**Proton Beam Radiation Therapy**

**Origination:** 5/20/09  |  **Revised:** 10/3/16  |  **Annual Review:** 11/10/16

**Purpose:**

The Medical Technology Assessment Committee will review published scientific literature and information from appropriate government regulatory bodies (when available) related to Proton Beam Radiation Therapy in order to determine inclusion in the benefit plan.

**Recommendation:**

A recommendation was made by the MTAC following discussion by committee members based on current literature:

**Definition**

- Proton Beam Radiation Therapy (PBRT or PBT) differs from standard conformal radiation therapy (XRT). If given in sufficient doses, conventional radiation therapy techniques will control many cancers. Because of the inability to adequately conform the irradiation pattern to the cancer, healthy tissues may be damaged during XRT. Consequently, a less-than-desired dose frequently is used in XRT to reduce damage to healthy tissues and avoid subsequent unacceptable side effects. The characteristics of PBRT enable the physician to deliver full or higher doses while sparing surrounding healthy tissues and organs. PBRT is notably valuable for treating localized, isolated, solid tumors before they spread to other tissues and to the rest of the body.

**Coverage Guidelines**

PBRT is covered for the following radiosensitive tumors only if there is sufficient documentation that alternative forms of radiation therapy (i.e., conventional radiation therapy, Gamma Knife, CyberKnife, or Intensity-Modulated Radiation Therapy, etc.) would not be effective:

- Melanomas of the uveal tract (iris, ciliary body, and choroid) that are confined to the globe, and without evidence of distant metastasis;
- Base of the skull or axial skeleton tumors without evidence of metastasis;
- CNS lesions, including AVMs, located near vital structures without evidence of distant metastasis;
- Stereotactic administration of proton beam radiotherapy is covered only for lesions that are located intracranially.
Proton Beam Radiation Therapy

Exclusion Criteria

- PBRT is not covered, and is considered investigational, for all other tumors not listed above; this includes, but is not limited to: Age-related Macular Degeneration (AMD), Non-uveal Melanomas, Hepatocellular Carcinoma, Lung cancer, Breast cancer, and Esophageal cancer.
- Stereotactic administration of proton beam radiotherapy for extracranial lesions is not a covered benefit.

References:

**Proton Beam Radiation Therapy**

**References, continued:**


**Disclaimer Information:**

Coverage Issues Guidelines and Medical Technology Assessment Recommendations are developed to determine coverage for AvMed’s benefits, and are published to provide a better understanding of the basis upon which coverage decisions are made. AvMed makes coverage decisions using these guidelines, along with the Member’s benefit document. The use of this guideline is neither a guarantee of payment nor a final prediction of how specific claim(s) will be adjudicated.

Coverage Issues Guidelines and Medical Technology Assessment Recommendations are developed for selected therapeutic or diagnostic services found to be safe, but proven effective in a limited, defined population of patients or clinical circumstances. They include concise clinical coverage criteria based on current literature review, consultation with practicing physicians in the AvMed service area who are medical experts in the particular field, FDA and other government agency policies, and standards adopted by national accreditation organizations.

Treating providers are solely responsible for the medical advice and treatment of Members. This guideline may be updated and therefore is subject to change.