DESCRIPTION:

Bronchial thermoplasty (BT) is a procedure that delivers thermal energy to the airways via a flexible bronchoscope to ablate and reduce the mass of airway smooth muscle. Bronchial thermoplasty is intended as a supplemental treatment for patients with severe persistent asthma (i.e., steps 5 and 6 in the stepwise approach to care).

Bronchial thermoplasty procedures are performed on an outpatient basis with moderate sedation, and last approximately one hour each. During the procedure, a standard flexible bronchoscope is placed through the patient’s mouth or nose into the most distal targeted airway and a catheter is inserted into the working channel of the bronchoscope. After placement, the electrode array in the top of the catheter is expanded and radiofrequency energy is delivered from a proprietary controller and used to heat tissue to 65 degrees Centigrade over a 5 mm area. The positioning of the catheter and application of thermal energy is repeated several times in contiguous areas along the accessible length of the airway. At the end of the treatment session, the catheter and bronchoscope are removed. A course of treatment consists of 3 separate procedures in different regions of the lung, scheduled approximately 3 weeks apart.

In April 2010, the Alair Bronchial Thermoplasty System (Asthmatx, Inc., Sunnyvale, CA) was approved by the FDA through the premarket approval (PMA) process for use in adults with severe and persistent asthma whose symptoms are not adequately controlled with inhaled corticosteroids and long-acting beta agonists. Use of the treatment is contraindicated in patients with implantable devices and those with sensitivities to lidocaine, atropine or benzodiazepines. It should also not be used while patients are experiencing an asthma exacerbation, active respiratory infection, bleeding disorder, or within 2 weeks of making changes in their corticosteroid regimen. The same area of the lung should not be treated more than once with bronchial thermoplasty.
POSITION STATEMENT:
Bronchial thermoplasty for the treatment of asthma and all other indications is considered experimental or investigational. There is insufficient clinical evidence published in the peer-reviewed literature regarding safety and long-term efficacy of bronchial thermoplasty on health outcomes.

BILLING/CODING INFORMATION:

CPT Coding:

<table>
<thead>
<tr>
<th>Code</th>
<th>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 (investigational)</td>
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<tr>
<td>31661</td>
<td>Bronchoscopy, rigid or flexible, including fluoroscopic guidance, when performed; with bronchial thermoplasty, 2 or more lobes (investigational)</td>
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REIMBURSEMENT INFORMATION:
Refer to section entitled POSITION STATEMENT.

PROGRAM EXCEPTIONS:

Federal Employee Program (FEP): Follow FEP guidelines.

State Account Organization (SAO): Follow SAO guidelines.

Medicare Advantage products:

No National Coverage Determination (NCD) and/or Local Coverage Determination (LCD) were found at the time of the last guideline reviewed date.

DEFINITIONS:

Stepwise approach to care: Guidelines from the National Heart, Lung and Blood Institute (NHLBI) define 6 pharmacologic steps for the treatment of asthma (step 1 for intermittent asthma, and steps 2 – 6 for persistent asthma) for individual's ≥ 12 years of age.

The preferred daily medications:
Step 1: short-acting beta-agonists as needed;
Step 2: low-dose inhaled corticosteroids (ICS);
Step 3: ICS and long-acting beta-agonists (LABA) or medium-dose ICS;
Step 4: medium dose ICS and LABA;
Step 5: high-dose ICS and LABA; AND
Step 6: high-dose ICS and LABA, and oral corticosteroids.

RELATED GUIDELINES:
None applicable.

OTHER:
None applicable.
REFERENCES:

1. American College of Allergy, Asthma & Immunology Statement on bronchial thermoplasty, 01/01/15.


30. O'Reilly A, Lane S. What is the role of bronchial thermoplasty in the management of severe asthma? Therapeutic Advances in Respiratory Disease 2018 Jan-Dec; 12:175346618792410.


COMMITTEE APPROVAL:
This Medical Coverage Guideline (MCG) was approved by the BCBSF Medical Policy & Coverage Committee on 07/25/19.

GUIDELINE UPDATE INFORMATION:

<table>
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<tr>
<td>08/15/10</td>
<td>New Medical Coverage Guideline.</td>
</tr>
<tr>
<td>08/15/11</td>
<td>Annual review; position statement unchanged; references updated.</td>
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<tr>
<td>01/01/12</td>
<td>Annual HCPCS coding update: added 0276T and 0277T.</td>
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<tr>
<td>09/15/12</td>
<td>Annual review; position statement unchanged; references updated.</td>
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<tr>
<td>01/01/13</td>
<td>Annual HCPCS coding update: added 31660 and 31661; removed 0276T and 0277T.</td>
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<tr>
<td>09/15/13</td>
<td>Scheduled review; position statement unchanged; Program Exceptions section updated; references updated.</td>
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<tr>
<td>09/15/14</td>
<td>Annual review; position statement unchanged; Program Exceptions section updated; references updated.</td>
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<tr>
<td>11/01/15</td>
<td>Revision: ICD-9 Codes deleted.</td>
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<tr>
<td>09/15/16</td>
<td>Review; no change in position statement. Updated description and references.</td>
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<tr>
<td>03/06/17</td>
<td>Updated program exceptions.</td>
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<tr>
<td>08/15/17</td>
<td>Review; no change in position statement. Updated references.</td>
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<tr>
<td>11/15/17</td>
<td>Revised position statement; added and all indications.</td>
</tr>
<tr>
<td>09/15/18</td>
<td>Review; revised position statement. Updated references.</td>
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<td>08/15/19</td>
<td>Review; no change in position statement. Updated references.</td>
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