Corporate Medical Policy

Automated Percutaneous and Endoscopic Discectomy

File Name:	percutaneous_discectomy
Origination:	9/1991
Last CAP Review:	5/2019
Next CAP Review:	5/2020
Last Review:	5/2019

Description of Procedure or Service

Surgical management of herniated intervertebral discs most commonly involves discectomy or microdiscectomy, performed manually through an open incision. Automated percutaneous discectomy involves placement of a probe within the intervertebral disc under image guidance with aspiration of disc material using a suction cutting device. Removal of disc herniations under endoscopic visualization is also being investigated. Endoscopic discectomy involves the percutaneous placement of a working channel under image guidance, followed by visualization of the working space and instruments through an endoscope, and aspiration of disc material.

Back pain or radiculopathy related to herniated discs is an extremely common condition and a frequent cause of chronic disability. Although many cases of acute low back pain and radiculopathy will resolve with conservative care, a surgical decompression is often considered when the pain is unimproved after several months and is clearly neuropathic in origin, resulting from irritation of the nerve roots. Open surgical treatment typically consists of discectomy, in which the extruding disc material is excised. When performed with an operating microscope the procedure is known as microdiscectomy.

Minimally invasive options have also been researched, in which some portion of the disc is removed or ablated, although these techniques are not precisely targeted at the offending extruding disc material. Ablative techniques include laser discectomy and radiofrequency (RF) decompression. In addition, intradiscal electrothermal annuloplasty is another minimally invasive approach to low back pain. In this technique, radiofrequency energy is used to treat the surrounding disc annulus.

This policy addresses automated percutaneous and endoscopic discectomy, in which the disc decompression is accomplished by the physical removal of disc material rather than its ablation. Traditionally, discectomy was performed manually through an open incision, using cutting forceps to remove nuclear material from within the disc annulus. This technique was modified by automated devices that involve placement of a probe within the intervertebral disc and aspiration of disc material using a suction cutting device. Endoscopic techniques may be intradiscal or may involve the extraction of non-contained and sequestered disc fragments from inside the spinal canal using an interlaminar or transforaminal approach. Following insertion of the endoscope, the decompression is performed under visual control.

Regulatory Status:

The DeKompressor® Percutaneous Discectomy Probe (Stryker), Herniatome Percutaneous Device (Gallini Medical Devices), and the Nucleotome® (Clarus Medical) are examples of percutaneous discectomy devices that received clearance from the U.S. Food and Drug Administration (FDA) through the 510(k) process. The FDA indication for these products is for

"aspiration of disc material during percutaneous discectomies in the lumbar, thoracic and cervical regions of the spine."

A variety of endoscopes and associated surgical instruments have received marketing clearance through the FDA's 510(k) process.

Related Policies:
Percutaneous Intradiscal Electrothermal Annuloplasty, Radiofrequency Annuloplasty, and Biacuplasty
Decompression of the Intervertebral Disc Using Laser Energy (Laser Discectomy) or Radiofrequency Coblation (Nucleoplasty)

******Note: This Medical Policy is complex and technical. For questions concerning the technical language and/or specific clinical indications for its use, please consult your physician.***

Policy

Automated Percutaneous Discectomy is considered investigational for all applications. BCBSNC does not provide coverage for investigational services or procedures.

Percutaneous Endoscopic Discectomy is considered investigational for all applications. BCBSNC does not provide coverage for investigational services or procedures.

Benefits Application

This medical policy relates only to the services or supplies described herein. Please refer to the Member's Benefit Booklet for availability of benefits. Member's benefits may vary according to benefit design; therefore member benefit language should be reviewed before applying the terms of this medical policy.

When Automated Percutaneous and Endoscopic Discectomy are covered

Not applicable

When Automated Percutaneous and Endoscopic Discectomy are not covered

Automated percutaneous discectomy is considered investigational as a technique of intervertebral disc decompression in patients with back pain and/or radiculopathy related to disc herniation in the lumbar, thoracic, or cervical spine.

Percutaneous endoscopic discectomy is considered investigational as a technique of intervertebral disc decompression in patients with back pain and/or radiculopathy related to disc herniation in the lumbar, thoracic, or cervical spine.

Policy Guidelines

For individuals who have herniated intervertebral disc(s) who receive automated percutaneous discectomy, the evidence includes randomized controlled trials (RCTs) and systematic reviews of RCTs. Relevant outcomes are symptoms, functional outcomes, quality of life, and treatment-related morbidity. The published evidence from small RCTs is insufficient to evaluate the impact of automated percutaneous discectomy on net health outcomes. Well-designed and executed RCTs are needed to determine the benefits and risks of this procedure. The evidence is insufficient to determine the effects of the technology on health outcomes.

For individuals who have herniated intervertebral disc(s) who receive percutaneous endoscopic

discectomy, the evidence includes a number of RCTs and systematic reviews of RCTs. Relevant outcomes are symptoms, functional outcomes, quality of life, and treatment-related morbidity. Many of the RCTs were conducted at a single center in Europe. Some trials have reported outcomes at least as good as traditional approaches with an open incision, while one RCT from a different center in Europe reported a trend toward increased complications and reherniations using an endoscopic approach. There are few reports from the United States. Results from a number of moderately large ongoing RCTs are anticipated in the next 2 to 3 years. The evidence is insufficient to determine the effects of the technology on health outcomes.

Billing/Coding/Physician Documentation Information

This policy may apply to the following codes. Inclusion of a code in this section does not guarantee that it will be reimbursed. For further information on reimbursement guidelines, please see Administrative Policies on the Blue Cross Blue Shield of North Carolina web site at www.bcbsnc.com. They are listed in the Category Search on the Medical Policy search page.

Applicable service codes: *62287, 62380, 0274T, 0275T*

BCBSNC may request medical records for determination of medical necessity. When medical records are requested, letters of support and/or explanation are often useful, but are not sufficient documentation unless all specific information needed to make a medical necessity determination is included.

Scientific Background and Reference Sources

Herniated Lumbar Disc, Percutaneous

Consultant review - 7/8/2001

Specialty Matched Consultant Advisory Panel - 8/2001

Specialty Matched Consultant Advisory Panel - 8/2002

BCBSA Medical Policy Reference Manual, 7.01.18, 4/15/02

Specialty Matched Consultant Advisory Panel - 7/2003

BCBSA Medical Policy Reference Manual [Electronic Version]. 7.01.18, 4/1/2005

Specialty Matched Consultant Advisory Panel - 6/2005

BCBSA Medical Policy Reference Manual [Electronic Version]. 7.01.18, 3/7/2006

Specialty Matched Consultant Advisory Panel - 5/2007

Freeman BJ and Mehdian R. Intradiscal electrothermal therapy, percutaneous discectomy, and nucleoplasty: what is the current evidence? Curr Pain Headache Rep 2008; 12(1):14-21.

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BCBSA Medical Policy Reference Manual [Electronic Version]. 7.01.18, 11/13/08

Specialty Matched Consultant Advisory Panel - 5/2009

BCBSA Medical Policy Reference Manual [Electronic Version]. 7.01.18, 2/10/11

Specialty Matched Consultant Advisory Panel – 5/2011

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Medical Director 8/2011

BCBSA Medical Policy Reference Manual [Electronic Version]. 7.01.18, 11/10/11

Automated Percutaneous and Endoscopic Discectomy

BCBSA Medical Policy Reference Manual [Electronic Version]. 7.01.18, 12/8/2011

Medical Director – 3/2012

BCBSA Medical Policy Reference Manual [Electronic Version]. 7.01.18, 4/11/2013

Specialty Matched Consultant Advisory Panel – 5/2013

BCBSA Medical Policy Reference Manual [Electronic Version]. 7.01.18, 4/10/2014

Specialty Matched Consultant Advisory Panel – 5/2014

BCBSA Medical Policy Reference Manual [Electronic Version]. 7.01.18, 4/23/2015

Specialty Matched Consultant Advisory Panel – 5/2015

BCBSA Medical Policy Reference Manual [Electronic Version]. 7.01.18, 4/14/2016

Specialty Matched Consultant Advisory Panel – 5/2016

BCBSA Medical Policy Reference Manual [Electronic Version]. 7.01.18, 4/13/2017

Specialty Matched Consultant Advisory Panel – 5/2017

Specialty Matched Consultant Advisory Panel – 5/2018

BCBSA Medical Policy Reference Manual [Electronic Version]. 7.01.18, 4/12/2018

BCBSA Medical Policy Reference Manual [Electronic Version]. 7.01.18, 12/13/2018

Specialty Matched Consultant Advisory Panel – 5/2019

BCBSA Medical Policy Reference Manual [Electronic Version]. 7.01.18, 6/13/2019

Policy Implementation/Update Information

Percutaneous Lumbar Discectomy

7/6/09 "Herniated Lumbar Disc, Percutaneous" policy separated into individual policies by topic. Percutaneous Lumbar Discectomy is considered investigational. Specialty

Matched Consultant review 5/28/09. No change to policy statement. "Description" revised. Rationale updated in "Policy Guidelines" section. References added. (btw)

6/22/10 Policy Number(s) removed (amw)

6/21/11 Specialty Matched Consultant Advisory Panel review 5/25/2011. "Description" revised. No changes to policy intent. References added. (btw)

Percutaneous Discectomy

8/16/11 "Lumbar" removed from title and throughout policy as appropriate to include percutaneous discectomy for all spinal levels. Added CPT 0274T and 0275T to "Billing/Coding" section. Medical Director review 8/2/2010. (btw)

1/24/12 Added HCPCS code S2348 to Billing/Coding section. Reference added. (btw)

Automated Percutaneous and Endoscopic Discectomy

3/30/12 Title changed from Percutaneous Discectomy to Automated Percutaneous and Endoscopic Discectomy. Description section revised and information related to endoscopic discectomy added. "Endoscopic discectomy is considered investigational as a technique of intervertebral disc decompression in patients with back pain related to disc herniation in the lumbar, thoracic, or cervical spine." Removed the following codes from the Billing/Coding section; 0274T, 0275T, and S2348 as they are not specific to this policy. Medical Director review 3/30/2012. Notification given. Policy effective 7/1/2012. (btw)

7/1/13 Specialty Matched Consultant Advisory Panel review 5/15/2013. Updated Description section. Added 0274T and 0275T back to Billing/Coding section since percutaneous discectomy is a component of these codes. Added "and/or radiculopathy" to both When Not Covered statements for clarification. No change to policy intent. Reference added. (btw)

6/10/14 Specialty Matched Consultant Advisory Panel review 5/27/2014. Reference added. No change to policy. (btw)

7/1/15 Reference added. Specialty Matched Consultant Advisory Panel review 5/27/2015. (sk)

7/1/16 Reference added. Policy Guidelines updated. Specialty Matched Consultant Advisory Panel review 5/25/2016. (sk)

12/30/16 Code 62380 added to Billing/Coding section. (sk)

6/30/17 Reference added. Policy Guidelines updated. Specialty Matched Consultant Advisory Panel review 5/31/2017. (sk)

7/13/18 Specialty Matched Consultant Advisory Panel review 5/23/2018. (sk)

9/28/18 Reference added. (sk)

6/11/19 Reference added. Specialty Matched Consultant Advisory Panel review 5/15/2019. (sk)

8/27/19 Reference added. (sk)