

Medical Coverage Policy

Policy Number – MP21-017E

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Effective date – 10/23/2024

Proton beam radiotherapy

Background

Proton beam radiotherapy is a type of particle beam external radiation therapy that delivers a high radiation dose to a targeted site. Proton beams have the ability to deeply penetrate tissues and deliver focused radiation to the target, whilst sparing superficial and non-target tissues. Therefore, they are used to treat inoperable tumors or tumors located next to vital structures, where administration of adequate doses of conventional radiation is impossible to achieve.

Policy statement

Disclaimer: This policy is applicable to TRICARE Prime and Select beneficiaries and may not apply to Active Duty Service Members (ADSM) under Supplemental Health Care Program (SHCP) or TRICARE Prime Remote (TPR) in accordance with TRICARE Operations Manual (TOM) Chapter 17, Section 3. Please review TOM Chapter 17, Section 3, Paragraph 2.0 onwards, regarding SHCP coverage and any TRICARE-specific exclusions included in this coverage policy to accurately determine the benefit for ADSMs.

Proton beam radiotherapy may be covered for the following conditions:

- I. Benign or malignant central nervous system tumors including medulloblastoma, astrocytoma, glioblastoma, acoustic neuroma, craniopharyngioma, meningioma, pituitary microadenoma, pineal gland tumors
- II. Arteriovenous malformations
- III. Benign and malignant involving the base of the skull or axial skeleton, such as chordomas and chondrosarcomas
- IV. Uveal melanoma with no evidence of distant metastasis
- V. Malignant solid tumors in children up to 18 years of age
- VI. Prostate cancer
- VII. Soft tissue sarcoma
- VIII. Thymoma
- IX. Hodgkin's disease when conventional radiotherapy is contraindicated
- X. For conditions not listed above, proton beam radiotherapy may be covered if the medical record demonstrates the advantage of this treatment over conventional radiation therapy AND one of the following conditions are met:
 - a. For the treatment of primary lesions, the intent must be curative; OR
 - b. For the treatment of metastatic lesions, there must be an expectation of long term benefit or complete eradication of the metastatic lesion which could not have been achieved with conventional therapy

Limitations of Coverage

- I. Juvenile nasal angiofibroma is excluded from coverage per [TRICARE](#) policy
- II. Inoperable small cell lung cancer is excluded from coverage per [TRICARE](#) policy

TRICARE Policy Manual (TPM) Chapter 1, section 3.1

2.8 Post-operative proton beam radiosurgery/radiotherapy (CPT procedure codes 77520, 77522, 77523, and 77525) may be considered for cost-sharing when the diagnosis is sacral chordoma. See [Chapter 5, Section 3.1](#) for policy regarding proton beam radiosurgery/radiotherapy.

2.30 Effective February 16, 2016, Proton Beam Therapy (PBT) may be considered for cost-sharing for the treatment of thymoma.

3.0 EXCLUSIONS

3.2 Proton Beam Radiation Therapy (PBRT) for the treatment of juvenile nasal angiofibroma is unproven.

TPM Ch. 5, Sec. 3.1

3.1 Radiation therapy is also known as radiotherapy, radiation treatment, x-ray therapy, cobalt therapy, and proton beam therapy. The primary purpose of radiation therapy is to eliminate or shrink localized cancers (as opposed to cancers that have spread to distant parts of the body).

3.2 Stereotactic radiosurgery/radiotherapy is a method of delivering ionizing radiation to small intracranial targets. Stereotactic radiosurgery entails delivering a high dose in a single session. Stereotactic radiotherapy entails fractionating the dose over a number of treatments.

3.2.1 There are three main variations of stereotactic radiosurgery/radiotherapy: gamma beam or gamma knife, linear accelerator (linac), and charged particle beam (proton or helium ion). The three radiation delivery devices differ technically in several ways: source of radiation, size and shape of the radiation field, and range of radiation dosages.

4.4 Proton beam radiosurgery/radiotherapy is covered for the following indications. This list of indications is not all inclusive. Other indications are covered when documented by reliable evidence as safe, effective, and comparable or superior to standard care (proven).

- AVMs.
- Cushing's disease or acromegaly caused by pituitary microadenomas.
- As postoperative therapy in patients who have undergone biopsy or partial resection of the chordoma or low grade (I or II) chondrosarcoma of the basisphenoid region (skull-base chordoma or chondrosarcoma) or cervical spine.

- As primary therapy for patients with uveal melanoma, with no evidence of metastasis or extrascleral extension, and with tumors up to 22 mm in largest diameter and 14 mm in height.
- Prostate cancer.
- Meningioma.
- Low grade glioma (astrocytoma, grade I-II).
- Glioblastoma multiforme.
- Soft tissue sarcoma (liposarcoma).
- Hodgkin's disease when conventional radiotherapy is contraindicated.
- Acoustic neuromas.
- As post-operative therapy for sacral chordoma under the rare disease policy as described in [Chapter 1, Section 3.1](#).
- Thymoma.

5.0 EXCLUSIONS

5.4 Proton beam therapy radiosurgery/radiotherapy for the treatment of inoperable non-small cell lung cancer is unproven.

Coding information

77520	Proton treatment delivery; simple, without compensation
77522	Proton treatment delivery; simple, with compensation
77523	Proton treatment delivery; intermediate
77525	Proton treatment delivery; complex

References

1. TRICARE Policy Manual Chapter 1, Section 3.1 [TRICARE Manuals - Manual Information \(health.mil\)](#)
2. TRICARE Policy Manual Chapter 5, Section 3.1 [TRICARE Manuals - Manual Information \(health.mil\)](#)
3. MCG Health. Proton Beam Radiotherapy. Ambulatory Care. 28th edition. ACG: A-0389 (AC). Last reviewed: 03/14/2024
4. Uptodate Inc. Management of stage III non-small cell lung cancer. Updated 09/23/2024
5. Centers for Medicare and Medicaid Services. Local Coverage Determination (LCD) L33937. Proton Beam Radiotherapy. Effective Date 12/16/2019

6. Centers for Medicare and Medicaid Services. Local Coverage Article. A57669 Billing and Coding Proton Beam Radiotherapy Effective Date 07/01/2023
7. National Comprehensive Cancer Network (NCCN) Guidelines. Non-Small Cell Lung Cancer. Version 10.2024 – September 23, 2024

Revision History

October 2024 – Updated references

November 2023 – Updated references

Approved by:



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