Medical Policy
Bronchial Thermoplasty

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Policy Number: 284
BCBSA Reference Number: 7.01.127
NCD/LCD: N/A

Related Policies
None

Policy¹
Commercial Members: Managed Care (HMO and POS), PPO, and Indemnity Medicare HMO Blue℠ and Medicare PPO Blue℠ Members

Bronchial thermoplasty, performed by a pulmonologist who has completed a bronchial thermoplasty training curriculum, may be considered medically necessary for patients ≥18 years when the following criteria are met:

• Patient has been diagnosed with severe persistent asthma by having any of the following criteria in the absence of controller medications:
  o Daily symptoms
  o Night time awakenings, every night
  o Use of rescue medicine multiple times per day
  o Normal activities are extremely limited
  o Impaired lung function (less than or equal to 60% predicted)
  o Frequent exacerbations, AND

• Co-morbid conditions contributing to asthma exacerbations have either been ruled out or fully controlled (e.g. allergy symptoms, GERD), AND

• Patient is taking chronic oral corticosteroids, OR

• Poor asthma control despite being on high-dose ICS and LABA for a minimum of 3 months with two or more asthma exacerbations per year. Asthma exacerbations are defined as follows:
Bronchial thermoplasty is contraindicated for patients with the following conditions:
- Presence of a pacemaker, internal defibrillator, or other implantable electronic device
- Known sensitivity to medications required to perform bronchoscopy, including lidocaine, atropine and benzodiazepines
- Patients previously treated with bronchial thermoplasty
- Active respiratory infection
- Asthma exacerbation or changing dose of systemic corticosteroids for asthma (up or down) in the past 14 days
- Known coagulopathy.

Bronchial thermoplasty is considered investigational when the above criteria are not met.

**Prior Authorization Information**
Pre-service approval is required for all inpatient services for all products. See below for situations where prior authorization may be required or may not be required for outpatient services.
Yes indicates that prior authorization is required.
No indicates that prior authorization is not required.
N/A indicates that this service is primarily performed in an inpatient setting.

<table>
<thead>
<tr>
<th>Outpatient</th>
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<tbody>
<tr>
<td>Commercial Managed Care (HMO and POS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Commercial PPO and Indemnity</td>
<td>No</td>
</tr>
<tr>
<td>Medicare HMO BlueSM</td>
<td>Yes</td>
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<tr>
<td>Medicare PPO BlueSM</td>
<td>No</td>
</tr>
</tbody>
</table>

**CPT Codes / HCPCS Codes / ICD Codes**
Inclusion or exclusion of a code does not constitute or imply member coverage or provider reimbursement. Please refer to the member’s contract benefits in effect at the time of service to determine coverage or non-coverage as it applies to an individual member.

Providers should report all services using the most up-to-date industry-standard procedure, revenue, and diagnosis codes, including modifiers where applicable.

The following codes are included below for informational purposes only; this is not an all-inclusive list.

The following CPT codes are considered medically necessary when the policy guidelines above are met for Commercial Members: Managed Care (HMO and POS), PPO, Indemnity, Medicare HMO Blue and Medicare PPO Blue:
**CPT Codes**

<table>
<thead>
<tr>
<th>CPT codes</th>
<th>Code Description</th>
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<tbody>
<tr>
<td>31660</td>
<td>Bronchoscopy, rigid or flexible, including fluoroscopic guidance, when performed; with bronchial thermoplasty, 1 lobe</td>
</tr>
<tr>
<td>31661</td>
<td>Bronchoscopy, rigid or flexible, including fluoroscopic guidance, when performed; with bronchial thermoplasty, 2 or more lobes</td>
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**ICD-10 Procedure Codes**

<table>
<thead>
<tr>
<th>ICD-10-PCS procedure codes</th>
<th>Code Description</th>
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<tbody>
<tr>
<td>OB538ZZ</td>
<td>Destruction of Right Main Bronchus, Via Natural or Artificial Opening</td>
</tr>
<tr>
<td>OB548ZZ</td>
<td>Destruction of Right Upper Lobe Bronchus, Via Natural or Artificial Opening Endoscopic</td>
</tr>
<tr>
<td>OB558ZZ</td>
<td>Destruction of Right Middle Lobe Bronchus, Via Natural or Artificial Opening Endoscopic</td>
</tr>
<tr>
<td>OB568ZZ</td>
<td>Destruction of Right Lower Lobe Bronchus, Via Natural or Artificial Opening</td>
</tr>
<tr>
<td>OB578ZZ</td>
<td>Destruction of Left Main Bronchus, Via Natural or Artificial Opening Endoscopic</td>
</tr>
<tr>
<td>OB588ZZ</td>
<td>Destruction of Left Upper Lobe Bronchus, Via Natural or Artificial Opening Endoscopic</td>
</tr>
<tr>
<td>OB598ZZ</td>
<td>Destruction of Lingula Bronchus, Via Natural or Artificial Opening Endoscopic</td>
</tr>
<tr>
<td>OB5B8ZZ</td>
<td>Destruction of Left Lower Lobe Bronchus, Via Natural or Artificial Opening Endoscopic</td>
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**Description**

Asthma demonstrates specific clinical features that include bronchial hyper-responsiveness, airway inflammation and reversible airflow obstruction that cause symptoms of episodic shortness of breath, wheezing, coughing, and chest tightness. Management of asthma consists of environmental control, patient education, management of co-morbidities, and regular follow-up for all affected individuals, as well as a stepped approach to medication treatment. Despite this multidimensional approach, morbidity remains high, and it is believed to be due to the substantial heterogeneity in the inflammatory features of asthmatic patients, yielding variable responses to evidence based treatment.

Bronchial thermoplasty is a procedure, which delivers radiofrequency energy to heat tissues in the distal airways with the ultimate outcome of reducing the amount of smooth muscle to decrease muscle-mediated bronchoconstriction. It is based on the premise that patients with treatment resistant asthma have an increased amount of smooth muscle in the airway resulting in an enhanced inflammatory response and subsequent airway constriction.

Bronchial thermoplasty procedures are performed on an outpatient basis. A standard flexible bronchoscope is placed into the most distal targeted airway. The process is repeated several times along the accessible length of the airway.

An example of bronchial thermoplasty is the Alair Bronchial Thermoplasty System from Asthmatx, Inc. All bronchial thermoplasty procedures are considered investigational regardless of the commercial name, the manufacturer or FDA approval status.
Summary
Three RCTs on bronchial thermoplasty have been published; only one of these, the AIR2 trial had sites in the United States. In the AIR2 trial, bronchial thermoplasty provided benefit in terms of quality of life and some, but not all, secondary outcomes. It is unclear, however, which patients are most likely to respond to treatment. Data from the AIR2 suggests that those with more severe asthma may experience the greatest improvement.

Long-term safety data up to 5 years are available from participants in the AIR trial and do not suggest a high rate of delayed complications following bronchial thermoplasty. However, long-term safety data are not yet available from the two other RCTs, and long-term data on clinical outcomes such as exacerbation rates and quality of life are not available. Other ongoing trials are evaluating predictors of response to treatment. Despite the low volume of published long term data on bronchial thermoplasty, patients with severe persistent asthma who are very poorly controlled despite being on maximum ICS and LABA therapy have few other treatment options. Bronchial thermoplasty may provide improved quality of life by decreasing exacerbation frequency, decreasing the need for systemic corticosteroids and improving asthma symptoms overall. Therefore bronchial thermoplasty is considered medically necessary.

Policy History
<table>
<thead>
<tr>
<th>Date</th>
<th>Action</th>
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<tr>
<td>7/2017</td>
<td>New references added from BCBSA National medical policy.</td>
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<td>12/2015</td>
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<td>8/2015</td>
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<tr>
<td>9/2014</td>
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<tr>
<td>7/2014</td>
<td>Clarified coding information.</td>
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Information Pertaining to All Blue Cross Blue Shield Medical Policies
Click on any of the following terms to access the relevant information:
Medical Policy Terms of Use
Managed Care Guidelines
Indemnity/PPO Guidelines
Clinical Exception Process
Medical Technology Assessment Guidelines

References
3. Blue Cross Blue Shield Association Technology Evaluation Center (TEC). Bronchial thermoplasty for treatment of inadequately controlled severe asthma. TEC Assessments. 2014; Volume 29: Tab 12. PMID 25962190
Endnotes

1 Based on expert opinion, MPG April 2016