Clinical Review Criteria Related to Proton Beam Therapy

I. Criteria for Approval

A. Proton beam therapy will be considered medically reasonable and necessary for the following conditions:

1. Unresectable benign or malignant central nervous system tumors, to include but not limited to primary and variant forms of astrocytoma, glioblastoma, medulloblastoma, acoustic neuroma, craniopharyngioma, benign and atypical meningiomas, pineal gland tumors, and arteriovenous malformations
2. Intraocular melanomas
3. Pituitary neoplasms
4. Chordomas and chondrosarcomas
5. Advanced-stage and unresectable malignant lesions of the head and neck
6. Malignant lesions of the paranasal sinus, and other accessory sinuses
7. Unresectable retroperitoneal sarcoma, and

B. In addition to the above criteria, proton beam therapy indications must demonstrate that:

1. The Dose Volume Histogram (DVH) illustrates one or more critical structures or organs protected by the use of proton beam therapy;
2. The standard dose to control or treat the tumor cannot be delivered without exceeding the tolerance of the normal tissue;
3. There is documented clinical rationale that doses generally thought to be above the level otherwise attainable with other radiation methods might improve control rates; or
4. There is documented clinical rationale that higher levels of precision associated with proton beam therapy compared to other radiation treatments are clinically necessary.

C. For the treatment of primary lesions, the intent of treatment must be curative. For the treatment of metastatic lesions, there must be:

1. the expectation of a long-term benefit (greater than 2 years of life expectancy) that could not have been attained with conventional therapy, and
2. the expectation of a complete eradication or improved duration of control of the metastatic lesion that could not have been safely accomplished with conventional
therapy, as evidenced by a dosimetric advantage for proton beam radiotherapy over other forms of radiation therapy.

II. Required Documentation

A. Please submit documentation that proton beam radiotherapy is considered the treatment of choice for the individual patient. Specifically, the record must address the lower risk to normal tissue, the lower risk of disease recurrence, and the advantages of the treatment over IMRT or 3-dimensional conformal radiation.

B. Proton Beam Therapy is non-covered for all other indications including treatment for localized Prostate Cancer: There is as yet no good comparative data to determine whether or not proton beam therapy for prostate cancer is superior, inferior, or equivalent to external beam radiation, IMRT, or brachytherapy in terms of safety or efficacy. Proton beam therapy for metastatic prostate cancer is considered experimental and investigational.

III. CPT/ICD-10/HCPCS Codes

Applicable Coding: Codes may not be all inclusive as the American Medical Association (AMA) code updates may occur more frequently or at different intervals than policy updates. These codes are not intended to be used for coverage determinations.

CPT Codes

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

IV. References

Centers for Medicare and Medicaid Services, Local Coverage Determination (LCD) for PROTON BEAM THERAPY (34634), October 1, 2015, last updated 11/1/2015
(Last Accessed 3/14/2017)

https://effectivehealthcare.ahrq.gov/search-for-guides-reviews-and-reports/?pageaction=displayproduct&productID=2022
(Last Accessed 3/14/2017)
(Last Accessed 3/14/17)

American Society for Radiation Oncology, Aaron Allen MD, Todd Pawlicki, PhD, Luisa Bonilla, MD, M Kara Bucci MD, Bark Buyyounouski MD MS, Deith Cengel MD PhD, Dei Dong PhD, Eugene Fourkal PhD, John Plastaras MD, Torunn Yock MD, An Evaluation of Proton Beam Therapy, June, 2011
(Last Accessed 3/14/17)

V. Summary of Changes

06/29/2017
• Added disclaimer, updated references and last accessed dates

VI. Review Dates

MHI Review Dates: 01/01/2014, 10/23/2014, 10/07/2015, 10/20/2016, 06/29/2017
Medical Guideline Disclaimer
The treating physician or primary care provider must submit to Minuteman the clinical evidence that the patient meets the
criteria for the treatment or surgical procedure. Without this documentation and information, Minuteman will not be able
to properly review the request for prior authorization. The clinical review criteria expressed herein reflects how
Minuteman determines whether certain services or supplies are medically necessary. Minuteman established the clinical
review criteria based upon a review of currently available clinical information (including, without limitation clinical
outcome studies in the peer-reviewed published medical literature, regulatory status of the technology, evidence-based
guidelines of public health and health research agencies, evidence-based guidelines and positions of leading national
health professional organizations, views of physicians practicing in relevant clinical areas, and other relevant
factors). Minuteman expressly reserves the right to revise these criteria as clinical information changes, and welcomes
further relevant information. Each benefit program defines which services are covered. The conclusion that a service or
supply is medically necessary does not constitute a representation or warranty that this service or supply is covered and/or
paid for by Minuteman. If there is a discrepancy between this policy and a member’s benefit program, the benefit program
will govern. In addition, coverage may be mandated by applicable legal requirements of a state, the federal government or
the Centers for Medicare & Medicaid Services (CMS). Minuteman has adopted the herein policy in providing management,
administrative and other services to its members.