, including cavity creation (fracture reduction and bone biopsy included when performed) using mechanical device (eg, kyphoplasty), 1 vertebral body, unilateral or bilateral cannulation, inclusive of all imaging guidance; each additional thoracic or lumbar vertebral body (List separately in addition to code for primary procedure)

RELATED POLICIES

Preauthorization via Web-Based Tool for Procedures

PUBLISHED

Provider Update June 2019
Provider Update July 2017

REFERENCES:

1. National Government Services and other Medicare contractors' Local Coverage Determinations/Local Medical Review Policies. Local Coverage Determination (LCD): Vertebroplasty and Vertebral Augmentation (Percutaneous) (L33569)

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