

Bronchial Thermoplasty



INDEPENDENT CARE HEALTH PLAN

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Medical Coverage Policy

Table of Contents

[Related Medical/Pharmacy Coverage Policies](#)

[Related Documents](#)

[Description](#)

[Coverage Determination](#)

[Coverage Limitations](#)

[Coding Information](#)

[References](#)

[Appendix](#)

[Change Summary](#)

Disclaimer The Coverage Summaries are reviewed by the iCare Medicare Utilization Management Committee. Clinical policy is not intended to preempt the judgment of the reviewing medical director or dictate to health care providers how to practice medicine. Health care providers are expected to exercise their medical judgment in rendering appropriate care. Identification of selected brand names of devices, tests and procedures in a medical coverage policy is for reference only and is not an endorsement of any one device, test, or procedure over another. Clinical technology is constantly evolving, and we reserve the right to review and update this policy periodically. References to CPT® codes or other sources are for definitional purposes only and do not imply any right to reimbursement or guarantee of claims payment. No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any shape or form or by any means, electronic, mechanical, photocopying or otherwise, without permission from iCare.

Related Medical/Pharmacy Coverage Policies

N/A

Related Documents

Please refer to [CMS website](#) for the most current applicable National Coverage Determination (NCD)/Local Coverage Determination (LCD)/Local Coverage Article (LCA)/CMS Online Manual System/Transmittals.

There are no NCD and/or LCDs for Bronchial Thermoplasty.

Description

Bronchial thermoplasty (BT) has been suggested as a treatment for severe asthma in individuals 18 years of age or older whose asthma is not well controlled with standard medical therapy (eg, inhaled corticosteroids

and long-acting beta-agonists). This treatment was designed to reduce, debulk or partially eliminate excess smooth muscle tissue in the central and peripheral airways to decrease the number of severe asthma attacks.¹³ One example of a US Food & Drug Administration (FDA)-approved bronchial thermoplasty system is the Alair Bronchial Thermoplasty System.

During the outpatient procedure, a flexible bronchoscope is inserted into the lungs via the individual's mouth or nose. The thermoplasty catheter is then introduced through a channel within the bronchoscope. Once in place, the catheter tip expands, allowing four electrodes to contact the airway wall. Using a radiofrequency controller, the physician delivers controlled thermal energy to heat smooth muscle in the airway wall to approximately 150 degrees Fahrenheit (enough to thin smooth muscle tissue mass without causing tissue damage or scarring). Three sessions are required approximately 3 weeks apart to treat all accessible airways in both lungs, except for the right middle lobe.¹³

Bronchial thermoplasty is not intended to be performed on individuals with asthma who have a known sensitivity to atropine, benzodiazepines, lidocaine or for those with a pacemaker, implantable cardioverter defibrillator or other implantable electronic devices.²¹

Coverage Determination

iCare follows the CMS requirement that only allows coverage and payment for services that are reasonable and necessary for the diagnosis or treatment of illness or injury or to improve the functioning of a malformed body member except as specifically allowed by Medicare.

In interpreting or supplementing the criteria above and in order to determine medical necessity consistently, iCare may consider the following criteria:

The use of the criteria in this Medicare Advantage Medical Coverage Policy provides clinical benefits highly likely to outweigh any clinical harms. Services that do not meet the criteria above are not medically necessary and thus do not provide a clinical benefit. Medically unnecessary services carry risks of adverse outcomes and may interfere with the pursuit of other treatments which have demonstrated efficacy.

Coverage Limitations

[US Government Publishing Office. Electronic code of federal regulations: part 411 – 42 CFR § 411.15 - Particular services excluded from coverage](#)

Bronchial thermoplasty (BT) will not be considered medically reasonable and necessary. A review of the current medical literature shows that the evidence is insufficient to determine that this service is standard medical treatment. There remains an absence of randomized, blinded clinical studies examining benefit and long-term clinical outcomes establishing the value of this service in clinical management.

Summary of Evidence

Several studies showed an inconsistent benefit across multiple outcomes. A low-quality body of evidence suggests that BT may reduce asthma exacerbations, healthcare utilization and medication usage as well as

potentially improving symptom control and asthma-related quality of life in individuals with severe asthma. Improvements in symptom control and quality of life measures following BT relative to baseline values were clinically significant. Pulmonary function measures are not improved with BT. Comparative data were available through 1 year after thermoplasty, while open-label follow-up was available for up to 10 years post BT and showed a sustained benefit compared with baseline. Adverse events were common during the BT treatment period. Further studies should seek to determine which patients with severe asthma are most likely to benefit from treatment and evaluate the relative effectiveness of BT compared with other add-on treatments for severe persistent asthma, including monoclonal antibody therapies.¹⁵

Coding Information

Any codes listed on this policy are for informational purposes only. Do not rely on the accuracy and inclusion of specific codes. Inclusion of a code does not guarantee coverage and/or reimbursement for a service or procedure.

CPT® Code(s)	Description	Comments
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	
CPT® Category III Code(s)	Description	Comments
No code(s) identified		
HCPCS Code(s)	Description	Comments
C1886	Catheter, extravascular tissue ablation, any modality (insertable)	

References

1. Agency for Healthcare Research and Quality (AHRQ). Comparative Effectiveness Review. Effectiveness and safety of bronchial thermoplasty in management of asthma. <https://www.ahrq.gov>. Published December 2017. Accessed June 14, 2023.
2. American Academy of Allergy, Asthma and Immunology (AAAAI). Algorithm for the diagnosis and management of asthma: a practice parameter update. <https://www.aaaai.org>. Published November 1998. Accessed June 15, 2023.
3. American Academy of Allergy, Asthma and Immunology (AAAAI). Attaining optimal asthma control: a practice parameter. <https://www.aaaai.org>. Published October 7, 2005. Accessed June 15, 2023.

4. American Academy of Allergy, Asthma and Immunology (AAAAI). Pathogenesis, prevalence, diagnosis and management of exercise-induced bronchoconstriction: a practice parameter. <https://www.aaaai.org>. Published December 2010. Accessed June 15, 2023.
5. American Academy of Allergy, Asthma and Immunology (AAAAI). Practice Parameter. Exercise-induced bronchoconstriction update – 2016. <https://www.aaaai.org>. Published May 25, 2016. Accessed June 15, 2023.
6. American College of Allergy, Asthma and Immunology (ACAAI). Statement on bronchial thermoplasty. <https://www.acaai.org>. Published January 5, 2018. Accessed June 15, 2023.
7. American College of Chest Physicians (ACCP). Position Statement. Coverage and payment for bronchial thermoplasty for severe persistent asthma. <https://www.chestnet.org>. Published May 12, 2014. Accessed June 15, 2023.
8. American Thoracic Society (ATS). International ERS/ATS guidelines on definition, evaluation and treatment of severe asthma. <https://www.thoracic.org>. Published 2014. Accessed June 15, 2023.
9. ClinicalKey. Feller-Kopman D, Shojaee S. Therapeutic bronchoscopy: interventional techniques. In: Broaddus V, Ernst J, King T, et al. *Murray & Nadel's Textbook of Respiratory Medicine*. 7th ed. Elsevier; 2022:388-398.e3. <https://www.clinicalkey.com>. Accessed June 26, 2023.
10. ClinicalKey. Lugogo N, Que L, Carr T, Kraft M. Asthma: diagnosis and management. In: Broaddus V, Ernst J, King T, et al. *Murray & Nadel's Textbook of Respiratory Medicine*. 7th ed. Elsevier; 2022:831-849.e6. <https://www.clinicalkey.com>. Accessed June 26, 2023.
11. ClinicalKey. Viswanathan R, Busse W. Management of asthma in adolescents and adults. In: Burks A, Holgate S, O'Hehir R, et al. *Middleton's Allergy: Principles and Practice*. 9th ed. Elsevier; 2020:858-890.e1. <https://www.clinicalkey.com>. Accessed June 26, 2023.
12. ECRI Institute. Clinical Evidence Assessment. Alair bronchial thermoplasty system (Boston Scientific, Inc.) for treating asthma. <https://www.ecri.org>. Published April 30, 2007. Updated May 28, 2020. Accessed June 14, 2023.
13. ECRI Institute. Emerging Technology Report. Bronchial thermoplasty (Alair system) for treating adult patients with severe symptomatic asthma. <https://www.ecri.org>. Published February 14, 2011. Updated October 15, 2014. Accessed June 14, 2023.
14. Global Initiative for Asthma (GINA). Global strategy for asthma management and prevention. <https://www.ginasthma.org>. Published 2023. Accessed June 14, 2023.
15. Hayes, Inc. Health Technology Assessment. Bronchial thermoplasty for treatment of asthma in adults. <https://evidence.hayesinc.com>. Published July 5, 2022. Accessed June 14, 2023.
16. MCG Health. Bronchial thermoplasty. 27th edition. <https://www.mcg.com>. Accessed August 30, 2023.

17. Merck Manual: Professional Version. Asthma. <https://www.merckmanuals.com>. Updated March 2022. Accessed June 14, 2023.
18. National Heart, Lung and Blood Institute (NHLBI). 2020 focused updates to the asthma management guidelines: a report from the National Asthma education and prevention program coordinating committee expert panel working group. <https://www.nhlbi.nih.gov>. Updated July 5, 2021. Accessed June 15, 2023.
19. UpToDate, Inc. Mechanisms and clinical implications of glucocorticoid resistance in asthma. <https://www.uptodate.com>. Updated May 2023. Accessed June 14, 2023.
20. UpToDate, Inc. Treatment of severe asthma in adolescents and adults. <https://www.uptodate.com>. Updated May 2023. Accessed June 14, 2023.
21. US Food & Drug Administration (FDA). Summary of safety and effectiveness data: Alair bronchial thermoplasty system. <https://www.fda.gov>. Published April 27, 2010. Accessed May 20, 2014.

Appendix

N/A

Change Summary

- 01/01/2024 New Policy.