Medical Affairs Policy

Service: Stereotactic Radiotherapy- SRT [Stereotactic Radiosurgery (SRS), Stereotactic Body Radiation Therapy (SBRT), CyberKnife, Gamma Knife, Peacock, Trilogy, X-Knife, LINAC (linear accelerator), Novalis ExacTrac Robotic system] PUM 250-0023

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<tr>
<th>Medical Policy Committee Approval</th>
<th>09/09/16</th>
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<td>Effective Date</td>
<td>01/01/17</td>
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<tr>
<td>Prior Authorization Needed</td>
<td>Yes</td>
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Disclaimer: This policy is for informational purposes only and does not constitute medical advice, plan authorization, an explanation of benefits, or a guarantee of payment. Benefit plans vary in coverage and some plans may not provide coverage for all services listed in this policy. Coverage decisions are subject to all terms and conditions of the applicable benefit plan, including specific exclusions and limitations, and to applicable state and federal law. Some benefit plans administered by the organization may not utilize Medical Affairs medical policy in all their coverage determinations. Contact customer services as listed on the member card for specific plan, benefit, and network status information.

Medical policies are based on constantly changing medical science and are reviewed annually and subject to change. The organization uses tools developed by third parties, such as the evidence-based clinical guidelines developed by MCG to assist in administering health benefits. This medical policy and MCG guidelines are intended to be used in conjunction with the independent professional medical judgment of a qualified health care provider. To obtain additional information about MCG, email medical.policies@wpsic.com.

Description:
Stereotactic radiotherapy (SRT) is a form of radiation therapy (RT) that can deliver focused doses of radiation more precisely and at higher doses, targeting a lesion from several different directions, while minimizing the amount of damage to adjacent anatomical structures. It typically involves a single, or very few, high dose radiation treatments, as opposed to the multiple sessions employed in fractionated, conventional RT. Fractionated SRT is utilized when even a very accurate high dose single fraction of stereotactic radiosurgery would not be tolerated. SRT is increasingly being used in treatment of oligometastatic malignancy. Oligometastatic disease describes the occasional circumstance when there are only a few areas of metastatic spread that, due to slow spread or localized symptoms, would benefit from localized treatment. Neuroendocrine tumors spread to the liver are an example. SRT has been used in individuals with already decreased organ function since the use of SRT is likely to preserve organ function. Stereotactic radiosurgery (SRS) typically refers to the use of SRT for intracranial treatments, whereas the term stereotactic body radiation therapy (SBRT) is typically used for the treatment of extracranial sites such as lung, spine, or liver.

SRS is commonly used for tumors and vascular abnormalities of the brain, and has been shown to be effective for tumors that cannot be treated with conventional treatments, such as chemotherapy, embolization, standard radiation therapy, or surgical resection. SRS has also been used for the management of the symptoms of trigeminal neuralgia when other treatments have failed.
A dose escalation study conducted by the Radiation Therapy Oncology Group (RTOG) defined the maximally tolerated SRS dose in the treatment of cerebral metastasis as a function of tumor size. SRS was not recommended for lesions >4 cm because adequate control could not be achieved without an unacceptable level of radiation toxicity to surrounding normal tissue.

SBRT is being considered for many other conditions as an alternative to conventional treatments. SBRT may involve smaller radiation doses given more frequently than SRS.

**Indications of Coverage:**

**A. SRS** is considered medically necessary for the following conditions:

1. Intracranial arteriovenous malformations (AVMs) less than three centimeters in diameter, when surgery is not indicated (e.g. deep intracranial location, inability of the individual to tolerate surgical intervention, surgical intervention is contraindicated)

2. Intracranial metastatic brain tumors: A maximum of 4 lesions and no lesion ≥4 cm, and stable extracranial disease

3. Spinal metastases which are not amenable to surgery or conventional radiation, and with no evidence of spinal cord compression or spinal instability

4. Trigeminal neuralgia that has not responded to conservative treatment and the SRS has been recommended in consultation with the neurologist. Conservative treatment typically includes trials of at least two different medications (such as anticonvulsant medications, carbamazepine, oxcarbazepine, baclofen, lamotrigine, pimozide)

5. For treatment of any of the following: Primary brain tumors not amenable to surgical resection: Vestibular Schwannoma (acoustic neuroma), meningioma, pituitary adenoma, craniopharyngeoma, glomus jugulare- paraganglioma, chordoma

6. For treatment of cavernous malformations (hemangiomas) if associated with intractable epilepsy or recurrent hemorrhage or progressive neurologic deterioration

**B. For SBRT indications,** refer to MCG Ambulatory Care Guideline for Stereotactic Body Radiotherapy
**Limitations of Coverage:**

A. Review contract and endorsements for exclusions and prior authorization or benefit requirements.

B. If used for a condition/diagnosis other than is listed in the Indications of Coverage, deny as experimental, investigational, and unproven to affect health outcomes.

C. If used for a condition/diagnosis that is listed in the Indications of Coverage, but the criteria are not met, deny as not medically necessary.

D. SRS is considered investigational for any of the following conditions as there is insufficient evidence in the published, peer-reviewed scientific literature of randomized controlled trials addressing the efficacy, superiority over other treatments, or long term outcomes in:

   1. Central neurocytoma
   2. Cluster Headache
   3. Epilepsy (except when associated with A/V malformation, cavernous hemangioma, brain tumor, or when the only other option is temporal lobectomy)
   4. Essential Tremor
   5. Intracranial ependymoma
   6. Malignant Glioma
   7. Obsessive Compulsive Disorder (OCD)
   8. Parkinson’s disease
   9. Pineal Tumor

E. SBRT is considered investigational for any of the following conditions as there is insufficient evidence in the published, peer-reviewed scientific literature of randomized controlled trials demonstrating superiority over other treatments, or long term outcomes in:

   1. Adrenal metastasis
   2. Gynecologic cancer
3. Head and Neck cancer

4. Pancreatic Cancer

5. Renal Cell carcinoma

**Documentation Required:**

- Office notes
- Procedure report
- Imaging reports

**References:**


30. MCG 20th Ed. ACG: A-0694 (AC) Stereotactic Body Radiotherapy

31. MCG 20th Ed. ACG:A-0423 (AC) Stereotactic Radiosurgery


41. Hayes Robotically Assisted Stereotactic Radiosurgery (SRS) for Spinal and Extracranial Head and Neck Indications

42. Hayes Stereotactic Radiosurgery for Trigeminal Neuralgia and Movement Disorders Publication Date February 26, 2015, Annual review Feb 17, 2016

**Review History:**

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<td>Arise/WPS Policy Committee Approval</td>
<td>06/13/14, 09/11/15, 09/16/16</td>
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- Note: For review/revision history prior to 2014 see previous Medical Policy or Coverage Policy Bulletin

*Approved by the Medical Director*