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Clinical Appropriateness Guidelines

Radiation Oncology

Appropriate Use Criteria: Radiation Therapy for Non-Malignant Disease

Proprietary
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Description and Application of the Guidelines

The Carelon Clinical Appropriateness Guidelines (hereinafter “the Carelon Clinical Appropriateness Guidelines” or the “Guidelines”) are designed to assist providers in making the most appropriate treatment decision for a specific clinical condition for an individual. The Guidelines establish objective and evidence-based criteria for medical necessity determinations, where possible, that can be used in support of the following:

- To establish criteria for when services are medically necessary
- To assist the practitioner as an educational tool
- To encourage standardization of medical practice patterns
- To curtail the performance of inappropriate and/or duplicate services
- To address patient safety concerns
- To enhance the quality of health care
- To promote the most efficient and cost-effective use of services

The Carelon guideline development process complies with applicable accreditation and legal standards, including the requirement that the Guidelines be developed with involvement from appropriate providers with current clinical expertise relevant to the Guidelines under review and be based on the most up-to-date clinical principles and best practices. Resources reviewed include widely used treatment guidelines, randomized controlled trials or prospective cohort studies, and large systematic reviews or meta-analyses. Carelon reviews all of its Guidelines at least annually.

Carelon makes its Guidelines publicly available on its website. Copies of the Guidelines are also available upon oral or written request. Additional details, such as summaries of evidence, a list of the sources of evidence, and an explanation of the rationale that supports the adoption of the Guidelines, are included in each guideline document.

Although the Guidelines are publicly available, Carelon considers the Guidelines to be important, proprietary information of Carelon, which cannot be sold, assigned, leased, licensed, reproduced or distributed without the written consent of Carelon. Use of the Guidelines by any external AI entity without the express written permission of Carelon is prohibited.

Carelon applies objective and evidence-based criteria, and takes individual circumstances and the local delivery system into account when determining the medical appropriateness of health care services. The Carelon Guidelines are just guidelines for the provision of specialty health services. These criteria are designed to guide both providers and reviewers to the most appropriate services based on a patient’s unique circumstances. In all cases, clinical judgment consistent with the standards of good medical practice should be used when applying the Guidelines. Guideline determinations are made based on the information provided at the time of the request. It is expected that medical necessity decisions may change as new information is provided or based on unique aspects of the patient’s condition. The treating clinician has final authority and responsibility for treatment decisions regarding the care of the patient and for justifying and demonstrating the existence of medical necessity for the requested service. The Guidelines are not a substitute for the experience and judgment of a physician or other health care professionals. Any clinician seeking to apply or consult the Guidelines is expected to use independent medical judgment in the context of individual clinical circumstances to determine any patient’s care or treatment.

The Guidelines do not address coverage, benefit or other plan specific issues. Applicable federal and state coverage mandates take precedence over these clinical guidelines, and in the case of reviews for Medicare Advantage Plans, the Guidelines are only applied where there are not fully established CMS criteria. If requested by a health plan, Carelon will review requests based on health plan medical policy/guidelines in lieu of the Carelon Guidelines. Pharmaceuticals, radiotracers, or medical devices used in any of the diagnostic or therapeutic interventions listed in the Guidelines must be FDA approved or conditionally approved for the intended use. However, use of an FDA-approved or conditionally approved product does not constitute medical necessity or guarantee reimbursement by the respective health plan.

The Guidelines may also be used by the health plan or by Carelon for purposes of provider education, or to review the medical necessity of services by any provider who has been notified of the need for medical necessity review, due to billing practices or claims that are not consistent with other providers in terms of frequency or some other manner.

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General Clinical Guideline

Clinical Appropriateness Framework

Critical to any finding of clinical appropriateness under the guidelines for a specific diagnostic or therapeutic intervention are the following elements:

- Prior to any intervention, it is essential that the clinician confirm the diagnosis or establish its pretest likelihood based on a complete evaluation of the patient. This includes a history and physical examination and, where applicable, a review of relevant laboratory studies, diagnostic testing, and response to prior therapeutic intervention.
- The anticipated benefit of the recommended intervention is likely to outweigh any potential harms, including from delay or decreased access to services that may result (net benefit).
- Widely used treatment guidelines and/or current clinical literature and/or standards of medical practice should support that the recommended intervention offers the greatest net benefit among competing alternatives.
- There exists a reasonable likelihood that the intervention will change management and/or lead to an improved outcome for the patient.

Providers may be required to submit clinical documentation in support of a request for services. Such documentation must a) accurately reflect the clinical situation at the time of the requested service, and b) sufficiently document the ordering provider's clinical intent.

If these elements are not established with respect to a given request, the determination of appropriateness will most likely require a peer-to-peer conversation to understand the individual and unique facts that would justify a finding of clinical appropriateness. During the peer-to-peer conversation, factors such as patient acuity and setting of service may also be taken into account to the extent permitted by law.

Simultaneous Ordering of Multiple Diagnostic or Therapeutic Interventions

Requests for multiple diagnostic or therapeutic interventions at the same time will often require a peer-to-peer conversation to understand the individual circumstances that support the medical necessity of performing all interventions simultaneously. This is based on the fact that appropriateness of additional intervention is often dependent on the outcome of the initial intervention.

Additionally, either of the following may apply:

- Current literature and/or standards of medical practice support that one of the requested diagnostic or therapeutic interventions is more appropriate in the clinical situation presented; or
- One of the diagnostic or therapeutic interventions requested is more likely to improve patient outcomes based on current literature and/or standards of medical practice.

Repeat Diagnostic Intervention

In general, repeated testing of the same anatomic location for the same indication should be limited to evaluation following an intervention, or when there is a change in clinical status such that additional testing is required to determine next steps in management. At times, it may be necessary to repeat a test using different techniques or protocols to clarify a finding or result of the original study.

Repeated testing for the same indication using the same or similar technology may be subject to additional review or require peer-to-peer conversation in the following scenarios:

- Repeated diagnostic testing at the same facility due to technical issues
- Repeated diagnostic testing requested at a different facility due to provider preference or quality concerns

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- Repeated diagnostic testing of the same anatomic area based on persistent symptoms with no clinical change, treatment, or intervention since the previous study
- Repeated diagnostic testing of the same anatomic area by different providers for the same member over a short period of time

Repeat Therapeutic Intervention

In general, repeated therapeutic intervention in the same anatomic area is considered appropriate when the prior intervention proved effective or beneficial and the expected duration of relief has lapsed. A repeat intervention requested prior to the expected duration of relief is not appropriate unless it can be confirmed that the prior intervention was never administered. Requests for ongoing services may depend on completion of previously authorized services in situations where a patient's response to authorized services is relevant to a determination of clinical appropriateness.

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Radiation Therapy for Non-Malignant Disease

General Information

Definitions

Statistical terminology

- **Confidence interval (CI)** describes the amount of uncertainty associated with a sampling method. Confidence intervals are usually reported to help explain how reliable, or precise, a result is.
- **Hazard ratio (HR)** is a measure of how often a particular event happens in one group compared to how often it happens in another group, over time. In cancer research, hazard ratios are often used in clinical trials to measure survival at any point in time in a group of patients who have been given a specific treatment compared to a control group given another treatment or a placebo. A hazard ratio of one means that there is no difference in survival between the two groups. A hazard ratio of greater than one or less than one means that survival was better in one of the groups.
- **Odds ratio (OR)** is a measure of the odds of an event happening in one group compared to the odds of the same event happening in another group. In cancer research, odds ratios are most often used in case-control (backward looking) studies to find out if being exposed to a certain substance or other factor increases the risk of cancer. For example, researchers may study a group of individuals with cancer (cases) and another group without cancer (controls) to see how many people in each group were exposed to a certain substance or factor. They calculate the odds of exposure in both groups and then compare the odds. An odds ratio of one means that both groups had the same odds of exposure and, therefore, the exposure probably does not increase the risk of cancer. An odds ratio of greater than one means that the exposure may increase the risk of cancer, and an odds ratio of less than one means that the exposure may reduce the risk of cancer. Also called relative odds.
- **Overall survival (OS)** is the length of time from either the date of diagnosis or the start of treatment for a disease, such as cancer, that patients diagnosed with the disease are still alive. In a clinical trial, measuring overall survival is one way to see how well a new treatment works.
- **Overall survival rate** is the percentage of people in a study or treatment group who are still alive for a certain period of time after they were diagnosed with or started treatment for a disease, such as cancer. The overall survival rate is often stated as a five-year survival rate, which is the percentage of people in a study or treatment group who are alive five years after their diagnosis or the start of treatment. Also called survival rate.
- **Progression-free survival (PFS)** is the length of time during and after the treatment of a disease, such as cancer, that a patient lives with the disease but does not get worse. In a clinical trial, measuring progression-free survival is one way to see how well a new treatment works.
- **Relative risk (RR)** is a measure of the risk of a certain event happening in one group compared to the risk of the same event happening in another group. In cancer research, relative risk is used in prospective (forward looking) studies, such as cohort studies and clinical trials. A relative risk of one means there is no difference between two groups in terms of their risk of cancer, based on whether they were exposed to a certain substance or factor, or how they responded to two treatments being compared. A relative risk of greater than one or of less than one usually means that being exposed to a certain substance or factor either increases (relative risk greater than one) or decreases (relative risk less than one) the risk of cancer, or that the treatments being compared do not have the same effects. Also called risk ratio.
- **Response rate** is the percentage of patients whose cancer shrinks or disappears after treatment.

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Radiation Therapy for Non-Malignant Disease Considerations

General Considerations

Radiation therapy (RT) for benign (non-malignant) diseases has a long history, dating back to the early 20th century. It was commonly used for a variety of conditions before concerns about late toxicity and secondary cancers led to more restrictive use, especially in Anglo-American countries.

In the 1940s, RT was widely practiced for benign diseases such as cavernous angioma and ankylosing spondylitis, with techniques evolving from radium/radon to contact X-ray and orthovoltage units. Advances in radioprotection, fractionation, and dosimetry improved safety and efficacy, but the risk of long-term complications led to a decline in used outside of specific indications.

In Germany, RT for non-malignant diseases is well-established and widely accepted, with about 50,000 patients treated annually across more than 300 facilities. These indications include painful degenerative skeletal disorders (e.g., plantar fasciitis, epicondylitis), hyperproliferative disorders (e.g., keloids, Dupuytren's contracture), and symptomatic functional disorders (e.g., Graves' ophthalmopathy, heterotopic ossification).

It is estimated that fully one-third of all RT given in Germany is for non-malignant disease. Germany leads in the clinical use of RT for benign diseases, supported by national consensus guidelines (DEGRO S2e) and the German Cooperative Group on Benign Diseases (GCG-BD). Guidelines and regular scientific meetings have standardized care and promoted research, with ongoing efforts to update protocols and encourage outcome registries. Compared to other countries, especially Anglo-American regions, Germany's acceptance and integration of RT for benign diseases is much higher.

RT for benign diseases is typically delivered with much lower total and single doses, and over shorter time schedules, than for malignancies. The primary goals are pain reduction, improved function, and preservation or recovery of quality of life.

While retrospective data and some randomized trials exist (e.g., for heterotopic ossification), more prospective studies are needed for many indications. Modern RT techniques have reduced risks but concerns about late toxicity and secondary malignancy remain. Following established national or international guidelines ensures appropriate patient selection, dosing, and follow-up. RT may be more costly and less acceptable than alternatives (e.g., NSAIDs for degenerative disorders) but can offer advantages in toxicity profile and compliance for selected patients. Regular updates to guidelines, registries, and clinical trials are essential for maintaining high standards and supporting evidence-based practice.

Arteriovenous Malformations

Radiation therapy, especially stereotactic radiosurgery (SRS), is a non-invasive treatment option for arteriovenous malformations (AVMs), most commonly in the brain. It is particularly useful for small AVMs or those in locations where surgery would be high risk. SRS delivers highly focused beams of radiation directly to the AVM. The radiation damages the abnormal blood vessel walls, causing them to scar and thicken. Over 1 to 3 years, the scarred vessels close off, effectively obliterating the AVM. The treatment is usually performed in a single session, though larger AVMs may require multiple sessions (staged SRS). The outpatient procedure has minimal discomfort and a quick recovery.

For AVMs ≤ 3 cm, the 3-year obliteration rate is 70%-80%. For larger AVMs, success rates are lower (30%-70%) and may require staged treatments. SRS is also used to reduce AVM size before surgery to treat AVMs not suitable for surgical removal. Most patients experience few acute side effects, such as mild scalp irritation or localized hair loss. There is a small risk of delayed symptoms due to radiation, and the risk of bleeding remains until the AVM is fully closed.

Desmoid Tumors

Desmoid tumors are rare, benign but locally aggressive soft tissue tumors with a high recurrence rate. Surgery is often the first-line treatment, but radiation therapy (RT) is considered for unresectable, recurrent or positive surgical margins. RT can be effective for local disease control, especially when surgery is not feasible. Local control rates at 5 years are around 70%-80%. For unresectable tumors, doses around 56-60 Gy yield local control in about 75% of cases. Higher doses result in better local control but are also associated with increased risk of

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complications. Lower doses (< 54 Gy) are less effective for preventing recurrence. Radiation as an adjunct to surgery is generally not recommended for patients with negative margins but is considered for positive margins or unresectable disease.

Acute side effects are usually mild (skin toxicity). Long-term risks include soft tissue fibrosis, lymphangitis, and, rarely, radiation-induced sarcoma. Radiation therapy is effective for local control of desmoid tumors in selected cases, but its use must be balanced against potential long-term risks.

Dupuytren-Ledderhose-Peyronie Disease

Radiation therapy (RT) is a non-invasive treatment option for early-stage Dupuytren's contracture and Ledderhose nodules, aimed at slowing disease progression and reducing symptoms. RT targets fibroblast activity and collagen overproduction—key drivers of these connective tissue disorders. By reducing fibroblast proliferation and collagen deposition, it prevents cord/nodule formation. RT exerts anti-inflammatory effects to alleviate pain and swelling. It softens existing thickened tissue through cellular modulation.

Patients are typically with 10 fractions over 2 weeks given in split course fashion with a 2-month treatment break in between treatment weeks. For Dupuytren's contracture, 69%-93% of treated patients show halted progression in early disease stages (Tubiana 0-1). Studies report a 75% reduction in need for invasive surgery compared to observation. Best results are obtained in treating nodules without contracture or < 10-degree finger bending. For Ledderhose nodules, similar response rates are seen with nodule softening and improved foot mobility. RT is particularly effective before plantar fascia contracture develops. Given the low doses administered, retreatment is possible if the disease reactivates. RT is often used post-surgery/needle aponeurotomy/Xiaflex to prevent recurrence.

Common side effects include temporary skin redness (32% of patients), dryness/peeling (14%-25%), with rare long-term skin atrophy (2%-5%). No radiation-induced malignancies were reported in studies with 12-year follow-up.

While systematic reviews note limited high-quality evidence, clinical data shows RT can effectively stabilize early-stage disease when properly administered.

Peyronie's disease (PD) is fibrous scar tissue inside the penis that causes curved, painful erections. It can be caused by the same process as Dupuytren's contracture or repeated penile injury, typically during sex or physical activity. RT is primarily aimed at pain relief and halting disease progression in early PD.

Studies show that up to 71% of patients report substantial pain relief, and about half experience improvements in penile curvature and plaque size. RT is less effective for correcting established penile curvature or restoring erectile function.

RT is generally well-tolerated, with most side effects being mild and transient, such as temporary skin redness or dryness. No serious adverse events or malignancies have been reported at typical doses (up to 32 Gy).

Graves' Ophthalmopathy

Graves' ophthalmopathy (GO) is an inflammatory condition associated with Graves' disease, impacting the eye muscles and surrounding tissues. Orbital radiotherapy is used to treat moderate to severe, active GO, particularly when corticosteroids alone are insufficient or cause side effects. Radiation therapy (RT) is most effective in patients with recent-onset, active disease and is often combined with corticosteroids for better outcomes.

RT is typically initiated for patients with recent-onset eye muscle involvement, inflammation, or optic neuropathy. RT is effective in reducing inflammation, diplopia (double vision), and orbital pain, and can improve eye movement and appearance. Best results are seen when started with the active phase of the disease (usually within 6-12 months of symptom onset).

RT is generally well tolerated with a low risk of serious side effects. The risk of cataracts is low, especially if lens exposure is minimized. Radiation-induced retinopathy is rare but more likely in patients with diabetes or with older techniques. No increased risk of secondary malignancy has been observed in long-term follow-up.

Standard regimen is 20 Gy in 10 fractions (2 Gy per day over two weeks). Contraindicated with patients with hypertensive or diabetic retinopathy

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Gynecomastia

Radiation therapy (RT) is used to prevent and treat gynecomastia, especially in men undergoing hormone therapy for prostate cancer. It is most effective when given prophylactically—before starting hormone therapy—to reduce the risk of developing gynecomastia and associated breast pain. Prophylactic RT can reduce the incidence of gynecomastia from 71%-85% down to 15%-52%, depending on the study and dosing regimen. RT is less effective for treating established gynecomastia, with improvement or resolution seen in about 7%-33% of cases. RT is less effective than tamoxifen for prevention but is an alternative when medications are not suitable.

Prophylactic RT is typically administered in a single, low-dose fraction, most commonly ranging from 8-12 Gy. Side effects are usually mild and include short-lived breast/nipple erythema, tenderness, or skin irritation, occurring in about one-third of patients. Tamoxifen (20 mg/day) is more effective in reducing both gynecomastia and breast pain but is associated with higher adverse effects, such as dizziness and hot flashes.

Heterotopic Bone Formation

Heterotopic ossification (HO) is the abnormal formation of bone in soft tissues, most commonly after trauma or surgery near joints, especially the hip. It can cause pain, swelling, and reduced joint movement. Radiation therapy (RT) is used to prevent HO, especially after joint replacement or orthopedic surgery in high-risk patients. It works by stopping the proliferation of cells that would otherwise form abnormal bone. Radiation does not remove existing HO but helps prevent new bone from forming after surgery. It is often combined with surgery if HO has already developed and needs removal.

A single, low dose (typically 7-8 Gy) is delivered in one session. Timing is crucial: radiation is most effective when given within 24 hours before or up to 72 hours after surgery. Radiation is highly effective at preventing HO, with studies showing excellent long-term results and minimal complications.

Side effects are usually mild, such as temporary skin redness or irritation at the treatment site. Radiation is considered more effective than nonsteroidal anti-inflammatory drugs (NSAIDs) for HO prevention in high-risk patients.

Jugular Paraganglioma

Jugular paragangliomas (also called glomus jugulare tumors) are rare, typically benign, highly vascular tumors located at the skull base. Radiation therapy (RT), including conventional external beam radiation therapy (EBRT) and stereotactic radiosurgery (SRS), is a well-established, effective, and safe treatment option, especially for patients who are not ideal surgical candidates or wish to avoid the risks of surgery.

RT achieves excellent local tumor control rates, with 5- and 10-year local control rates ranging from 91%-100%. SRS and fractionated RT both provide similar tumor control, with SRS showing tumor control rates of about 94%-96% at 5 years. Symptom stabilization or improvement is common, and progression-free survival is high.

RT is associated with minimal morbidity and a much lower complication rate compared to surgery. Major complications and new cranial nerve deficits are rare, especially with modern techniques. Late toxicities, such as vascular events or radiation-induced secondary tumors, are very uncommon but have been reported in long-term follow-up. RT is often preferred for patients with significant surgical risk or medical comorbidities, tumors with high surgical morbidity risk, patients who decline surgery, or tumors not amenable to complete surgical resection.

Conventional fractionated EBRT: Typical dose is 45-50.4 Gy in 1.8 -2 Gy fractions. SRS: Usually delivered as a single large dose of 12-15 Gy, or in a few fractions (SBRT), depending on tumor size and proximity to critical structures.

Keloid Scar

Radiation therapy is commonly used to prevent keloid recurrence after surgical excision but can also treat large or resistant keloids that do not respond to other treatments. A frequent clinical scenario is treating recurrent keloids of the ear lobe after ear piercing. The therapy works by targeting abnormal fibroblasts responsible for excessive collagen production, thereby inhibiting keloid formation and reducing inflammation.

Low-dose radiation is delivered directly to the keloid or surgical site, typically within 24 hours after excision, to maximize effectiveness. The radiation disrupts the cell cycle in keloid-forming cells, preventing new scar tissue

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from developing. Superficial radiation or electron beam therapy is often used, as these penetrate only the upper skin layers, minimizing risk to deeper tissues.

When combined with surgery, radiation therapy can reduce keloid recurrence rates to below 10%. Primary radiation therapy (without surgery) is less effective than post-surgical (adjuvant) radiation.

Side effects are generally mild and may include temporary skin redness or irritation. Since many keloid patients are relatively young, there is a theoretical risk of secondary malignancy, but this is considered very low with current low-dose, targeted techniques.

Neovascular Age-Related Macular Degeneration (nAMD)

Radiation therapy has been explored as a treatment for neovascular (wet) age-related macular degeneration (nAMD), specifically targeting abnormal blood vessel growth (choroidal neovascularization, CNV) that threatens vision. The rationale is that ionizing radiation can inhibit the key processes driving CNV, such as abnormal vessel growth and inflammation. External beam radiotherapy (EBRT) delivers radiation from outside the eye but is less targeted, risking damage to healthy tissues. Epimacular brachytherapy (EMB) involves surgically placing a radioactive source near the macula to deliver focused radiation to the lesion. Stereotactic radiosurgery (SRS) uses precisely targeted beams delivered non-invasively through the sclera to focus on the macula.

Studies show that stereotactic radiotherapy can reduce the number of anti-VEGF injections needed but does not significantly improve visual outcomes compared to standard anti-VEGF therapy alone. EMB and other forms of radiotherapy have not demonstrated noninferiority for visual acuity compared to anti-VEGF monotherapy for visual acuity compared to anti-VEGF monotherapy and may be associated with more adverse events such as radiation retinopathy.

The recent STAR trial, a phase III sham-controlled trial showed that SRS of 16 Gy reduced the need for ranibizumab injections without worsening vision in a group of patients aged 50 and older with chronic active nAMD and at least three previous anti-VEGF injections. The SRT group received a mean of 10.7 injections over 2 years versus 13.3 injections with sham, a reduction of 2.9 injections. Overall, eyes with microvascular abnormalities tended to have better best-corrected visual acuity than those without. Fewer ranibizumab injections offset the cost of SRT.

Osteoarthritis

Low-dose radiation therapy (LDRT) is an emerging treatment for osteoarthritis (OA) that targets inflammation in affected joints to reduce pain and improve mobility. It is typically considered when other treatments—like medications, physical therapy, or injections—are ineffective or unsuitable, and before opting for surgery.

About 70% of patients report significant pain relief and improved joint function, sometimes lasting up to two years. LDRT reduces inflammation by modulating immune responses and decreasing inflammatory cytokines in the joint. LDRT has been widely used in Europe for decades in older adults (often over age 65) for those who cannot undergo surgery or wish to avoid it.

While there have been several observational studies reporting benefits for LDRT, high-level evidence has been mixed. Of the four randomized sham-controlled clinical trials, only one that was published recently by Fazilat-Panah et al. showed a benefit for LDRT. This trial of 60 patients with knee osteoarthritis included assessment by a blinded rheumatologist. The median age of patients was 77 years (range 72-89). Results showed significant pain score improvements and enhanced joint function with no adverse effects. While this recent trial showed a positive result, it was a small patient population focused on an elderly demographic.

Due to limited level 1 evidence, low dose radiation therapy is not considered medically necessary for the treatment of osteoarthritis. It is noted that high level evidence is emerging with a need for a large scale randomized controlled trial.

Plantar Fasciitis

Low-dose radiation therapy (LDRT) is an established, non-invasive treatment option for plantar fasciitis, particularly for patients who have not found relief with conventional therapies like physical therapy, medications, or steroid injections.

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LDRT uses very low doses of x-rays targeted at the painful heel area. The therapy reduces inflammation by lowering the production of inflammatory chemicals and decreasing pain receptor sensitivity in the foot. Treatment is painless, quick, and typically involves 6 sessions over 3 weeks.

Studies show response rates as high as 81%-83%, with most patients experiencing significant pain reduction and improved mobility. Many patients report long-lasting relief with benefits often persisting for years. Early initiation of radiation therapy after the onset of symptoms may yield better outcomes.

LDRT is generally safe, with minimal to no reported side effects; rare cases may include mild skin dryness at the treatment site. LDRT is typically considered for chronic or refractory plantar fasciitis when other treatments have failed. A second course of LDRT may be done 8 weeks after the first course of treatment if the patient does not respond to treatment.

Refractory Ventricular Tachycardia

Radiation therapy, specifically stereotactic body radiotherapy (SBRT), is an emerging noninvasive treatment for refractory ventricular tachycardia (VT) in patients who have not responded to medication or catheter ablation. This approach is also referred to as stereotactic arrhythmia radioablation (STAR) or VT-ART. SBRT delivers a single, high-dose (typically 25 Gy) of focused radiation to the arrhythmogenic region of the heart, creating myocardial scars that disrupt abnormal electrical circuits causing VT.

Studies report significant reductions in RVT episodes, with some patients experiencing up to 99% fewer arrythmias and improved quality of life. SBRT can reduce the need for antiarrhythmic drugs and implantable cardioverter defibrillator (ICD) shocks. Although it is effective in reducing VT episodes, it presents high recurrence rates, prompting further investigation into its long-term effectiveness and optimal application. Safety profiles show early adverse events occurrence is relatively low (about 10%) for severe toxicities, with pneumonitis being a common complication.

Successful implementation of STAR necessitates a multidisciplinary approach involving electrophysiologists, cardiac imaging experts, and radiation oncologists to tailor treatments effectively. Ongoing research and clinical trials are crucial to address the current methodological heterogeneity, to standardize treatment protocols, and to optimize patient outcomes. Given current limitations, STAR should be predominantly applied within structured clinical trials to facilitate data collection and aid in refining treatments.

Trigeminal Neuralgia

Radiation therapy for trigeminal neuralgia (TN) typically involves stereotactic radiosurgery (SRS)—most commonly using the Gamma Knife—to deliver highly focused beams of radiation to the trigeminal nerve, specifically at its entry point into the brainstem. Radiation damages the nerve fibers, disrupting the transmission of pain signals to the brain, which often results in significant pain relief.

About 70%-80% of patients experience significant pain relief after treatment. Complete pain relief is achieved in about 40%-60% of patients, with many maintaining this relief for years. However, over time, some patients may experience recurrence. Most common side effect is mild facial numbness or tingling, occurring in up to 10%-30% of patients. Serious complications are rare. Although not as effective as microvascular decompression (MVD), it is advantageous for older patients or those with surgical contraindications, offering pain relief with fewer serious complications.

Clinical Indications

This guideline outlines different applications of radiation therapy in the treatment of benign diseases.

Arteriovenous Malformations (AVMs)

Intensity Modulated Radiation Therapy (IMRT) is appropriate for AVMs when the following condition is met:

- Only to treat a previously irradiated field

SRS is appropriate to treat small volume AVMs when the following condition is met:

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- For treatment of intracranial arteriovenous malformations with volume ≤ 10 cm^3 or diameter ≤ 3 cm

Multifraction **SRS (SBRT)** is appropriate to treat large volume AVMS when the following condition is met:

- Member is not a surgical candidate or refuses surgery

Desmoid Tumors

IMRT is appropriate to treat Desmoid Tumors/Aggressive Fibromatosis when **EITHER** of the following conditions is met:

- Treatment of a symptomatic lesion when surgery cannot be performed
- Postoperative treatment after resection of Desmoid Tumors/Aggressive Fibromatosis

Fraction Limits

Up to 30 fractions is considered medically necessary.

Dupuytren-Ledderhose-Peyronie's Disease

Dupuytren's Contracture

SRT or 2D Radiation Therapy is appropriate for patients with early stage Dupuytren's contracture when **EITHER** of the following conditions is met:

- Definitive treatment for early stage (Tubiana 0-1) Dupuytren's Contracture
- Adjuvant treatment following surgery or needle aponeurotomy

Fraction Limits

Up to 10 fractions is considered medically necessary.

Ledderhose Nodules

SRT or 2D Radiation Therapy is appropriate to treat Ledderhose nodules before plantar contracture has occurred.

Fraction Limits

Up to 10 fractions is considered medically necessary.

Peyronie's Disease

SRT or 2D/3D Radiation Therapy is appropriate to treat early Peyronie's disease.

Fraction Limits

Up to 10 fractions is considered medically necessary.

Graves' Ophthalmopathy

3D Radiation is appropriate in symptomatic patients with Graves' ophthalmopathy. For Graves' disease, underlying thyroid disease should be treated first.

Fraction Limits

Up to 10 fractions is considered medically necessary.

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Gynecomastia

2D/3D Radiation is appropriate to prevent gynecomastia in patients who will be starting at least 6 months of therapy with DES or an antiandrogen compound.

Fraction Limits

Up to 5 fractions is considered medically necessary.

Heterotopic Ossification

2D Radiation is appropriate to prevent heterotopic bone formation when **EITHER** of the following conditions is met:

- After repair of a traumatic hip fracture
- After hip replacement in patients with a history of significant heterotopic bone formation.

Fraction Limits

Up to 3 fractions is considered medically necessary.

Jugular Paraganglioma

IMRT, SRS, or SBRT is appropriate to treat jugular paraganglioma when the following condition is met:

- Member is not a good surgical candidate or refuses surgery

Keloid Scar

SRT or 2D Radiation is appropriate to treat keloid scars when **EITHER** of the following conditions is met:

- Postoperative treatment in a patient with a history of keloid scar formation when radiation is initiated within 48 hours of surgery
- Palliative treatment of a symptomatic keloid which has not responded to other forms of treatment

Neovascular Age-related Macular Degeneration (nAMD)

SRS and epimacular brachytherapy are considered **not medically necessary** to treat Neovascular Age-related Macular Degeneration.

Osteoarthritis

2D/3D Radiation is considered **not medically necessary** to treat Osteoarthritis.

Plantar Fasciitis

SRT or 2D Radiation is appropriate to treat Plantar Fasciitis when the following condition is met:

- Member has not responded to conservative therapy (PT, medications, injections) x 6 months

Fraction Limits

Up to 6 fractions is considered medically necessary.

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Refractory Ventricular Tachycardia

SBRT is currently being evaluated to treat Refractory Ventricular Tachycardia in clinical trials and is considered experimental and investigational.

Trigeminal Neuralgia

SRS is appropriate to treat Trigeminal Neuralgia when the following condition is met:

- Member is not a surgical candidate or refuses surgery.

Codes

The following code list is not meant to be all-inclusive. Authorization requirements will vary by health plan. Please consult the applicable health plan for guidance on specific procedure codes.

Specific CPT codes for services should be used when available. Nonspecific or not otherwise classified codes may be subject to additional documentation requirements and review.

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Arteriovenous Malformation

CPT/HCPCS

Stereotactic Body Radiation Therapy

63620	Stereotactic radiosurgery (particle beam, gamma ray, or linear accelerator); one spinal lesion
63621	Stereotactic radiosurgery (particle beam, gamma ray, or linear accelerator); each add'l spinal lesion
77295	3-dimensional radiotherapy plan, including dose-volume histograms (3D Conformal treatment plan)
77301	Intensity modulated radiation therapy plan, including dose volume histogram for target and critical structure partial tolerance specifications (IMRT treatment plan)
77338	Multi-leaf collimator (MLC) device(s) for intensity modulated radiation therapy (IMRT), design and construction per IMRT plan
77370	Special medical radiation physics consultation
77373	Stereotactic body radiation therapy, treatment delivery, per fraction to 1 or more lesions, including image guidance, entire course not to exceed 5 fractions
77435	Stereotactic body radiation therapy, treatment management, per treatment course, to 1 or more lesions, including image guidance, entire course not to exceed 5 fractions
77470	Special treatment procedure
G0339	Image-guided robotic linear accelerator-based 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

Stereotactic Radiosurgery

63620	Stereotactic radiosurgery (particle beam, gamma ray, or linear accelerator); one spinal lesion
63621	Stereotactic radiosurgery (particle beam, gamma ray, or linear accelerator); each add'l spinal lesion
77295	3-dimensional radiotherapy plan, including dose-volume histograms
77301	Intensity modulated radiotherapy plan, including dose-volume histograms for target and critical structure partial tolerance specifications (Listed once only)
77338	Multi-leaf collimator (MLC) device(s) for intensity modulated radiation therapy (IMRT), design and construction per IMRT plan
77370	Special medical radiation physics consultation
77371	Radiation treatment delivery, stereotactic radiosurgery (SRS) complete course of treatment of cranial lesion(s) consisting of 1 session; multi-source Cobalt 60 based

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77372	Radiation treatment delivery, stereotactic radiosurgery (SRS) complete course of treatment of cranial lesion(s) consisting of 1 session; linear accelerator based
77432	Stereotactic radiation treatment management of cranial lesion(s) (complete course of treatment consisting of 1 session)
G0339	Image-guided robotic linear accelerator-based 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

ICD-10 Diagnoses

Q28.2	Arteriovenous malformation of cerebral vessels
Q28.3	Other malformations of cerebral vessels

Desmoid Tumors

CPT/HCPCS

Intensity Modulated Radiation Therapy

77301	Intensity modulated radiation therapy plan, including dose volume histogram for target and critical structure partial tolerance specifications (IMRT treatment plan)
77338	Multi-leaf collimator (MLC) device(s) for intensity modulated radiation therapy (IMRT), design and construction per IMRT plan
77402	Radiation treatment delivery; Level 1 (for example, single electron field, multiple electron fields, or 2D photons), including imaging guidance, when performed
77407	Radiation treatment delivery; Level 2, single isocenter (eg, 3D or IMRT), photons, including imaging guidance, when performed
77412	Radiation treatment delivery; Level 3, multiple isocenters with photon therapy (e.g., 2D, 3D, or IMRT) or a single-isocenter photon therapy (e.g., 3D or IMRT) with active motion management, or total skin electrons, or mixed-electron/photon field(s), including imaging guidance, when performed

ICD-10 Diagnoses

D21.9	Benign neoplasm of connective and other soft tissue, unspecified
D48.1	Neoplasm of uncertain behavior of other unspecified sites

Dupuytren's Contracture – Ledderhose Nodules – Peyronie's disease

CPT/HCPCS

2D and 3D Conformal

77295	3-dimensional radiotherapy plan, including dose-volume histograms (3D Conformal treatment plan)
77402	Radiation treatment delivery, >=1 MeV; simple
77407	Radiation treatment delivery, >=1 MeV; intermediate
77412	Radiation treatment delivery, >=1 MeV; complex

Superficial, Orthovoltage

77436	Surface radiation therapy, treatment planning & simulation-aided field setting
77437	Surface radiation therapy, superficial, delivery, <150 kV, per fraction (eg, electronic brachytherapy)
77438	Surface radiation therapy, orthovoltage, delivery, >150-500 kV, per fraction
77439	Surface radiation therapy, superficial or orthovoltage, image guidance, ultrasound for placement of radiation therapy fields for treatment of cutaneous tumors, per course of treatment

ICD-10 Diagnoses

M72.0	Palmar Fascial Fibrosis
M72.2	Plantar fascial fibromatosis
N48.6	Plastic induration of the penis

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Graves' Ophthalmopathy

CPT/HCPCS

2D and 3D Conformal

77295	3-dimensional radiotherapy plan, including dose-volume histograms (3D Conformal treatment plan)
77402	Radiation treatment delivery; Level 1 (for example, single electron field, multiple electron fields, or 2D photons), including imaging guidance, when performed
77407	Radiation treatment delivery; Level 2, single isocenter (eg, 3D or IMRT), photons, including imaging guidance, when performed
77412	Radiation treatment delivery; Level 3, multiple isocenters with photon therapy (e.g., 2D, 3D, or IMRT) or a single-isocenter photon therapy (e.g., 3D or IMRT) with active motion management, or total skin electrons, or mixed-electron/photon field(s), including imaging guidance, when performed

ICD-10 Diagnoses

H06.2	Dysthyroid exophthalmos

Gynecomastia

CPT/HCPCS

2D and 3D Conformal

77295	3-dimensional radiotherapy plan, including dose-volume histograms (3D Conformal treatment plan)
77402	Radiation treatment delivery; Level 1 (for example, single electron field, multiple electron fields, or 2D photons), including imaging guidance, when performed
77407	Radiation treatment delivery; Level 2, single isocenter (eg, 3D or IMRT), photons, including imaging guidance, when performed
77412	Radiation treatment delivery; Level 3, multiple isocenters with photon therapy (e.g., 2D, 3D, or IMRT) or a single-isocenter photon therapy (e.g., 3D or IMRT) with active motion management, or total skin electrons, or mixed-electron/photon field(s), including imaging guidance, when performed

ICD-10 Diagnoses

N62	Hypertrophy of breast

Heterotopic Bone Formation

CPT/HCPCS

2D and 3D Conformal

77402	Radiation treatment delivery; Level 1 (for example, single electron field, multiple electron fields, or 2D photons), including imaging guidance, when performed
77407	Radiation treatment delivery; Level 2, single isocenter (eg, 3D or IMRT), photons, including imaging guidance, when performed
77412	Radiation treatment delivery; Level 3, multiple isocenters with photon therapy (e.g., 2D, 3D, or IMRT) or a single-isocenter photon therapy (e.g., 3D or IMRT) with active motion management, or total skin electrons, or mixed-electron/photon field(s), including imaging guidance, when performed

ICD-10 Diagnoses

M61.5	Other ossification of the muscle
M61.55	Other ossification of muscle, thigh
M61.56	Other ossification of muscle, lower leg
M61.58	Other ossification of muscle, other site
M61.9	Calcification and ossification of muscle, unspecified

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Jugular Paraganglioma

CPT/HCPCS

Intensity Modulated Radiation Therapy

77301	Intensity modulated radiation therapy plan, including dose volume histogram for target and critical structure partial tolerance specifications (IMRT treatment plan)
77338	Multi-leaf collimator (MLC) device(s) for intensity modulated radiation therapy (IMRT), design and construction per IMRT plan
77386	Intensity modulated radiation treatment delivery (IMRT), includes guidance and tracking when performed; complex
G6015	Intensity modulated Treatment delivery, single or multiple fields/arcs, via narrow spatially and temporally modulated beams, binary, dynamic MLC, per treatment session
G6016	Compensator-based beam modulation treatment delivery of inverse planned treatment using 3 or more high resolution (milled or cast) compensator convergent beam modulated fields, per treatment session

Stereotactic Body Radiation Therapy

63620	Stereotactic radiosurgery (particle beam, gamma ray, or linear accelerator); one spinal lesion
63621	Stereotactic radiosurgery (particle beam, gamma ray, or linear accelerator); each add'l spinal lesion
77295	3-dimensional radiotherapy plan, including dose-volume histograms (3D Conformal treatment plan)
77301	Intensity modulated radiation therapy plan, including dose volume histogram for target and critical structure partial tolerance specifications (IMRT treatment plan)
77338	Multi-leaf collimator (MLC) device(s) for intensity modulated radiation therapy (IMRT), design and construction per IMRT plan
77370	Special medical radiation physics consultation
77373	Stereotactic body radiation therapy, treatment delivery, per fraction to 1 or more lesions, including image guidance, entire course not to exceed 5 fractions
77435	Stereotactic body radiation therapy, treatment management, per treatment course, to 1 or more lesions, including image guidance, entire course not to exceed 5 fractions
77470	Special treatment procedure
G0339	Image-guided robotic linear accelerator-based 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

Stereotactic Radiosurgery

63620	Stereotactic radiosurgery (particle beam, gamma ray, or linear accelerator); one spinal lesion
63621	Stereotactic radiosurgery (particle beam, gamma ray, or linear accelerator); each add'l spinal lesion
77295	3-dimensional radiotherapy plan, including dose-volume histograms
77301	Intensity modulated radiotherapy plan, including dose-volume histograms for target and critical structure partial tolerance specifications (Listed once only)
77338	Multi-leaf collimator (MLC) device(s) for intensity modulated radiation therapy (IMRT), design and construction per IMRT plan
77370	Special medical radiation physics consultation
77371	Radiation treatment delivery, stereotactic radiosurgery (SRS) complete course of treatment of cranial lesion(s) consisting of 1 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
77432	Stereotactic radiation treatment management of cranial lesion(s) (complete course of treatment consisting of 1 session)
G0339	Image-guided robotic linear accelerator-based 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

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ICD-10 Diagnoses

C75.4	Malignant neoplasm of carotid body
D35.5	Benign neoplasm of carotid/aortic body
D44.6	Neoplasm of uncertain behavior of carotid body

Keloid

CPT/HCPCS

2D and 3D Conformal

77402	Radiation treatment delivery; Level 1 (for example, single electron field, multiple electron fields, or 2D photons), including imaging guidance, when performed
77407	Radiation treatment delivery; Level 2, single isocenter (eg, 3D or IMRT), photons, including imaging guidance, when performed
77412	Radiation treatment delivery; Level 3, multiple isocenters with photon therapy (e.g., 2D, 3D, or IMRT) or a single-isocenter photon therapy (e.g., 3D or IMRT) with active motion management, or total skin electrons, or mixed-electron/photon field(s), including imaging guidance, when performed

Superficial, Orthovoltage

77436	Surface radiation therapy, treatment planning & simulation-aided field setting
77437	Surface radiation therapy, superficial, delivery, <150 kV, per fraction (eg, electronic brachytherapy)
77438	Surface radiation therapy, orthovoltage, delivery, >150-500 kV, per fraction
77439	Surface radiation therapy, superficial or orthovoltage, image guidance, ultrasound for placement of radiation therapy fields for treatment of cutaneous tumors, per course of treatment

ICD-10 Diagnoses

L91.0	Keloid, hypertrophic scar

Neovascular age-related macular degeneration (nAMD)

CPT/HCPCS

Stereotactic Radiosurgery and Epimacular Brachytherapy

63620	Stereotactic radiosurgery (particle beam, gamma ray, or linear accelerator); one spinal lesion
63621	Stereotactic radiosurgery (particle beam, gamma ray, or linear accelerator); each add'l spinal lesion
77295	3-dimensional radiotherapy plan, including dose-volume histograms
77301	Intensity modulated radiotherapy plan, including dose-volume histograms for target and critical structure partial tolerance specifications (Listed once only)
77338	Multi-leaf collimator (MLC) device(s) for intensity modulated radiation therapy (IMRT), design and construction per IMRT plan
77370	Special medical radiation physics consultation
77371	Radiation treatment delivery, stereotactic radiosurgery (SRS) complete course of treatment of cranial lesion(s) consisting of 1 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
77432	Stereotactic radiation treatment management of cranial lesion(s) (complete course of treatment consisting of 1 session)
G0339	Image-guided robotic linear accelerator-based 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

ICD-10 Diagnoses

H35.32	Exudative age-related macular degeneration
H35.321	Exudative age-related macular degeneration, right eye

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H35.3210	Exudative age-related macular degeneration, right eye, stage unspecified
H35.3211	Exudative age-related macular degeneration, right eye, with active choroidal neovascularization
H35.3212	Exudative age-related macular degeneration, right eye, with inactive choroidal neovascularization
H35.3213	Exudative age-related macular degeneration, right eye, with inactive scar
H35.322	Exudative age-related macular degeneration, left eye
H35.3220	Exudative age-related macular degeneration, left eye, stage unspecified
H35.3221	Exudative age-related macular degeneration, left eye, with active choroidal neovascularization
H35.3222	Exudative age-related macular degeneration, left eye, with inactive choroidal neovascularization
H35.3223	Exudative age-related macular degeneration, left eye, with inactive scar
H35.323	Exudative age-related macular degeneration, bilateral
H35.3230	Exudative age-related macular degeneration, bilateral, stage unspecified
H35.3231	Exudative age-related macular degeneration, bilateral, with active choroidal neovascularization
H35.3232	Exudative age-related macular degeneration, bilateral, with inactive choroidal neovascularization
H35.3233	Exudative age-related macular degeneration, bilateral, with inactive scar
H35.329	Exudative age-related macular degeneration, unspecified eye
H35.3290	Exudative age-related macular degeneration, unspecified eye, stage unspecified
H35.3291	Exudative age-related macular degeneration, unspecified eye, with active choroidal neovascularization
H35.3292	Exudative age-related macular degeneration, unspecified eye, with inactive choroidal neovascularization
H35.3293	Exudative age-related macular degeneration, unspecified eye, with inactive scar

Osteoarthritis

CPT/HCPCS

2D and 3D Conformal

77295	3-dimensional radiotherapy plan, including dose-volume histograms (3D Conformal treatment plan)
77402	Radiation treatment delivery; Level 1 (for example, single electron field, multiple electron fields, or 2D photons), including imaging guidance, when performed
77407	Radiation treatment delivery; Level 2, single isocenter (eg, 3D or IMRT), photons, including imaging guidance, when performed
77412	Radiation treatment delivery; Level 3, multiple isocenters with photon therapy (e.g., 2D, 3D, or IMRT) or a single-isocenter photon therapy (e.g., 3D or IMRT) with active motion management, or total skin electrons, or mixed-electron/photon field(s), including imaging guidance, when performed

ICD-10 Diagnoses

M15	Polyosteoarthritis
M16	Coxarthrosis (Hip Osteoarthritis)
M17	Gonarthrosis (Knee Osteoarthritis)
M18	Osteoarthritis of the first carpometacarpal joint
M19	Other and unspecified osteoarthritis

Plantar fasciitis

CPT/HCPCS

2D and 3D Conformal

77402	Radiation treatment delivery; Level 1 (for example, single electron field, multiple electron fields, or 2D photons), including imaging guidance, when performed
77407	Radiation treatment delivery; Level 2, single isocenter (eg, 3D or IMRT), photons, including imaging guidance, when performed
77412	Radiation treatment delivery; Level 3, multiple isocenters with photon therapy (e.g., 2D, 3D, or IMRT) or a single-isocenter photon therapy (e.g., 3D or IMRT) with active motion management, or total skin electrons, or mixed-electron/photon field(s), including imaging guidance, when performed

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Superficial, Orthovoltage

77436	Surface radiation therapy, treatment planning & simulation-aided field setting
77437	Surface radiation therapy, superficial, delivery, <150 kV, per fraction (eg, electronic brachytherapy)
77438	Surface radiation therapy, orthovoltage, delivery, >150-500 kV, per fraction
77439	Surface radiation therapy, superficial or orthovoltage, image guidance, ultrasound for placement of radiation therapy fields for treatment of cutaneous tumors, per course of treatment

ICD-10 Diagnoses

M72.2	Plantar fasciitis

Refractory Ventricular Tachycardia

CPT/HCPCS

Stereotactic Body Radiation Therapy

63620	Stereotactic radiosurgery (particle beam, gamma ray, or linear accelerator); one spinal lesion
63621	Stereotactic radiosurgery (particle beam, gamma ray, or linear accelerator); each add'l spinal lesion
77295	3-dimensional radiotherapy plan, including dose-volume histograms (3D Conformal treatment plan)
77301	Intensity modulated radiation therapy plan, including dose volume histogram for target and critical structure partial tolerance specifications (IMRT treatment plan)
77338	Multi-leaf collimator (MLC) device(s) for intensity modulated radiation therapy (IMRT), design and construction per IMRT plan
77370	Special medical radiation physics consultation
77373	Stereotactic body radiation therapy, treatment delivery, per fraction to 1 or more lesions, including image guidance, entire course not to exceed 5 fractions
77435	Stereotactic body radiation therapy, treatment management, per treatment course, to 1 or more lesions, including image guidance, entire course not to exceed 5 fractions
77470	Special treatment procedure
G0339	Image-guided robotic linear accelerator-based 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

ICD-10 Diagnoses

147.20	Ventricular tachycardia, unspecified
147.29	Other ventricular tachycardia

Trigeminal Neuralgia

CPT/HCPCS

Stereotactic Radiosurgery

63620	Stereotactic radiosurgery (particle beam, gamma ray, or linear accelerator); one spinal lesion
63621	Stereotactic radiosurgery (particle beam, gamma ray, or linear accelerator); each add'l spinal lesion
77295	3-dimensional radiotherapy plan, including dose-volume histograms
77301	Intensity modulated radiotherapy plan, including dose-volume histograms for target and critical structure partial tolerance specifications (Listed once only)
77338	Multi-leaf collimator (MLC) device(s) for intensity modulated radiation therapy (IMRT), design and construction per IMRT plan
77370	Special medical radiation physics consultation
77371	Radiation treatment delivery, stereotactic radiosurgery (SRS) complete course of treatment of cranial lesion(s) consisting of 1 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

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77432	Stereotactic radiation treatment management of cranial lesion(s) (complete course of treatment consisting of 1 session)
G0339	Image-guided robotic linear accelerator-based 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

ICD-10 Diagnoses

G50.0	Trigeminal neuralgia

ASTRO Model Policies

From the ASTRO model policies' site: ASTRO model policies were developed as a means to efficiently communicate what ASTRO believes to be correct coverage policies for radiation oncology services. The ASTRO model policies do not serve as clinical guidelines, and they are subject to periodic review and revision without notice. The ASTRO model policies may be reproduced and distributed, without modification, for noncommercial purposes.

Carelon Medical Benefits Management's evidence synthesis considered the relevant literature cited in the Model Policies listed below.

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These Guidelines are a work in progress that may be refined as often as new significant data become available.

History

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