



**ANTERIOR CINGULOTOMY FOR THE TREATMENT  
OF OBSESSIVE COMPULSIVE DISORDER  
HS-068**



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**Anterior Cingulotomy for the  
Treatment of Obsessive  
Compulsive Disorder**

**Policy Number: HS-068**

**Original Effective Date: 12/10/2008**

**Revised Date(s): 3/10/2010; 3/10/2011**

**DISCLAIMER**

The Clinical Coverage Guideline is intended to supplement certain standard WellCare benefit plans. The terms of a member's particular Benefit Plan, Evidence of Coverage, Certificate of Coverage, etc., may differ significantly from this Coverage Position. For example, a member's benefit plan may contain specific exclusions related to the topic addressed in this Clinical Coverage Guideline. When a conflict exists between the two documents, the Member's Benefit Plan always supersedes the information contained in the Clinical Coverage Guideline. Additionally, Clinical Coverage Guidelines relate exclusively to the administration of health benefit plans and are NOT recommendations for treatment, nor should they be used as treatment guidelines. The application of the Clinical Coverage Guideline is subject to the benefit determinations set forth by the Centers for Medicare and Medicaid Services (CMS) National and Local Coverage Determinations and state-specific Medicaid mandates, if any.

**APPLICATION STATEMENT**

The application of the Clinical Coverage Guideline is subject to the benefit determinations set forth by the Centers for Medicare and Medicaid Services (CMS) National and Local Coverage Determinations and state-specific Medicaid mandates, if any.

## BACKGROUND

### *Centers for Medicare and Medicaid Determination*

Cingulotomy is a psychosurgical procedure designed to interrupt the interconnecting neuronal pathways of the brain involved in the regulation of the emotions and certain autonomic functions. The intent of psychosurgery is to modify or alter disturbances of behavior, thought content, or mood that are not responsive to other conventional modes of therapy, or for which no organic pathological cause can be demonstrated by established methods. The operation usually involves bilateral lesions that are placed in the anterior cingulum of the brain. Electrocautery probes are stereotactically inserted through lateral burr holes in the skull. A radio frequency pulsating current is used to ablate the tissue that connects the limbic system to the frontal lobe. Two or three repeat procedures may be performed in the same patient when a satisfactory result has not been achieved with the first cingulotomy. Stereotactic cingulotomy is not covered under Medicare because the procedure is considered to be investigational (from CMS, 2000).

### *American Psychiatric Association, 2007*

The American Psychiatric Association places a Level III recommendation on ablative neurosurgery.

**I]** Recommended with substantial clinical confidence.

**II]** Recommended with moderate clinical confidence.

**III]** May be recommended on the basis of individual circumstances.

After first- and second-line treatments and well-supported augmentation strategies have been exhausted, less well-supported treatment strategies may be considered **III]**. These include augmenting SSRIs with clomipramine, buspirone, pindolol, riluzole, or once-weekly oral morphine sulfate **III]**. However, morphine sulfate should be avoided in patients with contraindications to opiate administration, and appropriate precautions and documentation should occur. If clomipramine is added, appropriate precautions should be utilized with regard to preventing potential cardiac and central nervous system side effects **I]**. Less well-supported monotherapies to consider include D-amphetamine **III]**, tramadol **III]**, monoamine oxidase inhibitors (MAOIs) **III]**, ondansetron **III]**, transcranial magnetic stimulation (TMS) **III]**, and deep brain stimulation (DBS) **III]**. Intensive residential treatment or partial hospitalization may be helpful for patients with severe treatment-resistant OCD **II]**. Ablative neurosurgery for severe and very treatment-refractory OCD is rarely indicated and, along with deep brain stimulation, should be performed only at sites with expertise in both OCD and these treatment approaches **III]** (from APA, 2007).

### *Research Review*

1) Long-term outcome associated with cingulotomy for obsessive-compulsive disorder (OCD) was prospectively assessed. Findings are reported for 18 patients previously described in 1995 and for 26 new patients. An open preoperative and follow-up assessment was conducted at multiple time points for 44 patients undergoing one or more cingulotomies for treatment-refractory OCD. The patients were assessed by using the Structured Clinical Interview for DSM-III-R preoperatively and with the Yale-Brown Obsessive Compulsive Scale, the Beck Depression Inventory, and the Sickness Impact Profile both preoperatively and at all follow-up assessments. The patients completed clinical global improvement scales at all follow-up assessments. At mean follow-up of 32 months after one or more cingulotomies, 14 patients (32%) met criteria for treatment response and six others (14%) were partial responders. Thus, 20 patients (45%) were at least partial responders at long-term follow-up after one or more cingulotomies. Few adverse effects were reported. Thirty-two percent to 45% of patients previously unresponsive to

medication and behavioral treatments for OCD were at least partly improved after cingulotomy. Cingulotomy remains a viable treatment option for patients with severe treatment-refractory OCD (from Dougherty et al, 2002).

2) Seventeen patients suffering from refractory OCD underwent stereotactic bilateral anterior cingulotomies and were followed for 24 months. The Yale-Brown Obsessive-Compulsive Scale (Y-BOCS), the Clinical Global Impression and other neuropsychological tests were used to assess the efficacy and cognitive changes of cingulotomy. The tests were taken before and 12 and 24 months after surgery. **RESULTS:** The mean improvement rate of the Y-BOCS score achieved from the baseline was 48%. Eight patients out of 17 met the responder criteria. During the 24-month follow-up, there were no significant adverse effects observed after surgery. **CONCLUSIONS:** Bilateral anterior cingulotomy was effective for the treatment of refractory OCD, and no other significant adverse cognitive effects on long-term follow-up were found (from Jung, 2006).

3) Ochsner et al (2001) state the following regarding possible deficits in vision, cognition and attention following anterior cingulotomy: "A series of eight tests of visual cognitive abilities was used to examine pre- to post-operative performance changes in a patient receiving bilateral anterior cingulotomy. Compared with a set of eight matched control participants, post-operatively, the patient exhibited deficits in (a) the ability to sequence novel cognitive operations required to generate multipart images or rotate perceptual stimuli; (b) the ability to search for, select, and compare images of objects when the instructions did not specify precisely which objects should be visualized; and, (c) the ability to select a controlled and unpracticed response over an automatic one. Other imagery and cognitive tasks were not affected. Results are consistent with the hypothesis that anterior cingulate cortex is a component of an executive control system. One of the anterior cingulate's roles may be to monitor on-line processing and signal the motivational significance of current actions or cognitions.

Due to the paucity of research findings concerning anterior cingulotomy for the treatment of obsessive-compulsive disorder, the procedure is considered experimental and investigational.

## **POSITION STATEMENT**

Anterior cingulotomy for the treatment of refractory obsessive-compulsive disorder (OCD) **is considered experimental and investigational and NOT a covered benefit.**

## **CODING**

### **Non-Covered CPT® Codes**

**61490** Craniotomy for lobotomy, including cingulotomy

**61720** Creation of lesion by stereotactic method, including burr hole(s) and localizing and recording techniques, single or multiple stages; globus pallidus or thalamus

**61735** Creation of lesion by stereotactic method, including burr hole(s) and localizing and recording techniques, single or multiple stages; subcortical structure(s) other than globus pallidus or thalamus

### **Non-Covered ICD-9-CM Procedure Codes**

**01.32** Cingulotomy; percutaneous (radiofrequency)

**HCPCS Level II © Codes** - No applicable codes

**Non-Covered ICD-9-CM Diagnosis Code**

**300.3** Obsessive-Compulsive Disorders (OCD)

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**REFERENCES**

**Peer Reviewed**

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**Government Agencies, Professional and Medical Organizations**

1. American Psychiatric Association. Practice guideline for the treatment of patients with obsessive-compulsive disorder. Arlington, VA: American Psychiatric Association (APA); 2007. 96 p.
2. Centers for Medicare and Medicaid Services, Coverage Issues Manual. Transmittal 124, 35-84: Stereotactic Cingulotomy as a Means of Psychosurgery—Not Covered. April, 2000.

**HISTORY AND REVISIONS**

<b>Date</b>	<b>Action</b>
12/1/2011	<ul style="list-style-type: none"><li>• New template design approved by MPC.</li></ul>
3/10/2011	<ul style="list-style-type: none"><li>• Approved by MPC.</li></ul>