



MASSACHUSETTS

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Medical Policy

Endobronchial Brachytherapy

Table of Contents

- [Policy: Commercial](#)
- [Policy: Medicare](#)
- [Authorization Information](#)
- [Coding Information](#)
- [Description](#)
- [Policy History](#)
- [Information Pertaining to All Policies](#)
- [References](#)

Policy Number: 091

BCBSA Reference Number: 8.03.11

Related Policies

None

Policy

Commercial Members: Managed Care (HMO and POS), PPO, and Indemnity Medicare HMO BlueSM and Medicare PPO BlueSM Members

Endobronchial brachytherapy is **MEDICALLY NECESSARY** in the following clinical situations:

- In patients with primary endobronchial tumors who are not otherwise candidates for surgical resection or external beam radiation therapy (EBRT) due to co-morbidities or location of the tumor, or
- As a palliative therapy for airway obstruction or severe hemoptysis in patients with primary, metastatic, or recurrent endobronchial tumors.

Other applications of endobronchial brachytherapy including, but not limited to, its use as a radiation “boost” to curative external-beam radiotherapy, as a treatment for asymptomatic recurrences of non-small-cell cancer, or in the treatment of hyperplastic granulation tissue are **INVESTIGATIONAL**.

Prior Authorization Information

Commercial Members: Managed Care (HMO and POS)

Prior authorization is **NOT** required.

Commercial Members: PPO, and Indemnity

Prior authorization is **NOT** required.

Medicare Members: HMO BlueSM

Prior authorization is **NOT** required.

Medicare Members: PPO BlueSM

Prior authorization is **NOT** required.

CPT Codes / HCPCS Codes / ICD-9 Codes

The following codes are included below for informational purposes. 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. A draft of future ICD-10 Coding related to this document, as it might look today, is included below for your reference.

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

CPT Codes

CPT codes:	Code Description
31643	Bronchoscopy (rigid or flexible), including fluoroscopic guidance, when performed; with placement of catheter(s) for intracavitary radioelement application
77326	Brachytherapy isodose plan, simple (calculation made from single plane, one to four sources/ribbon application, remote afterloading brachytherapy, 1 to 8 sources)
77327	Brachytherapy isodose plan, intermediate (multiplane dosage calculations, application involving 5 to 10 sources/ribbons, remote afterloading brachytherapy, 9 to 12 sources)
77328	Brachytherapy isodose plan, complex; (multiplane isodose plan, volume implant calculations, over 10 sources/ribbons used, special spatial reconstruction, remote afterloading brachytherapy, over 12 sources)
77761	Intracavitary radiation source application; simple
77762	Intracavitary radiation source application; intermediate
77763	Intracavitary radiation source application; complex
77776	Interstitial radiation source application; simple
77777	Interstitial radiation source application; intermediate
77778	Interstitial radiation source application; complex
77785	Remote afterloading high dose rate radionuclide brachytherapy; 1 channel
77786	Remote afterloading high dose rate radionuclide brachytherapy; 2-12 channels
77787	Remote afterloading high dose rate radionuclide brachytherapy; over 12 channels
77790	Supervision, handling, loading of radiation source

ICD-9 Diagnosis Codes

ICD-9-CM diagnosis codes:	Code Description
162.2	Malignant neoplasm of main bronchus
162.3	Malignant neoplasm of upper lobe, bronchus or lung
162.4	Malignant neoplasm of middle lobe, bronchus or lung
162.5	Malignant neoplasm of lower lobe, bronchus or lung
162.8	Malignant neoplasm of other parts of bronchus or lung
162.9	Malignant neoplasm of bronchus and lung, unspecified
197.0	Secondary malignant neoplasm of lung
231.2	Carcinoma in situ of bronchus and lung

ICD-10 Diagnosis Codes

ICD-10-CM diagnosis codes:	Code Description
C34.00	Malignant neoplasm of unspecified main bronchus

ICD-10-CM diagnosis codes:	Code Description
C34.01	Malignant neoplasm of right main bronchus
C34.02	Malignant neoplasm of left main bronchus
C34.10	Malignant neoplasm of upper lobe, unspecified bronchus or lung
C34.11	Malignant neoplasm of upper lobe, right bronchus or lung
C34.12	Malignant neoplasm of upper lobe, left bronchus or lung
C34.2	Malignant neoplasm of middle lobe, bronchus or lung
C34.30	Malignant neoplasm of lower lobe, unspecified bronchus or lung
C34.31	Malignant neoplasm of lower lobe, right bronchus or lung
C34.32	Malignant neoplasm of lower lobe, left bronchus or lung
C34.80	Malignant neoplasm of overlapping sites of unspecified bronchus and lung
C34.81	Malignant neoplasm of overlapping sites of right bronchus and lung
C34.82	Malignant neoplasm of overlapping sites of left bronchus and lung
C34.90	Malignant neoplasm of unspecified part of unspecified bronchus or lung
C34.91	Malignant neoplasm of unspecified part of right bronchus or lung
C34.92	Malignant neoplasm of unspecified part of left bronchus or lung
C78.00	Secondary malignant neoplasm of unspecified lung
C78.01	Secondary malignant neoplasm of right lung
C78.02	Secondary malignant neoplasm of left lung
D02.20	Carcinoma in situ of unspecified bronchus and lung
D02.21	Carcinoma in situ of right bronchus and lung
D02.22	Carcinoma in situ of left bronchus and lung

Description

Brachytherapy is a form of radiation treatment used to stop the growth of cancer cells and involves placing radioactive material directly into or near a tumor. This allows the tumor to receive a dose of radiation while reducing the exposure to surrounding tissue. Treatment time varies, depending upon the method of treatment, the type of radioactive material, and the cancer site.

Endobronchial brachytherapy is the delivery of radiation therapy directly to endobronchial lesions either intraluminally or interstitially using permanently implanted radioactive seeds or a temporary afterloading implant.

A flexible bronchoscope is passed transnasally; a separate port on the bronchoscope allows passage of the afterloading catheter to the target lesion. Once the catheter is placed, the radioisotope can be administered by the high-dose radiotherapy afterloading machine.

Summary

Studies of endobronchial brachytherapy for primary treatment have principally included patients with early-stage endobronchial tumors who are not candidates for surgical resection or external-beam radiation due to comorbidities or the location of the tumor. One study demonstrated an increased survival time for patients with inoperable endobronchial tumors or metastasis treated with endobronchial brachytherapy. Due to lack of an alternative treatment; endobronchial brachytherapy in patients with primary endobronchial tumors who are not candidates for surgical resection or EBRT due to comorbidities or location of the tumor, is considered medically necessary.

The American College of Radiology (ACR) appropriateness criteria considers endobronchial brachytherapy a palliative treatment for patients with endobronchial lesions causing obstruction or hemoptysis.

The 2009 National Comprehensive Cancer Network (NCCN) practice guidelines for NSCLC concluded that using brachytherapy to relieve airway obstruction may increase both survival and quality of life, especially in severely compromised patients.

The ACR and NCCN guidelines regarding endobronchial brachytherapy along with limited literature suggesting a beneficial health effect for the indications of severe hemoptysis and relieving airway obstruction support the treatment as medically necessary in these clinical situations.

NCCN guidelines indicate that endobronchial brachytherapy is a treatment option for tumor in situ and for the management of benign tracheal stenosis in the treatment of hyperplastic granulation tissue. However, due to lack of supportive studies endobronchial Brachytherapy does not meet our technology assessment guidelines and is therefore considered an investigational application for these indications.

Policy History

Date	Action
5/2014	New references from BCBSA National medical policy. Updated Coding section with ICD10 procedure and diagnosis codes, effective 10/2015.
4/2013	New references from BCBSA National medical policy.
11/2011-4/2012	Medical policy ICD 10 remediation: Formatting, editing and coding updates. No changes to policy statements.
7/2011	Reviewed - Medical Policy Group – Hematology and Oncology. No changes to policy statements.
4/2011	Reviewed - Medical Policy Group – Cardiology and Pulmonology. No changes to policy statements.
9/2010	Reviewed - Medical Policy Group – Hematology and Oncology. No changes to policy statements.
3/2010	Reviewed - Medical Policy Group – Pulmonology, Allergy/Asthma/Immunology, ENT and Otolaryngology. No changes to policy statements.
6/1/2010	BCBS Association National Policy Review. Changes to policy statements
9/2009	Reviewed - Medical Policy Group – Hematology and Oncology. No changes to policy statements.
4/1/2009	Medical Policy #091 created, effective 4/1/2009.

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](#)

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