HEALTH EVIDENCE REVIEW COMMISSION (HERC)

COVERAGE GUIDANCE: LUMBAR DISCOGRAPHY

DATE: 08/09/2012

HERC COVERAGE GUIDANCE

Lumbar discography should not be a covered service for patients with low back pain and uncomplicated lumbar degenerative disc disease.

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RATIONALE FOR GUIDANCE DEVELOPMENT

The HERC selects topics for guideline development or technology assessment based on the following principles:

- Represents a significant burden of disease
- Represents important uncertainty with regard to efficacy or harms
- Represents important variation or controversy in clinical care
- Represents high costs, significant economic impact
- Topic is of high public interest

Coverage guidance development follows to translate the evidence review to a policy decision. In addition to an evidence-based guideline developed by the Evidence-based Guideline Subcommittee and a health technology assessment developed by the Heath Technology Assessment Subcommittee, coverage guidance may utilize an existing evidence report produced in the last 5 years by the Agency for Healthcare Research and Quality, the Medicaid Evidence-based Decisions Project or the Washington Health Technology Assessment Program.

EVIDENCE SOURCE

Washington State Health Care Authority Health Technology Assessment Program. (2007). *Spinal fusion and discography for chronic low back pain and uncomplicated lumbar degenerative disc disease.* Olympia, WA: Health Technology Assessment Program. Retrieved from http://www.hta.hca.wa.gov/discography.html

The summary of evidence in this document is derived directly from this evidence source, and portions are extracted verbatim.

SUMMARY OF EVIDENCE

Clinical Background

Low back pain was the most common cause of disability in persons younger than 45 in the U.S. in 2005. It causes the most loss of productivity of any medical condition. In the U.S., an estimated range of 8-56% of the population experiences lower back pain every year, and the lifetime incidence rate is reportedly between 65% and 80%. 2.4 million people are disabled because of low back pain, 1.2 million of them chronically. Most patients improve within weeks; only 5-10% of people with low back pain develop chronic back pain.

The degeneration of intervertebral discs can be associated with back pain and sciatica. Discs at any level can degenerate and cause pain, but this most often occurs at cervical and lumbar levels. Typical imaging findings suggestive of discogenic pain include disc space collapse, endplate sclerosis, vacuum disc phenomenon on plain films and dehydration, high intensity zones and endplate edema on MRI.

Chronic low back pain with degenerative disc disease is typically managed conservatively for at least six months before surgery is considered. When conservative treatments fail, discectomy and/or spinal fusion may be considered. The role of discography in selection of patients as surgical candidates is controversial. Discography is a diagnostic procedure in which contrast material is injected into the nucleus pulposus of a lumbar disc. The general intent is to determine whether the disc itself is the source of pain. This diagnostic test has been used to justify the need for surgical intervention involving discectomy and lumbar fusion.

Discography yields two types of results: pain provocation (whether the patient's typical pain was reproduced by the injection), and morphology (whether the dye images an abnormal pattern in the disc, often based on CT scan). Controversy exists about the relative importance of these two test results. One major concern about discography is the rate of false positive results (reportedly 25% using the most stringent criteria).

Evidence Review

The evidence is insufficient to permit conclusions about the reliability of discography for patients with chronic low back pain and uncomplicated lumbar degenerative disc disease[1]. Two studies reported on test-retest reliability and inter-rater reliability, specifically, whether a given discogram is judged to have the same morphology grade

[1] For a study to be included in this evidence report, at least 80% of the patients could not have any of the following medical conditions: radiculopathy, functional neurologic deficits (motor weakness or EMG findings of radiculopathy), spondylolisthesis (>Grade 1), isthmic spondylolysis, primary neurogenic claudication associated with stenosis, fracture, tumor, infection, inflammatory disease, degenerative disease associated with significant deformity.

Superseded

by the same reader at different times (i.e., test-retest) or by different readers (i.e., inter-rater). Notably, neither study performed two discography exams on the same disc to determine whether the results were consistent between discography injections. Also, neither study investigated the reliability of patients' reports of pain provocation or similarity to their typical pain.

Because of low quality and heterogeneous results from three studies (n = 330 patients), the evidence was insufficient to permit conclusions about the use of discography to predict fusion outcomes in patients with chronic low back pain and uncomplicated lumbar degenerative disc disease. All three studies used a different definition of a positive discography test, assessed different surgical outcomes and had qualitatively different results (one found no difference between groups, one did, and the third had insufficient numbers to detect a significant difference).

The evidence was insufficient to permit conclusions about how fusion outcomes compare in patients who do or do not receive discography (no evidence of acceptable quality was identified).

[Evidence Source]

Overall summary

The evidence is insufficient to permit conclusions about the reliability of discography or its ability to predict outcomes in patients with chronic low back pain and uncomplicated lumbar degenerative disc disease who are candidates for spinal fusion.

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PROCEDURE

Discography

DIAGNOSES

Degenerative disc disease

APPLICABLE CODES

CODES	DESCRIPTION
ICD-9 Diagnosis Codes	
722.5	Degeneration of thoracic or lumbar intervertebral disc
722.6	Degeneration of intervertebral disc, site unspecified
722.70	Intervertebral disc disorder with myelopathy, unspecified region
722.73	Intervertebral disc disorder with myelopathy, lumbar region
722.90	Other and unspecified disc disorder, unspecified region
722.93	Other and unspecified disc disorder, lumbar region
ICD-9 Volume 3 (Procedure Codes)	
87.21	Contrast myelogram
CPT Codes	
62290	Injection procedure for discography, each level; lumbar

72295	Discography, lumbar, radiological supervision and interpretation
HCPCS Codes	
None	

Note: Inclusion on this list does not guarantee coverage

Coverage guidance is prepared by the Health Evidence Review Commission (HERC), HERC staff, and subcommittee members. The evidence summary is prepared by the Center for Evidence-based Policy at Oregon Health & Science University (the Center). This document is intended to guide public and private purchasers in Oregon in making informed decisions about health care services.

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