

MEDICAL POLICY

MEDICAL POLICY DETAILS	
Medical Policy Title	Stereotactic Radiosurgery and Stereotactic Body Radiation Therapy
Policy Number	6.01.12
Category	Technology Assessment
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Product Disclaimer	<ul style="list-style-type: none"> If a product excludes coverage for a service, it is not covered, and medical policy criteria do not apply. If a commercial product (including an Essential Plan or Child Health Plus product), medical policy criteria apply to the benefit. If a Medicaid product covers a specific service, and there are no New York State Medicaid guidelines (eMedNY) criteria, medical policy criteria apply to the benefit. If a Medicare product (including Medicare HMO-Dual Special Needs Program (DSNP) product) covers a specific service, and there is no national or local Medicare coverage decision for the service, medical policy criteria apply to the benefit. If a Medicare HMO-Dual Special Needs Program (DSNP) product DOES NOT cover a specific service please refer to the Medicaid Product coverage line.

POLICY STATEMENT

Based upon our criteria and assessment of the peer-reviewed literature:

- I. *Stereotactic radiosurgery* (SRS) has been medically proven to be effective and, therefore, is considered **medically appropriate** for the following indications:
 - A. Benign conditions:
 1. Arteriovenous malformations;
 2. Acoustic neuromas;
 3. Pituitary adenomas;
 4. Nonresectable, residual, or recurrent meningiomas;
 5. Craniopharyngiomas;
 6. Glomus tumors;
 7. Hemangioblastoma;
 8. Pineocytoma;
 9. Schwannoma;
 10. Cavernous malformations.
 - B. Primary tumors of the brain and spinal cord *that have been previously irradiated*.
 - C. Primary spinal tumor with compression or intractable pain.
 - D. Reirradiation of recurrent inoperable malignant gliomas in individuals with an Eastern Cooperative Oncology Group (ECOG) performance status of 0-2.
 - E. Brain metastases under the following conditions:
 1. Intact brain metastases with no history of surgical intervention

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- a. All lesions can be encompassed in a single treatment plan; and
- b. The patient has a ECOG performance status of 0-2; and
- c. Systemic disease is limited and under control or good options for systemic treatment are available; and
- d. There is no leptomeningeal disease; or the primary histology is not germ cell, small cell, or lymphoma; and
- e. The total volume of treated lesions should be considered safe to deliver SRS in alignment with current guidelines from the American Society for Radiation Oncology (ASTRO); and
- f. The total number of treated brain metastases is less than or equal to four; and
 - i. Diameter for each lesion is less than four cm; or
 - ii. Diameter for each lesion is between four cm and less than or equal to six cm when:
 1. Individual is not a candidate for surgery; and
 2. There is no presence of a mass effect; and
 3. Documentation is provided demonstrating neurosurgery input;
- OR
- g. The total number of treated brain metastases is greater than or equal to five and less than or equal to ten when:
 - i. Individual is not a candidate for surgery; and
 - ii. There is no presence of a mass effect; and
 - iii. Documentation is provided demonstrating neurosurgery input
2. Prior treatment with whole brain irradiation (WBRT):
 - a. total number of brain metastases is less than or equal to four; and
 - b. The patient has a ECOG performance status of 0-2; and
 - c. Systemic disease is under control; and
 - d. The patient's life expectancy is greater than three months.
3. Prior treatment with SRS:
 - a. total number of brain metastases is less than or equal to four; and
 - b. The patient has a ECOG performance status of 0-2; and
 - c. The patient's systemic disease is under control; and
 - d. New lesions are present (no lesion is greater than four cm; and
 - e. The patient has not been treated with more than two episodes of radiosurgery in the past nine months.
4. Recurrent brain lesions and no prior treatment with WBRT:
 - a. Recurrence involves one to four lesions; and
 - b. More than six months have elapsed since RT; and
 - c. The patient has a ECOG performance status of 0-2; and
 - d. Systemic disease is under control.
5. Post-operative SRS after surgical debulking:
 - a. The patient has a combination of up to four resected and unresected lesions, each of which, individually, is less than four cm in size.
- F. For indications that are refractory to medical management and/or invasive neurosurgical treatment:
 1. Trigeminal neuralgia;
 2. Movement disorders (e.g., epilepsy, Parkinson's disease, essential tremor, or familial tremor classifications with major systemic disease).
- II. *Stereotactic body radiation therapy (SBRT)* has been medically proven to be effective and, therefore, is considered **medically appropriate** for the following indications:
 - A. Recurrent or residual nasopharyngeal carcinoma at primary site when radiation therapy treatments such as three-dimensional conformal or Intensity-modulated radiation therapy (IMRT) cannot be utilized;
 - B. Spinal or vertebral body tumors (metastatic or primary) in patients who have received prior radiation therapy;
 - C. Inoperable stage I or stage II non-small cell lung cancer (NSCLC);
 - D. Pancreatic cancer;

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- a. Locally advanced disease in individuals who have an ECOG status of 0-1; and
 - i. are not candidates for induction chemotherapy or combination systemic treatment and are without systemic metastases; or
 - ii. with disease progression where chemoradiation was not previously given and primary site is the sole site of progression; or
 - iii. presents with poorly controlled pain or local invasion with bleeding
- b. Preoperative (neoadjuvant) treatment of borderline resectable cases}, following chemotherapy, and restaging in which there is no evidence of tumor progression;

Note, SBRT is considered **not medically necessary** for planned neoadjuvant treatment when the primary tumor is otherwise fully resectable, postoperative, or palliative situations.

SBRT should not be used if direct invasion of the bowel or stomach is observed on imaging.

- E. Primary liver cancer (Hepatocellular Carcinoma [HCC]) in the definitive setting to concurrently treat one or more tumors, when there is evidence of the ability to protect an adequate volume of uninvolved liver.
- F. *Intrahepatic* bile duct cancer (cholangiocarcinoma) when unresectable, and localized in the definitive treatment setting.
- G. Any of the following neoplasms presenting with one to three metastases in the synchronous setting when local control is expected, and treatment of the metastases may result in an increased disease-free interval and possible survival:
 - 1. For an individual with non-small cell lung cancer who has had or will undergo curative treatment of the primary tumor (based on T and N stage)
 - 2. For an individual with colorectal cancer who:
 - a. has had or will undergo curative treatment of the primary tumor; and
 - b. whose metastases are in the lung or liver; and
 - c. for whom surgical resection is not possible.
- H. Any of the following neoplasms where the primary tumor was previously controlled and metachronous metastases have presented, under the following circumstances:
 - 1. Clinical presentation of one to three metastases to the adrenal gland, lung, liver, or bone when the following criteria are met:
 - a. the histology is non-small cell lung, colon, breast, sarcoma, renal cell or melanoma; and
 - b. disease free interval of one year or greater from the initial diagnosis; and
 - c. the primary tumor received curative therapy and is controlled; and
 - d. there is no prior evidence of metastatic disease (cranial or extracranial)

Note, all metastatic lesions present on imaging will be treated concurrently in a single episode.

- 2. SBRT to three or more sites other than those indications listed above is considered **experimental/investigational**.
- 3. Based upon our criteria and assessment of the peer-reviewed literature, SBRT has not been medically proven to be effective and, therefore, is considered **investigational** to induce the abscopal effect.
- 4. Based upon our criteria and assessment of the peer-reviewed literature, SBRT does not improve patient outcomes for individuals with oligoprogression (progression of a limited number of metastatic sites while other metastatic disease sites remain controlled), and, therefore, is considered **not medically necessary**.
- I. Prostate cancer when the disease is clinically localized and when used as definitive treatment when not treating pelvic lymph nodes.
 - a. Based upon our criteria and assessment of the peer-reviewed literature, biodegradable perirectal spacer (e.g., SpaceOar system) use in the setting of localized prostate cancer is **medically appropriate**.

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- J. Recurrent soft tissue sarcoma that is within a previously irradiated area.
 - K. Head and neck cancer, as retreatment of inpatients who have no evidence of metastatic disease.
 - L. Cervical cancer, when there is a history of previous radiation to the same or abutting region and inability to deliver therapeutic doses of radiation with other techniques.
 - M. Stage I or node-negative stage IIA limited small cell lung cancer.
- III. Based upon our criteria and assessment of the peer-reviewed literature, stereotactic body radiation therapy as an alternative to brachytherapy has not been medically proven to be effective and, therefore, is considered **investigational** for the definitive treatment of cervical cancer.
- IV. Based upon our criteria and assessment of the peer-reviewed literature, stereotactic body radiation therapy has not been medically proven to be effective and, therefore, is considered **not medically necessary** for *extrahepatic* bile duct cancer (cholangiocarcinoma), or gall bladder cancer.
- V. Based upon our criteria and assessment of the peer-reviewed literature, stereotactic radiosurgery does not improve patient outcomes and, therefore, is considered **not medically necessary** for the treatment of chronic pain.
- VI. Based upon our criteria and assessment of the peer-reviewed literature, stereotactic body radiation therapy has not been medically proven to be effective and, therefore, is considered **investigational** as a boost for prostate cancer.
- VII. Based upon our criteria and assessment of the peer-reviewed literature, stereotactic body radiation has not been medically proven to be effective and, therefore is considered **not medically necessary** in the adjuvant (post-operative) curative treatment of primary adrenocortical carcinoma.

Refer to Corporate Medical Policy #6.01.11 Proton Beam Radiation.

Refer to Corporate Medical Policy #6.01.24 Intensity Modulated Radiation Therapy (IMRT).

Refer to Corporate Medical Policy #7.01.23 Deep Brain Stimulation.

Refer to Corporate Medical Policy #11.01.03 Experimental or Investigational Services.

POLICY GUIDELINE

SBRT, as a complete course of therapy, must be completed in five fractions or less within a single episode of care.

DESCRIPTION

Stereotactic radiosurgery (SRS). SRS or fractionated radiosurgery is a method of delivering high doses of ionizing radiation to small intracranial targets. This technique differs from conventional radiotherapy, which involves exposing large areas of tissue to relatively broad fields of radiation over a number of sessions. SRS entails delivering highly focused convergent beams in a single session so that only the desired target is radiated, sparing adjacent structures.

Stereotactic body radiation therapy (SBRT). As stated in the guideline developed by the American College of Radiology (ACR) and the American Society for Radiation Oncology (ASTRO) (2019), stereotactic body radiation therapy (SBRT) is an external beam radiation therapy method used to deliver, very precisely, a high dose of radiation to an extracranial target within the body, in five fractions or less. Specialized treatment planning results in high target dose and steep dose gradients beyond the target. The ability to deliver a single or a few fractions of high-dose ionizing radiation with high targeting accuracy and rapid dose falloff gradients encompassing tumors within a patient provides the basis for the development of SBRT. SBRT can be applied using noninvasive or minimally invasive stereotactic localization and radiation delivery techniques. It requires significantly improved delivery precision over that required for conventional radiotherapy. Specialized imaging techniques may be required, either to limit or to compensate for target movement during treatment planning and delivery.

Perirectal Hydrogel Spacer Use. SpaceOAR (Spacing Organs At Risk (OAR)) (Augmenix, Inc, Waltham, MA), is one example of a polyethylene glycol-based hydrogel spacer. It received FDA approval in 2015. The spacer is injected into the

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perirectal space, temporarily positioning the rectum further away from the radiation field reducing the dose of radiation outside of the designated treatment area, and proposes to improve patient's quality of life by reducing potential toxicities. The hydrogel remains in place for three months after which, it is then absorbed, and excreted through the patient's urine.

ECOG Performance Status

Performance Status	Description
0	Fully active; no performance restrictions
1	Strenuous physical activity restricted; fully ambulatory and able to carry out light work
2	Capable of all self-care but unable to carry out any work activities Up and about > 50% of waking hours.
3	Capable of only limited self-care; confined to bed or chair >50% of waking hours
4	Completely disabled; cannot carry out any self-care; totally confined to bed or chair

RATIONALE

Radiosurgery has been known to improve health outcomes by providing local tumor control and increasing survival rates, but can be associated with complications such as radionecrosis or CNS toxicity. Guidelines from The American Society for Radiation Oncology (ASTRO) released in 2022 provided strong recommendations for safe treatment of brain metastases using SRS, including the number and size of lesions. The consensus is that up to four intact brain metastases can be safely treated in patients with reasonable performance status. The guidelines state that optimal treatment for patients with five or more metastases remains controversial due to the lack of published prospectively randomized data, and therefore, conditionally recommends SRS to patients with five to ten intact brain metastases who have a ECOG performance status of two or better. Treatment of lesions that measure less than 2 cm in diameter comes with a strong recommendation for SRS. Lesions that are >2 cm and ≤ 3 cm have a conditional recommendation for single-fraction SRS, patients with lesions ≥ 3 cm to ≤ 4 cm are conditionally recommended for multi-fraction SRS. The task force identifies that for tumors exerting mass effect and/or are ≥ 4 cm in size, that multidisciplinary discussion with neurosurgery to consider surgical resection is suggested, and that due to limited evidence, SRS for tumor size greater than 6 cm is discouraged.

NCCN guidelines (v.1.2022) for principles of central nervous system cancers includes guidelines addressing the treatment of both extensive and limited brain metastases and agree with ASTROs update that SRS is generally preferred over WBRT for limited brain metastases.

Literature regarding SRS as first-line treatment of meningioma consists of prospective and retrospective case series, which conclude that SRS provides high rates of tumor growth control or regression in patients with benign meningiomas with low-risk, and in patients with cavernous sinus meningioma.

SRS performed on inoperable arteriovenous malformations (AVM's) with diameters less than 4 cm have been found to have obliteration rates up to 94%.

SRS for trigeminal neuralgia refractory to medical management has similar outcomes compared to alternative treatments (e.g., microvascular decompression), is the least invasive non-pharmacologic treatment, and is associated with less complications (facial paresis, pain recurrence) than alternative treatments. Outcomes of gamma radiosurgery for acoustic neuroma include local tumor control, preservation of hearing and facial nerve function.

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SRS for the treatment of acoustic neuroma increases the preservation of facial nerve function and decreases hearing loss associated with alternative treatments. A single-institution study reported outcomes of single fractions versus fractionated LINAC-based SRS in 129 patients with acoustic neuromas. With an average follow-up of 33 months, there was no difference in outcome in terms of local tumor control, facial nerve preservation, and hearing preservation.

Gamma knife radiosurgery is a form of SRS. Small case series examined the role of gamma knife radiosurgery in the treatment of refractory movement disorders, although radiofrequency ablation or deep brain stimulation would be considered the gold standard therapies for this indication. The ordering provider must certify that the usual and customary treatments outlined above would not be successful in managing the member's condition.

Several small prospective studies of SRS of spinal cord lesions, metastatic and primary, conclude that radiation-induced toxicity is minimal with axial and radicular pain improvement as high as 96%. Major benefits are relatively short treatment time in an outpatient setting combined with potentially better local control of the tumor with minimal risk of side effects. Stereotactic technique also allows for the treatment of lesions previously irradiated with conventional external beam irradiation.

Literature has increased regarding stereotactic radiosurgery/radiotherapy of other extracranial sites. Numerous studies address SBRT of the lung and liver (for both primary and metastatic lesions), renal cell carcinoma (for both primary and metastatic lesions), pancreas, and adrenal glands—These studies are generally of small sample size but show that the control rate is similar to the control rate for brain metastases (over 90%).

Surgical resection is currently the only known treatment with a potential for curing pancreatic adenocarcinoma, with a majority of patients presenting with surgically unresectable disease. The median overall survival for patients with locally advanced disease is only 12 months. The resectability of a pancreatic tumor typically depends on its position within the pancreas, and its location relative to the surrounding blood vessels. The role of radiation therapy in this patient population is evolving. SBRT may allow for a shorter time frame from the start of radiation therapy to the time of resection.

NCCN guidelines (v4.2022) for principles of radiation therapy for pancreatic adenocarcinoma state that “the role of upfront chemoradiation in the setting of locally advanced pancreatic cancer is still undefined. If patients present with poorly controlled pain or local invasion with bleeding, then starting with upfront chemoradiation therapy or SBRT is an option”. Chemoradiation can also be given as second-line therapy in patients with locally advanced disease, if chemoradiation was not previously given and if the primary site is the sole site of progression.

Tchelebi, et al (2016) conducted a systematic review and meta-analysis comparing rates of overall survival and toxicity in SBRT and conventionally fractionated radiation therapy with concurrent chemotherapy. The analysis represented 1147 patients with N0-1 M0 locally advanced pancreatic cancer. The authors compared one- and two-year overall survival and acute and late grade 3/4 toxicity using three different methods of assessment, including rates, random effects estimates and a sensitivity analysis which excluded three SBRT studies that had utilized unusually high doses of radiation that would not be considered in current practice. Overall, the analysis demonstrated improved overall survival and reduced acute and late grade 3/4 toxicities with SBRT vs chemoradiation utilizing all three methods of analysis. Authors concluded that SBRT may offer modest improvements in overall survival compared with conventional fractionation and concurrent chemotherapy.

Oligometastatic disease has differing definitions in the literature. Lievens, et al. (2020) summarized the European Society for Radiotherapy and Oncology (ESTRO)-ASTRO consensus document to define oligometastatic disease from a radiation oncology perspective. Based on available data, the ESTRO-ASTRO established definition should be “1-5 metastatic lesions, a controlled primary tumor being optional, but where all metastatic sites must be safely treatable.” The consensus is that most evidence derives from retrospective, single-center case series, with significant heterogeneity in both patient inclusion criteria and the definition of oligometastatic disease (number of lesions, size of lesions), further studies that are randomized and allow for cross-trial comparisons are needed. Oligoprogression is a conceptual state of oligometastatic disease and is the progression of a limited number of metastatic sites while other metastatic disease sites remain controlled. Studies regarding oligoprogression have been small in sample size, making it difficult to draw conclusions about appropriate treatment goals and patient types, and therefore, the routine use of SBRT in this setting is not supported.

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Abscopal effects are reported to be rare immune-response phenomenon in which treatment of one tumor with radiation therapy typically combined with immunotherapy, may cause the regression of other, untreated tumors. Abscopal responses have been documented in case series of patients with melanoma, breast, lung, and liver cancers however, the mechanism of which to induce this reported effect is not clearly understood, nor is the type of patient who is more likely to respond. The evidence is not sufficient to determine that utilizing SBRT to induce an abscopal effect, results in a meaningful improvement in the net health outcome.

Literature is active with respect to the use of SBRT for treatment of prostate cancer and the National Comprehensive Cancer Network (NCCN) guidelines consider it an acceptable regimen, even for high-risk disease, when patients have received prior radiotherapy. Studies are small but improvements in quality of life and mild (grade I-II) toxicities have been reported. SBRT using a hypofractionation regimen for treatment of prostate cancer has been suggested as a more cost-effective alternative to IMRT because the treatment time is shorter, it utilizes resources more effectively, and the regimen is more convenient to the patient with less time away from work, and savings in transportation and housing if the treatment center is located away from the patient's home.

Hypofractionation, however, has been shown to increase the risk of acute moderate gastrointestinal (GI) toxicity when compared to conventional fractionation. ASTRO (2019) states that the radiation oncologist, in collaboration with the qualified medical physicist, will determine the need to utilize devices to stabilize or pull away organs at risk from inadvertently moving into the field of treatment, and includes spacers as an example.

For individuals who have prostate cancer and are undergoing radiation therapy who receive a hydrogel spacer, the evidence includes a pivotal RCT with a 3-year follow up, observational studies, and systematic reviews. Mariados and colleagues (2015) carried out a manufacturer sponsored, prospective, multi-center, single-blind study, evaluating the percent of the rectal volume receiving 70 Gy in dose planning studies of 222 men randomized 2:1 to either a spacer or control group. All men received IMRT (79.2 Gy in 1.8-Gy fractions) to the prostate. Those with spacer use experienced a lower percentage of rectal volume receiving 70 Gy (3.3% vs. 11.7%). They evaluated the effectiveness of the SpaceOAR system in reducing adverse gastrointestinal events with IMRT, and demonstrated a significant reduction in mean rectal V70 with the device in place. There were no reports of device-related adverse events, rectal perforations, serious bleeding, or infections, and acute rectal adverse events were similar between the two groups, however there was significantly less pain experience reported by the treatment group. A reduction in late rectal toxicity (three to 15 months after RT) has been observed, and no patients treated with the spacer experienced greater than grade 1 toxicity. The 3-year follow up study (Hamstra et al. 2017) involved 63% of the original participants (94 SpaceOAR subjects and 46 control group) and demonstrated a reduction of Grade ≥ 1 adverse events in the treatment group (2% vs. 9%, $p<.03$).

NCCN guidelines (v4.2022) for principles of radiation therapy for prostate cancer state that biocompatible and biodegradable perirectal spacer materials may be implanted between the prostate and rectum in patients undergoing external radiotherapy with organ-confined prostate cancer in order to displace the rectum from high radiation dose regions. A randomized phase III trial demonstrated reduced rectal bleeding in patients undergoing the procedure, compared to controls. The guidelines state, "Overall, the panel believes that biocompatible and biodegradable perirectal spacer materials may be implanted between the prostate and rectum in patients undergoing external radiotherapy with organ-confined prostate cancer in order to displace the rectum from high radiation dose regions." Patients with obvious rectal invasion or visible T3 or posterior extension should not undergo perirectal spacer implantation.

Due to a lack of clinical trials, there is insufficient evidence to permit conclusions about health outcomes for the treatment of chronic pain.

The NCCN SCLC Panel (2022) recommends SBRT followed by systemic therapy as an option for select patients with clinical stage I to IIA (T1-2 N0) small cell lung cancer who are medically inoperable or decline surgery (category 2A). This decision was based on a study published in 2018 (Shioyama, et al) that retrospectively analyzed 43 patients diagnosed with small-cell lung cancer, treated with SBRT at 11 Japanese institutions. The two-year overall survival was 72.3%, progression-free survival was 44.6%, and distant metastasis free survival rates were 47.2%. Of the patients selected for inclusion, 80% were inoperable. The number of distant metastases was high at 47%, authors noting that only a small number of patients received chemotherapy using standard regimens, but their progression free survival was higher

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than those treated with SBRT alone (70.0% vs. 44.6%). 2-year local control was 80.2% signaling effectiveness in the stage I population.

The role of radiotherapy in the adjuvant treatment of adrenocortical carcinoma has been controversial. The literature consists of small cohort studies and case series. The evidence is insufficient to determine that treatment with SBRT in this population results in meaningful improvement in the net health outcome. Furthermore, the NCCN guidelines for neuroendocrine and adrenal tumors (v1.2022) do not cite SBRT as a treatment recommendation for this indication.

CODES

- *Eligibility for reimbursement is based upon the benefits set forth in the member's subscriber contract.*
- ***CODES MAY NOT BE COVERED UNDER ALL CIRCUMSTANCES. PLEASE READ THE POLICY AND GUIDELINES STATEMENTS CAREFULLY.***
- *Codes may not be all inclusive as the AMA and CMS code updates may occur more frequently than policy updates.*
- *Code Key: Experimental/Investigational = (E/I), Not medically necessary/ appropriate = (NMN).*

CPT Codes

Code	Description
31626	Bronchoscopy, rigid or flexible, including fluoroscopic guidance, when performed; with placement of fiducial markers, single or multiple
31627	Bronchoscopy, rigid or flexible, including fluoroscopic guidance, when performed; with computer-assisted, image-guided navigation (List separately in addition to code for primary procedure(s))
32553	Placement of interstitial device(s) for radiation therapy guidance (e.g., fiducial markers, dosimeter), percutaneous, intra-thoracic, single or multiple
49411	Placement of interstitial device(s) for radiation therapy guidance (e.g., fiducial markers, dosimeter), percutaneous, intra-abdominal, intra-pelvic (except prostate), and/or retroperitoneum, single or multiple
49412	Placement of interstitial device(s) for radiation therapy guidance (e.g., fiducial markers, dosimeter), open, intra-abdominal, intrapelvic, and/or retroperitoneum, including image guidance, if performed, single or multiple (List separately in addition to code for primary procedure)
55874	Transperineal placement of biodegradable material, peri-prostatic, single or multiple injection(s), including image guidance, when performed
61796	Stereotactic radiosurgery (particle beam, gamma ray, or linear accelerator); one 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); one 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)

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Code	Description
63620	Stereotactic radiosurgery (particle beam, gamma ray, or linear accelerator); one 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 cranial lesion(s), consisting of one session; multi-source Cobalt 60 based
77372	Radiation treatment delivery, stereotactic radiosurgery (SRS), complete course of treatment of cranial lesion(s) consisting of 1 session; linear accelerator based
77373	Stereotactic body radiation therapy, treatment delivery, per fraction to one or more lesions, including image guidance, entire course not to exceed five fractions
77432	Stereotactic radiation treatment management of cranial lesion(s) (complete course of treatment consisting of one session)
77435	Stereotactic body radiation therapy, treatment management, pretreatment course, to one or more lesions, including image guidance, entire course not to exceed five fractions

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Code	Description
G0339	Image guided robotic linear accelerator-based stereotactic radiosurgery, complete course of therapy in one session, or first session of fractionated treatment. Medically appropriate for the diagnosis codes listed below
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. Medically appropriate for the diagnosis codes listed below

ICD10 Codes

Code	Description
C22.0-C22.9	Malignant neoplasm of liver and intrahepatic bile ducts (code range)
C34.00-C34.92	Malignant neoplasm of bronchus and lung (code range)
C41.0	Malignant neoplasm of bones of skull and face
C41.2	Malignant neoplasm of vertebral column
C61	Malignant neoplasm of prostate
C64.1-C64.9	Malignant neoplasm of kidney, except renal pelvis (code range)
C65.1-C65.9	Malignant neoplasm of renal pelvis (code range)
C70.0-C70.9	Malignant neoplasm of meninges (code range)
C71.0-C71.9	Malignant neoplasm of brain (code range)
C72.0-C72.1	Malignant neoplasm of spinal cord and cauda equina (code range)

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Code	Description
C75.1-C75.3	Malignant neoplasm of other endocrine glands and related structures (code range)
C78.7	Secondary malignant neoplasm of liver and intrahepatic bile duct
C79.00-C79.02	Secondary malignant neoplasm of kidney and renal pelvis (code range)
C79.31	Secondary malignant neoplasm of brain
D01.5	Carcinoma in situ of liver, gallbladder and bile ducts
D18.02	Hemangioma of intracranial structures
D32.0-D32.9	Benign neoplasm of meninges (code range)
D33.0-D33.4	Benign neoplasm of brain and other parts of central nervous system (code range)
D35.0-D35.4	Benign neoplasm of other and unspecified endocrine glands (code range)
D37.6	Neoplasm of uncertain behavior of liver, gallbladder and bile ducts
D42.0-D42.9	Neoplasm of uncertain behavior of meninges (code range)
D43.0-D43.4	Neoplasm of uncertain behavior of brain and central nervous system (code range)
D44.3-D44.5	Neoplasm of uncertain behavior of pituitary gland and craniopharyngeal duct and pineal gland (code range)
G50.0	Trigeminal neuralgia
Q04.9	Congenital malformation of brain, unspecified
Q06.9	Congenital malformation of spinal cord, unspecified
Q07.9	Congenital malformation of nervous system, unspecified
Q27.9	Congenital malformation of peripheral vascular system, unspecified
Q28.2	Arteriovenous malformation of cerebral vessels
Q28.3	Other malformations of cerebral vessels

REFERENCES

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*Key Article

KEY WORDS

CyberKnife, Fractionated stereotactic radiosurgery, Gamma knife, Linac, Linear accelerator, Stereotactic radiotherapy, Space Oar, Perirectal hydrogel spacer.

CMS COVERAGE FOR MEDICARE PRODUCT MEMBERS

There is currently a Local Coverage Determination (LCD) for Stereotactic Radiosurgery (SRS) and Stereotactic Body Radiation Therapy (SBRT). Please refer to the following LCD website for Medicare Members:

https://www.cms.gov/medicare-coverage-database/details/lcd-details.aspx?LCDId=35076&ver=56&CntrctrSelected=298*1&Cntrctr=298&s=41&DocType=2&bc=AAgAAAQAaAA&A&