

Bronchial Thermoplasty Clinical Coverage Criteria

Overview

Asthma is a chronic disease of the lungs in which inflammation causes the bronchi to swell and narrow the airways creating mild to severe chest tightness, coughing, shortness of breath and wheezing. Treatment is dependent on the severity and recurrence of symptoms and usually consists of inhaled corticosteroids and long-acting beta-agonists.

Bronchial thermoplasty is a minimally invasive procedure that involves the delivery of radiofrequency energy during bronchoscopy to the airway smooth muscles. The main evidence for bronchial thermoplasty consists of three randomized controlled trials. Two compared bronchial thermoplasty to usual care (Cox et al, 2007, Pavord et al., 2007) and the other compare bronchial thermoplasty to a sham bronchoscopic procedure (Castro et al., 2010). The only sham-controlled trial of bronchial thermoplasty (Castro et al., 2010) failed to achieve its primary end-point and has left many unanswered questions about the results reported in that trial. In 2014, the American Thoracic Society (ATS)/ European Respiratory Society (ERS) Task Force recommended that bronchial thermoplasty be performed on in the context of an IRB-approved clinical trial (Chung et al., 2014), while the American College of Chest Physicians recommended bronchial thermoplasty for those adult patients with severe persistent, poorly-controlled asthma who continue to experience asthma exacerbations, emergency department visits and hospitalizations despite maximal medical treatment.

The Alair® Bronchial Thermoplasty System (Boston Scientific, Natick, MA, USA), was FDA-approved on April 27, 2010 (P0800032) for the treatment of severe persistent asthma in patients 18 years and older whose asthma is not well controlled with inhaled corticosteroids and long acting beta agonists. The Alair® Bronchial Thermoplasty system remains the only FDA-approved device for the treatment of severe persistent asthma.

Policy

This Policy applies to the following Fallon Health products:

- □ Commercial
- ☑ Medicare Advantage
- NaviCare
- ☑ PACE

Fallon Health follows guidance from the Centers for Medicare and Medicaid Services (CMS) for organization (coverage) determinations for Medicare Advantage plan members. National Coverage Determinations (NCDs), Local Coverage Determinations (LCDs), Local Coverage Articles (LCAs) and guidance in the Medicare manuals are the basis for coverage determinations. When there is no NCD, LCD, LCA or manual guidance, Fallon Health Clinical Coverage Criteria are used for coverage determinations.

Medicare does not have a National Coverage Determination (NCD) for bronchial thermoplasty. National Government Services, Inc. does not have a Local Coverage Determinations (LCD) or Local Coverage Article (LCA) for bronchial thermoplasty at this time (MCD search 6/15/2021).

For plan members enrolled in NaviCare, Fallon Health follows Medicare guidance for coverage determinations. In the event that there is no Medicare guidance or if the plan member does not meet medical necessity criteria in Medicare guidance, Fallon Health Clinical Coverage Criteria are used for coverage determinations for NaviCare members. Fallon Health's Clinical Coverage Criteria are developed in accordance with the definition of Medical Necessity in 130 CMR 450.204.

Each PACE plan member is assigned to an Interdisciplinary Team. PACE provides participants with all the care and services covered by Medicare and Medicaid, as authorized by the interdisciplinary team, as well as additional medically necessary care and services not covered by Medicare and Medicaid. With the exception of emergency care and out-of-area urgently needed care, all care and services provided to PACE plan members must be authorized by the interdisciplinary team.

Fallon Health Clinical Coverage Criteria are used to determine medical necessity for MassHealth members. Fallon Health Clinical Coverage Criteria are developed in accordance with the definition of Medical Necessity in 130 CMR 450.204.

Bronchial Thermoplasty requires prior authorization.

Fallon Health Clinical Coverage Criteria

Requests must be supported by the treating provider(s) medical records. All the below criteria must be met:

- 1. The member must be 18 years of age or older.
- 2. The member has been diagnosed with severe persistent asthma with daily symptoms resulting in the use of a rescue inhaler such as the below:
 - Wheezing, coughing, chest tightness, and shortness of breath.
 - Persistent nighttime symptoms.
- 3. The severe symptoms are limiting the member's daily physical activities.
- 4. The member's symptoms have been treated and medically managed by an Asthma Specialist for a minimum of 6 months.
- 5. Evidence in the medical records supporting the member's symptoms are not responding to high dose inhaled corticosteroids and long-acting-beta-agonists for a minimum of 3 months for severe asthma exacerbations 2 or more times requiring oral steroids or being considered for chronic oral steroids or requiring hospitalizations.
- 6. The member is a non-smoker for at least 1 year.
- 7. The member does not have a contraindication to bronchial thermoplasty:
 - 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 should not be retreated. There is no clinical data on the safety and/or effectiveness of repeat treatments.

Exclusions

Any use of bronchial thermoplasty other than outlined above.

Coding

The following codes are included below for informational purposes only; inclusion of a code does not constitute or imply coverage or reimbursement.

Code	Description
31660	Bronchoscopy, rigid or flexible, including fluoroscopic guidance, when performed; with bronchial thermoplasty, 1 lobe
31661	Bronchoscopy, rigid or flexible, including fluoroscopic guidance, when performed; with bronchial thermoplasty, 2 or more lobes

References

- 1. Pavord ID, Cox G, Thomson NC, et al. Safety and efficacy of bronchial thermoplasty in symptomatic, severe asthma. *Am J Respir Crit Care Med*. 2007;176(12):1185-1191.
- Castro M, Rubin AS, Laviolette M, et al. Effectiveness and safety of bronchial thermoplasty in the treatment of severe asthma: a multicenter, randomized, double-blind, sham-controlled clinical trial. Am J Respir Crit Care Med. 2010;181(2):116-124.
- Thomson NC, Rubin AS, Niven RM, et al. Long-term (5 year) safety of bronchial thermoplasty: Asthma Intervention Research (AIR) trial. BMC Pulm Med. 2011;11:8.
- 4. Wechsler ME, Laviolette M, Rubin AS, et al. Bronchial thermoplasty: Long-term safety and effectiveness in patients with severe persistent asthma. *J Allergy Clin Immunol*. 2013;132(6):1295-1302.
- 5. Torrego A, Solà I, Munoz AM, et al. Bronchial thermoplasty for moderate or severe persistent asthma in adults. *Cochrane Database Syst Rev.* 2014;3:CD009910.
- 6. Bicknell S, Chaudhuri R, Lee N, et al. Effectiveness of bronchial thermoplasty in severe asthma in "real life" patients compared with those recruited to clinical trials in the same centre. *Ther Adv Respir Dis.* 2015;9(6):267-271.
- 7. Chakir J, Haj-Salem I, Gras D, et al. Effects of bronchial thermoplasty on airway smooth muscle and collagen deposition in asthma. *Ann Am Thorac Soc.* 2015;12(11):1612-1618.
- 8. Zhou JP, Feng Y, Wang Q, Zhou LN, Wan HY, Li QY. Long-term efficacy and safety of bronchial thermoplasty in patients with moderate-to-severe persistent asthma: a systemic review and metaanalysis. *J Asthma*. 2016:53(1):94-100.
- 9. Chupp G, Laviolette M, Cohn L, et. al. Long-term outcomes of bronchial thermoplasty in subjects with severe asthma: a comparison of 3-year follow-up results from two prospective multicentre studies. *Eur Respir J*. 2017 Aug 31;50(2).
- 10. Bonta PI, Chanez P, Annema JT, et. al. Bronchial Thermoplasty in Severe Asthma: Best Practice Recommendations from an Expert Panel. *Respiration*. 2018 May; 95(5): 289–300.
- 11. O'Reilly A, Browne I, Watchorn D, et. al. The efficacy and safety of bronchial thermoplasty in severe persistent asthma on extended follow-up. QJM. 2018 Mar 1;111(3):155-159. Bonta PI, Chanez P, Annema JT, Shah PL, Niven R. Bronchial Thermoplasty in Severe Asthma: Best Practice Recommendations from an Expert Panel. Respiration. 2018;95(5):289-300..
- 12. Castro M, Rubin A, Laviolette M, Hanania NA, Armstrong B, Cox G; AIR2 Trial Study Group. Persistence of effectiveness of bronchial thermoplasty in patients with severe asthma. *Ann Allergy Asthma Immunol.* 2011 Jul;107(1):65-70.
- 13. Cox G, Thomson NC, Rubin AS, Niven RM, Corris PA, Siersted HC, et al. Asthma control during the year after bronchial thermoplasty. *N Engl J Med*. 2007;356:1327–1337.
- 14. American College of Chest Physicians (CHEST). Position Statement for Coverage and Payment for Bronchial Thermoplasty. May 12, 2014. Available at: http://www.chestnet.org/News/CHEST-News/2014/05/Position-Statement-for-Coverage-and-Payment-for-Bronchial-Thermoplasty. Accessed August 24, 2020.
- 15. Chung KF, Wenzel SE, Brozek JL, et al. International ERS/ATS guidelines on definition, evaluation and treatment of severe asthma [published correction appears in Eur Respir J. 2014 Apr;43(4):1216. Dosage error in article text] [published correction appears in Eur Respir J. 2018 Jul 27;52(1):]. *Eur Respir J.* 2014;43(2):343-373.
- 16. Nasim F, Iyer VN. Bronchial thermoplasty-an update. Ann Thorac Med. 2018;13(4):205-211.
- Torrego A, Solà I, Munoz AM, Roqué I Figuls M, Yepes-Nuñez JJ, Alonso-Coello P, Plaza V. Bronchial thermoplasty for moderate or severe persistent asthma in adults. *Cochrane Database Syst Rev.* 2014 Mar 3;3:CD009910

Policy history

Origination date: 06/01/2018

Approval(s): Technology Assessment Committee: 05/15/2018 (Introduced as a new

policy), 05/22/2019 (updated references), 10/27/2020 (updated criteria to include additional contraindications, updated references); 6/22/2021 (annual review, no changes; 06/15/2021: Added clarifying language related to Medicare Advantage, NaviCare and PACE under policy

section).

Not all services mentioned in this policy are covered for all products or employer groups. Coverage is based upon the terms of a member's particular benefit plan which may contain its own specific provisions for coverage and exclusions regardless of medical necessity. Please consult the product's Evidence of Coverage for exclusions or other benefit limitations applicable to this service or supply. If there is any discrepancy between this policy and a member's benefit plan, the provisions of the benefit plan will govern. However, applicable state mandates take precedence with respect to fully-insured plans and self-funded non-ERISA (e.g., government, school boards, church) plans. Unless otherwise specifically excluded, federal mandates will apply to all plans.