

In Errata

Corrections have been made to the following abstract:

Cost Utility Analysis of Lumbar Interlaminar Epidural Injections in the Treatment of Lumbar Disc Herniation, Central Spinal Stenosis, and Axial or Discogenic Low Back Pain

Health Policy

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Background: Cost utility or cost effective analysis continues to take center stage in the United States for defining and measuring the value of treatments in interventional pain management. Appropriate cost utility analysis has been performed for caudal epidural injections, percutaneous adhesiolysis, and spinal cord stimulation. However, the literature pertaining to lumbar interlaminar epidural injections is lacking, specifically in reference to cost utility analysis derived from randomized controlled trials (RCTs) with a pragmatic approach in a practical setting.

Objectives: To assess the cost utility of lumbar interlaminar epidural injections in managing chronic low back and/or lower extremity pain secondary to lumbar disc herniation, spinal stenosis, and axial or discogenic low back pain.

Study Design: Analysis based on 3 previously published randomized trials of effectiveness of lumbar interlaminar epidural injections assessing their role in disc herniation, spinal stenosis, and axial or discogenic pain.

Setting: A contemporary, private, specialty referral interventional pain management center in the United States.

Methods: Cost utility of lumbar interlaminar epidural injections with or without steroids in managing lumbar disc herniation, central spinal stenosis, and discogenic or axial low back pain was conducted with data derived from 3 RCTs that included a 2-year follow-up, with inclusion of 360 patients. The primary outcome was significant improvement defined as at least a 50% in pain reduction and disability status. Direct payment data from 2016 was utilized for assessment of procedural costs. Overall costs, including drug costs, were determined by multiplication of direct procedural payment data by a factor of 1.67 to accommodate for indirect payments respectively for disc herniation, spinal stenosis, discogenic pain.

Results: The results of 3 RCTs showed direct cost utility for one year of quality-adjusted life year (QALY) of \$2,050.87 for disc herniation, \$2,112.25 for axial or discogenic pain without disc herniation, and \$1,773.28 for spinal stenosis, with an average cost per one year QALY of \$1,976.58, with total estimated costs of \$3,425, \$3,527, \$2,961, and \$3,301 respectively.

Limitations: The limitation of this cost utility analysis includes that it is a single center evaluation, even though 360 patients were included in this analysis. Further, only the costs of interventional procedures and physician visits were assessed based on the data, with extrapolation of indirect costs presenting the overall total costs. The benefits of returning to work were not assessed.

Conclusion: This cost utility analysis of lumbar interlaminar epidural injections in patients nonresponsive to conservative management in the treatment of disc herniation, central spinal stenosis, and axial or discogenic low back pain in the lumbar spine shows the clinical effectiveness and cost utility of these injections of \$1,976.58 for direct costs with a total cost of \$3,301 per QALY.

Key words: Lumbar interlaminar epidural injections, chronic low back pain, lumbar disc herniation, lumbar discogenic pain, cost utility analysis, cost effectiveness analysis, quality-adjusted life years

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