SERVICE: Bronchial Thermoplasty

POLICY: SWHP considers bronchial thermoplasty for the treatment of asthma and other indications (e.g., chronic obstructive pulmonary disease) experimental and investigational because its effectiveness has not been established. Therefore, this is NOT a covered procedure.

OVERVIEW:

Asthma is one of the most common chronic diseases in the United States, and its prevalence has been increasing since 1980. In 2000, asthma was responsible for 4,487 deaths, about 0.5 million hospitalizations, 1.8 million visits to the emergency room, and 10.4 million visits to the physician office among individuals of all ages. Approximately 7% of the U.S population has asthma. According to the National Heart, Lung and Blood Institute's (2002) global strategy for asthma management and prevention, the preferred therapy for patients with moderate persistent asthma is regular treatment with a combination of inhaled corticosteroids and a long-acting inhaled beta 2-agonist twice-daily. For patients with severe persistent asthma, the primary therapy includes inhaled corticosteroid at higher doses plus a long-acting inhaled beta 2-agonist twice-daily.

Bronchial thermoplasty is a bronchoscopic procedure that employs radiofrequency ablation to reduce the mass of airway smooth muscle (ASM), thus attenuating bronchoconstriction. It is being studied as a minimally invasive method to improve asthma control. Bronchial thermoplasty is performed on an out-patient basis with conscious sedation (i.e., no general anesthesia is needed), and it usually takes approximately one hour to complete. There are two assumptions that underlie the development of this procedure: (i) ASM is a vestigial tissue; and (ii) treatment directed at ASM alone will provide sustained symptomatic and physiological improvement in patients with asthma. Typically three separate treatments are done over a number of weeks.

Early results have been promising in regards to a reduction in asthma attacks of approximately 50%. However, results have been mixed in sham studies. There are a few studies suggesting safety and efficacy at least until 2 years. However, these studies have largely been industry sponsored and there are no large RCTs.
The procedure does carry considerable risk. Perforation of a bronchus can lead to a pneumothorax, bronchopleural fistula, or severe mediastinitis infection. These could be morbid or fatal complications.

MANDATES: None

CODES:

Important note:
CODER: Due to the wide range of applicable diagnosis codes and potential changes to codes, an inclusive list may not be presented, but the following codes may apply. Inclusion of a code in this section does not guarantee that it will be reimbursed, and patient must meet the criteria set forth in the policy language.

<table>
<thead>
<tr>
<th>CPT Codes:</th>
<th>31660 - Bronchoscopy with bronchial thermoplasty, 1 lobe</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>31661 - Bronchoscopy with bronchial thermoplasty, 2+ lobes</td>
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<table>
<thead>
<tr>
<th>ICD10 Not covered</th>
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<tbody>
<tr>
<td>J44.1 Chronic obstructive pulmonary disease with (acute) exacerbation</td>
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<tr>
<td>J44.9 Chronic obstructive pulmonary disease, unspecified</td>
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<tr>
<td>J45.50 Severe persistent asthma, uncomplicated</td>
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<tr>
<td>J45.51 Severe persistent asthma with (acute) exacerbation</td>
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<tr>
<td>J45.52 Severe persistent asthma with status asthmaticus</td>
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<tr>
<td>J45.9 Other and unspecified asthma</td>
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<tr>
<td>J45.90 Unspecified asthma</td>
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CMS: No NCD or LCD for this procedure.

POLICY HISTORY:

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<tr>
<th>Status</th>
<th>Date</th>
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<td>02/14/2013</td>
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<tr>
<td>Reviewed</td>
<td>02/14/2014</td>
<td>Reviewed. ICD10 codes added.</td>
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<td>Reviewed</td>
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</tr>
<tr>
<td>Reviewed</td>
<td>01/23/2020</td>
<td>Literature reviewed. No changes</td>
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REFERENCES:
The following scientific references were utilized in the formulation of this medical policy. SWHP will continue to review clinical evidence related to this policy and may modify it at a later date based upon the evolution of the published clinical evidence. Should additional scientific studies become available and they are not included in the list, please forward the reference(s) to SWHP so the information can be reviewed by the Medical Coverage Policy Committee (MCPC) and the Quality Improvement Committee (QIC) to determine if a modification of the policy is in order.


MEDICAL COVERAGE POLICY
SERVICE: Bronchial Thermoplasty
Policy Number: 207
Effective Date: 03/01/2020
Last Review: 01/23/2020
Next Review Date: 01/23/2021

24. Institute for Clinical Systems Improvement (ICSI). Diagnosis and management of asthma. Bloomington, MN: Institute for Clinical Systems Improvement (ICSI); June 2010.


