ENDOBRONCHIAL BRACHYTHERAPY
RAD605.015

COVERAGE:

Endobronchial Brachytherapy may be eligible for coverage for the following:

- In patients with primary endobronchial tumors who are not otherwise candidates for surgical resection or external beam radiation therapy (EBRT) due to comorbidities or location of tumor OR

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

Other applications of endobronchial brachytherapy are not eligible for coverage as they are considered investigational including, but not limited to, its use as a radiation "boost" to EBRT.

DESCRIPTION:

Endobronchial Brachytherapy, or the implantation of radioactive pellets (seeds) into a body cavity or directly into tissue, is a treatment for non small cell lung cancer that has been proposed as an alternative or complement to External Beam Radiotherapy (EBRT). With seed implantation, predictable higher doses of radiation are used and the seeds can be implanted directly on the endobronchial lesions, improving local control over the cancer. This is done specifically for early stage nonresectable tumors without expansion into tubular lung sections (extraluminal extension) or as a palliative treatment of obstructing primary or metastatic tumors, while sparing the surrounding healthy tissue.

The transnasal approach is used to implant the seeds, and is guided by a flexible bronchoscope using a separate opening on the bronchoscope to place the afterloading catheter to the target lesion. Once the catheter is placed, the high-dose radiotherapy afterloading machine can administer the radioisotope. The isotope uses radioactive iodine (I125) or iridium (Ir192). Endobronchial Brachytherapy represents one approach to the local treatment of endobronchial lesions. Other technologies include electrocoagulation, cryosurgery, laser resection, and endobronchial stent placement. Brachytherapy has been investigated as a "boost" to curative EBRT. Patients with potential airway compromise due to bleeding may require treatment with a rigid bronchoscope, which requires general anesthesia and frequently an overnight hospitalization. Otherwise, endobronchial brachytherapy may be accomplished in an outpatient setting.

RATIONALE:

Endobronchial Brachytherapy has been shown to provide excellent rapid palliation and can also be selectively used with curative intent.

There are two general categories of patients who may be considered...
candidates for endobronchial brachytherapy:

1. Primary Treatment: Candidates for primary treatment have principally included patients with early stage endobronchial tumors who are otherwise not considered candidates for surgical resection EBRT due to comorbidities or location of the tumor. Results have predominantly been reported in case series where complete response rates in the range of 60-80% have been noted.

Brachytherapy has also been investigated as a technique to deliver a "boost" to patients undergoing EBRT. EBRT is typically the primary treatment for the majority of patients with non small cell carcinoma of the lung (NSCCL) due to the fact that the patient usually presents with surgically unresectable disease and NSCCL is unresponsive to chemotherapy. This has not been established as effective.

2. Palliative Treatment: Many patients with NSCCL are initially treated with EBRT but ultimately experience local recurrence. Unfortunately, many are not candidates for further external beam radiation therapy due to the limited tolerance of normal tissue. Therefore, endobronchial brachytherapy has been explored as an alternative. Short-term outcomes, such as hemoptysis, cough and dyspnea, and resolution of obstructive atelectasis or pneumonitis, are appropriate for palliative therapy. Studies show effective palliation in 60-100% of patients.

DISCLAIMER:

State and federal law, as well as contract language, including definitions and specific inclusions/exclusions, takes precedence over Medical Policy and must be considered first in determining coverage. The member’s contract benefits in effect on the date that services are rendered must be used. Any benefits are subject to the payment of premiums for the date on which services are rendered. Medical technology is constantly evolving, and we reserve the right to review and update Medical Policy periodically. HMO Blue Texas physicians who are contracted/affiliated with a capitated IPA/medical group must contact the IPA/medical group for information regarding HMO claims/reimbursement information and other general polices and procedures.

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