MEDICAL POLICY
No. 91127-R8

RADIOSURGERY

Effective Date: November 17, 2016
Review Dates: 1/93, 12/99, 12/01, 12/02, 11/03, 11/04, 1/05, 12/05, 12/06, 7/07, 10/07, 8/08, 8/09, 8/10, 8/11, 8/12, 8/13, 8/14, 8/15, 8/16
Date Of Origin: July 31, 1992
Status: Current

Summary of Changes

Clarifications:
•
Deletions:
•
Additions:
• Pg. 1, Section I, A, c, criteria updated to reflect an Eastern Cooperative Oncology Group (ECOG) grade 0-2 functional status is appropriate for stereotactic radiosurgery for the treatment of initial or recurrent primary brain malignancies that are less than 5 cm in diameter.
• Pg. 4, Special Notes, information related to the Eastern Cooperative Oncology Group (ECOG) performance status scale (Grade 0-5) added.

I. POLICY/Criteria

A. Stereotactic Radiosurgery

1. Stereotactic Radiosurgery by Gamma Knife, CyberKnife or linear accelerator is a covered benefit for any of the following if pre-authorized by Priority Health.
   a. Treatment of patients with symptomatic, small (less than 4 cm) arteriovenous malformations (AVM), aneurysms, and benign tumors (acoustic neuromas, vestibular schwannomas, meningiomas, hemangiomas, pituitary adenomas, craniopharyngiomas, and neoplasms of the pineal gland) if the lesion is unresectable due to its deep intracranial location or if the patient is unable to tolerate conventional operative intervention.
   b. Palliative treatment of initial or recurrent brain metastases, solitary or multiple, in patients with good performance status (Karnofsky > 70).
   c. Treatment of initial or recurrent primary brain malignancies that are less than 5 cm in diameter and in addition, Karnofsky status > 70 or ECOG grade 0-2.
   d. Treatment of nonoperable spinal tumors.
   e. Trigeminal neuralgia that has not responded to other more conservative treatments and contraindications to open procedure are present.
   f. Treatment of pulmonary tumors if one of the following:
      1. Medically inoperable Stage I non-small cell cancer, or
2. Solitary pulmonary metastasis
g. Treatment of inoperable liver tumors if one of the following:
   1. Isolated liver metastasis, or
   2. Hepatocellular cancer
h. Treatment of pancreatic cancer if one of the following:
   1. Primary therapy for locally advanced disease, or
   2. Isolated local recurrence after prior therapy

2. Stereotactic radiosurgery is considered experimental and investigational for treatment of:
   a. Parkinson's disease and epilepsy (except when associated with treatment of AV malformations or brain tumors)
   b. Cancers in extracranial sites, except spine, lung, liver, and pancreas if criteria specified above are met, because definitive conclusions regarding its indications and efficacy have not been demonstrated in large, controlled clinical trials.
   c. cluster headaches
   d. all other indications not outlined in A1 above

B. Proton and neutron beam therapies
1. Proton beam radiotherapy (PBRT) may be medically necessary in any of the following radiosensitive tumors:
   a. Uveal melanomas confined to the globe (i.e. not distant metastases)*
      (the uvea is comprised of the iris, ciliary body, and choroid (the vascular middle coat of the eye)); or
   b. Chordomas or chondrosarcomas arising at the base of the skull or along the axial skeleton without distant metastases*; or
   c. Pituitary neoplasms*; or
   d. Other central nervous system tumors located near vital structures.*
* Proton beam radiotherapy may be used either with or without stereotactic guidance. Stereotactic administration of proton beam radiotherapy is considered medically necessary only for the above-listed lesions that are located intracranially. Stereotactic administration of proton beam radiotherapy for extracranial lesions (i.e., stereotactic body radiosurgery) is not considered medically necessary.

2. Proton beam radiotherapy for treatment of the following conditions is not covered because alternate equally effective forms of therapy which are more cost-effective exist.
   a. intracranial arteriovenous malformations
   b. prostate cancer
3. Proton beam radiotherapy is considered experimental and investigational for all other indications, including but not limited to:
   a. Age-related macular degeneration
   b. Non-uveal melanoma.
   c. Hepatocellular carcinoma
4. Neutron beam therapy is medically necessary for the treatment of any of the following salivary gland tumors:
   a. Locally advanced tumors especially in persons with gross residual disease;
   b. Unresectable tumors
   c. Inoperable tumors.
5. Neutron beam radiotherapy is considered experimental and investigational for all other indications, including but not limited to:
   a. Pancreatic cancer;
   b. Prostate cancer;
   c. Rectal cancer;
   d. Soft tissue sarcomas;
   e. colon cancer
   f. kidney cancer
   g. lung cancer

C. Requests for stereotactic radiosurgery and proton or neutron radiotherapy may be reviewed for coverage determination in either of the following:
1. Recommendation by the National Comprehensive Cancer Network (NCCN) Guidelines for specific diagnosis, or
2. Treatment in a clinical trial if the criteria of the Clinical Trials medical policy are met.

Special Notes:

- The Karnofsky performance status scale is widely used to evaluate the functional status of cancer patients to determine their eligibility for clinical trials and their prognosis.

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<td>70</td>
<td>Cares for self; unable to carry on normal activity or to do active work.</td>
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<tr>
<td>80</td>
<td>Normal activity with effort, some signs or symptoms of disease</td>
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<tr>
<td>90</td>
<td>Able to carry on normal activity; minor signs or symptoms of disease</td>
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The Eastern Cooperative Oncology Group (ECOG) performance status is a scale used to assess how a patient's disease is progressing, assess how the disease affects the daily living abilities of the patient, and determine appropriate treatment and prognosis.

- Grade 0: Fully active, able to carry on all pre-disease performance without restriction
- Grade 1: Restricted in physically strenuous activity but ambulatory and able to carry out work of a light or sedentary nature, e.g., light house work, office work
- Grade 2: Ambulatory and capable of all selfcare but unable to carry out any work activities. Up and about more than 50% of waking hours
- Grade 3: Capable of only limited selfcare, confined to bed or chair more than 50% of waking hours
- Grade 4: Completely disabled. Cannot carry on any selfcare. Totally confined to bed or chair
- Grade 5: Dead

Proton and Neutron Beam Therapies were reviewed at Priority Health’s Technology Assessment Committee (TAC) on December 3, 2004. This policy follows the recommendations of the TAC.

Radiosurgery for extracranial indications was reviewed by Priority Health’s Technology Assessment Committee on September 7, 2007. This policy reflects recommendations of the TAC.

II. MEDICAL NECESSITY REVIEW

- ☒ Required
- □ Not Required
- □ Not Applicable

III. APPLICATION TO PRODUCTS

Coverage is subject to member’s specific benefits. Group specific policy will supersede this policy when applicable.

- **HMO/EPO:** This policy applies to insured HMO/EPO plans.
- **POS:** This policy applies to insured POS plans.
- **PPO:** This policy applies to insured PPO plans. Consult individual plan documents as state mandated benefits may apply. If there is a conflict between this policy and a plan document, the provisions of the plan document will govern.
IV. DESCRIPTION

Stereotactic Radiosurgery, by Gamma Knife, CyberKnife or linear accelerator (LINAC), delivers precisely defined ionizing beams of radiation.

Stereotactic guidance may also be used to deliver proton and/or neutron beam radiotherapy. Proton and Neutron Beam Therapies have been investigated for numerous conditions.

V. CODING INFORMATION

ICD-10 codes:
Not specified – see criteria

CPT/HCPCS codes:
61796 Stereotactic radiosurgery (particle beam, gamma ray, or linear accelerator); 1 simple cranial lesion
61797 Stereotactic radiosurgery (particle beam, gamma ray, or linear accelerator); each additional cranial lesion, simple (List separately in addition to code for primary procedure)
61798 Stereotactic radiosurgery (particle beam, gamma ray, or linear accelerator); 1 complex cranial lesion
61799 Stereotactic radiosurgery (particle beam, gamma ray, or linear accelerator); each additional cranial lesion, complex (List separately in addition to code for primary procedure)
61800 Application of stereotactic headframe for stereotactic radiosurgery (List separately in addition to code for primary procedure)
63620 Stereotactic radiosurgery (particle beam, gamma ray, or linear accelerator); 1 spinal lesion
63621 Stereotactic radiosurgery (particle beam, gamma ray, or linear accelerator); each additional spinal lesion (List separately in addition to code for primary procedure)

77371 Radiation treatment delivery, stereotactic radiosurgery (SRS), complete course of treatment of cerebral lesion(s) consisting of 1 session; multi-source Cobalt 60 based
77372 Radiation treatment delivery, stereotactic radiosurgery (SRS), complete course of treatment of cerebral lesion(s) consisting of 1 session; linear accelerator based
77373 Stereotactic body radiation therapy, treatment delivery, per fraction to 1 or more lesions, including image guidance, entire course not to exceed 5 fractions

77422 High energy neutron radiation treatment delivery; single treatment area using a single port or parallel-opposed ports with no blocks or simple blocking
77423 High energy neutron radiation treatment delivery; 1 or more isocenter(s) with coplanar or non-coplanar geometry with blocking and/or wedge, and/or compensator(s)

77432 Stereotactic radiation treatment management of cerebral lesion(s) (complete course of treatment consisting of one session)
77435 Stereotactic body radiation therapy, treatment management, per treatment course, to one or more lesions, including image guidance, entire course not to exceed 5 fractions

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

Facility billing only:
Revenue code:
0333 Radiation therapy (billed with 70,000 codes listed above)

HCPCS codes:
G0339 Image guided robotic linear accelerator base stereotactic radiosurgery, complete course of therapy in one session, or first session of fractionated treatment
G0340 Image guided robotic linear accelerator based stereotactic radiosurgery, delivery including collimator changes and custom plugging, fractionated treatment, all lesions, per session, second through fifth sessions, maximum five sessions per course of treatment

These services are not covered:
S8030 Scleral application of tantalum ring(s) for localization of lesions for proton beam therapy
VI. REFERENCES:


Proton Beam and Neutron Beam Radiotherapy, Aetna Clinical Policy Bulletin

Stereotactic Radiosurgery (SRS) and Stereotactic Body Radiotherapy (SBRT),
Anthem Blue Cross Medical Policy

Proton Beam Radiation Therapy, Anthem Blue Cross Medical Policy

Oken MM, Creech RH, Tormey DC et-al. Toxicity and response criteria of the