Proton Beam Radiation Therapy

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Purpose:

To provide proton beam radiation therapy guidelines for Population Health and Provider Alliances associates to reference when making benefit determinations.

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.

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.

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