MEDICAL POLICY

BONE GROWTH STIMULATOR

Established: 8/16/13
Reviewed: -
By: Roger Hinkson, M.D., MPH
Consulting Medical Director

POLICY

Criteria for the use of Ultrasound Bone Growth Stimulators:

Fresh Fractures: Most fresh fractures heal without complications with the use of standard fracture care, i.e., closed reduction and cast immobilization. However, low intensity ultrasound bone growth stimulators may be considered medically necessary for the treatment of fresh (less than 7 days old), closed or Grade I open fractures in skeletally mature adults when at least one of the following significant risk factors for delayed fracture healing or nonunion are present:

1) Diabetes
2) Osteoporosis
3) Chronic steroid therapy
4) Currently smoking
5) Fractures associated with extensive soft tissue or vascular damage.

Other factors that may indicate use of ultrasound bone healing depending on their severity may include: Obesity, nutritional or hormonal deficiency, age, low activity level, severe anemia, infection, or comminuted or other especially complicated fractures.

Nonunions: Low intensity ultrasound treatment may be considered medically necessary in patients with nonunion of skeletal bones, excluding the skull and vertebrae, when all of the following criteria are met:

1) At least three months have elapsed since the date of fracture and the initiation of conventional fracture treatments
2) Serial x-rays have confirmed that no progressive signs of healing have occurred
3) The fracture gap is 1 cm or less
4) Fracture is adequately immobilized.

Criteria for the Use of Non-Invasive Electrical Bone Growth Stimulators:

Nonunions: Low intensity ultrasound treatment may be considered medically necessary in patients with nonunion of bones, excluding the skull and vertebrae, when all of the following criteria are met:

1) At least three months have elapsed since the date of fracture and the initiation of conventional fracture treatments
2) Serial x-rays have confirmed that no progressive signs of healing have occurred
3) The fracture gap is 1 cm or less
4) Fracture is adequately immobilized.

Criteria for Use for Invasive or Non-Invasive Electrical Bone Growth Stimulators:

Risk of Lumbosacral Fusion Failure: Either invasive or noninvasive methods of electrical bone growth stimulation may be considered medically necessary as an adjunct to spinal lumbosacral fusion surgery for patients with any of the following risk factors for failed fusion (Use with cervical/thoracic fusion is not supported):

1) One or more previous failed spinal fusion(s) with at least 6 months having elapsed since last fusion.
2) Grade III or worse spondylolisthesis
3) Fusion to be performed at more than one level
4) Current alcoholism or smoking habit (Other tobacco use such as chewing tobacco is not considered a risk factor)
5) Diabetes or renal disease
6) Significant osteoporosis which has been demonstrated on radiographs
7) Chronic steroid use

REFERENCES

Anthem Blue Cross Medical Policy: Electrical Bone Growth Stimulation. Policy #DME.0004. 8/16/13.