

**Policy #: 091**

**Original policy date: 4/1/09**  
**Revised Date: 10/2/09**

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**Title**

**Endobronchial Brachytherapy**

**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.

In the outpatient setting, the patient receives local anesthesia and monitored sedation. 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. Patients with potential airway compromise due to bleeding may require treatment with a rigid bronchoscope, which requires general anesthesia and frequently an overnight hospitalization.

**When services are covered for all Products (including Medicare HMO Blue, Medicare PPO Blue and Blue Medicare PFFS PlusRx)**

We cover **endobronchial brachytherapy** in the following clinical situations:<sup>1</sup>

- 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
- As a palliative therapy in patients with obstructing endobronchial primary or metastatic tumors.

**When services are not covered for all Products (including Medicare HMO Blue, Medicare PPO Blue and Blue Medicare PFFS PlusRx)**

We do not cover **other applications of endobronchial brachytherapy including, but not limited to, its use as a radiation “boost” to curative external beam radiotherapy or in the treatment of hyperplastic granulation tissue<sup>1</sup>**, because it is considered investigational as it does not meet our Medical Technology Assessment Guidelines, #350.

**Individual consideration**

All our medical policies are written for the majority of people with a given condition. Each policy is based on medical science. For many of our medical policies, each individual’s unique clinical circumstances may be considered in light of current scientific literature. For consideration of an individual patient, physicians may send relevant clinical information to:

**For services already billed**

Blue Cross Blue Shield of Massachusetts  
 Provider Appeals  
 PO Box 986065  
 Boston, MA 02298

**Prior to performance of service**

Blue Cross Blue Shield of Massachusetts  
 Case Creation/Medical Policy  
 One Enterprise Drive  
 Quincy, MA 02171  
 Tel: 1-800-327-6716  
 Fax: 1-888-641-5330

**Managed care guidelines**

- Authorizations are not required if performed in an outpatient setting.
- All specialist visits requires a referral.
- Authorizations are required for all inpatient services.

**Indemnity and PPO guidelines**

- Authorizations are not required if performed in an outpatient setting.
- Authorizations are required for all inpatient services.

**Coding information**

*Procedure codes are from current CPT, HCPCS Level II, Revenue Code, and/or ICD-9-CM manuals, as recommended by the American Medical Association, Centers for Medicare and Medicaid Services and American Hospital Associations. Blue Cross Blue Shield Association national codes may be developed when appropriate.*

*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.*

**Catheter Placement**

- CPT code 31643, bronchoscopy (rigid or flexible); with placement of catheter(s) for intracavitary radioelement application

**NOTE:** The above code will deny, leaving no patient balance if submitted with a diagnosis other than the covered listed conditions. See footnote 2 for medically necessary diagnoses for all Products.

**Clinical Brachytherapy**

- CPT code 77326, brachytherapy isodose plan, simple (calculation made from single plane, one to four sources/ribbon application, remote afterloading brachytherapy, 1 to 8 sources)
- CPT code 77327, brachytherapy isodose plan, intermediate (multiplane dosage calculations, application involving 5 to 10 sources/ribbons, remote afterloading brachytherapy, 9 to 12 sources)
- CPT code 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)
- CPT code 77761, intracavitary radiation source application; simple
- CPT code 77762, intracavitary radiation source application; intermediate
- CPT code 77763, intracavitary radiation source application; complex
- CPT code 77776, interstitial radiation source application; simple
- CPT code 77777, interstitial radiation source application; intermediate
- CPT code 77778, interstitial radiation source application; complex
- CPT code 77785, remote afterloading high dose rate radionuclide brachytherapy; 1 channel (*New CPT code, effective 1/1/09*)

- CPT code 77786, remote afterloading high dose rate radionuclide brachytherapy; 2-12 channels (*New CPT code, effective 1/1/09*)
- CPT code 77787, remote afterloading high dose rate radionuclide brachytherapy; over 12 channels (*New CPT code, effective 1/1/09*)
- CPT code 77790, supervision, handling, loading of radiation source

#### Other information

- For our Medical Technology Assessment Guidelines, see document # [350](#).

#### Policy update history

New Policy, effective **4/1/09**. Reviewed 9/2009 MPG-Hematology and Oncology, no changes in coverage were made.

#### Footnotes

<sup>1</sup>Based upon BCBSA national policy 8.03.11 Endobronchial Brachytherapy issued 8/08.

#### <sup>2</sup>ICD-9 codes that support medical necessity for all Products (including Medicare HMO Blue, Medicare PPO Blue, and Blue Medicare PFFS PlusRx products):

- 162.2-162.9: Malignant neoplasm of bronchus or lung
- 197.0: Secondary malignant neoplasm of respiratory and digestive systems, lung
- 231.2: Carcinoma in situ of respiratory system, bronchus and lung.

#### References

##### References for footnote 1:

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6. Coriat R, Diaz O, de la Fouchardière C et al. Endobronchial metastases from colorectal adenocarcinomas: clinical and endoscopic characteristics and patient prognosis. *Oncology* 2007; 73(5-6):395-400.
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9. Hennequin C, Bleichner O, Trédaniel J et al. Long-term results of endobronchial brachytherapy: a curative treatment? *Int J Radiat Oncol Biol Phys* 2007; 67(2):425-30.
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12. Madu CN, Machuzak MS, Serman DH et al. High-dose-rate (HDR) brachytherapy for the treatment of benign obstructive endobronchial granulation tissue. *Int J Radiat Oncol Biol Phys* 2006; 66(5):1450-6.

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