Vertebroplasty/Kyphoplasty

Origination: 09/17/13	**Revised:** 7/24/20	**Annual Review:** 12/08/22

Purpose:

To provide Vertebroplasty/Kyphoplasty guidelines for Population Health and Provider Alliances associates to reference when making benefit determinations.

Definition

- Vertebroplasty and kyphoplasty are fluoroscopic-guided injections of polymethyl methacrylate cement into a collapsed vertebral body. The intent is to relieve pain, reduce kyphosis, and prevent further fracture.

Coverage Guidelines

- Vertebroplasty or Kyphoplasty may be indicated for **ALL** of the following:
  - **1 or more** of the following:
    - Osteoporotic compression fracture and **ALL** of the following:
    - Vertebral height loss of 50% to 70%;
    - Fracture occurred within past three (3) months;
  - Vertebral fracture or severe osteolysis with impending fracture due to neoplasm (e.g., multiple myeloma, metastatic tumor, hemangioma);
  - Stable fracture involving posterior elements;
  - Evidence that specific level of collapse is source of symptoms (i.e., localized pain);
  - Severe pain causing Member to be confined to bed or unable to perform activities of daily living;
  - Failure of noninvasive treatment to manage pain including bracing and analgesics;
  - No known or suspected osteomyelitis of involved vertebra;
  - Only outpatient treatment will be approved; procedure does not merit an inpatient admission.

References:

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2. Kasperk C, et al. Treatment of painful vertebral fractures by kyphoplasty in patients with primary osteoporosis: a prospective nonrandomized controlled study. Journal of Bone and Mineral Research 2005;20(4):604-12.
3. Pflugmacher R, Beth P, Schroeder RJ, Schaser KD, Melcher I. Balloon kyphoplasty for the treatment of pathological fractures in the thoracic and lumbar spine caused by metastasis: one-year follow-up. Acta Radiologica 2007;48(1):89-95.
4. Lavelle W, Carl A, Lavelle ED, Khaleel MA. Vertebroplasty and kyphoplasty. Medical Clinics of North America 2007;91(2):299-314.

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6. Taylor RS, Taylor RJ, Fritzell P. Balloon kyphoplasty and vertebroplasty for vertebral compression fractures: a comparative systematic review of efficacy and safety. Spine 2006;31(23):2747-55.
7. Hollingworth W, Jarvik JG. Evidence on the effectiveness and cost-effectiveness of vertebroplasty: a review of policy makers' responses. Academic Radiology 2006;13(5):550-5.
8. Heran MK, Legiehn GM, Munk PL. Current concepts and techniques in percutaneous vertebroplasty. Orthopedic Clinics of North America 2006;37(3):409-34.

Disclaimer Information:

Coverage Issues Guidelines and Medical Technology Assessment Recommendations are developed to determine coverage for AvMed' s benefits and are published to provide a better understanding of the basis upon which coverage decisions are made. AvMed makes coverage decisions using these guidelines, along with the Member's benefit document. The use of this guideline is neither a guarantee of payment nor a final prediction of how specific claim(s) will be adjudicated.

Coverage Issues Guidelines and Medical Technology Assessment Recommendations are developed for selected therapeutic or diagnostic services found to be safe, but proven effective in a limited, defined population of patients or clinical circumstances. They include concise clinical coverage criteria based on current literature review, consultation with practicing physicians in the AvMed service area who are medical experts in the particular field, FDA and other government agency policies, and standards adopted by national accreditation organizations.

Treating providers are solely responsible for the medical advice and treatment of Members. This guideline may be updated and therefore is subject to change.