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# **DOSIMETRY PLANNING**

CPT Codes: 77295, 77300, 77301, 77306, 77307, 77316, 77317, 77318, 77321, 77331, 77399

**Dosimetry planning** is the process of determining the amount, rate, and distribution of radiation emitted from a source of ionizing radiation based on the physician's prescription. Different methods of dosimetry planning may be utilized based on the type of treatment delivery prescribed by the physician; however, only one dosimetry planning service is typically necessary per phase of treatment delivery. In addition to standard isodose planning and more advanced conformal three-dimensional or intensity modulated planning, dosimetry services may also include monitor unit calculations and special dosimetry services to assure that the appropriate radiation dose is delivered to the target volume. Dosimetry services are performed by a medical dosimetrist and/or a qualified medical physicist under the direction of a radiation oncologist. This coding standard describes appropriate utilization of Current Procedural Terminology (CPT®) billing codes.

# **Three-dimensional Radiotherapy Plan (CPT® Code 77295)**

## Professional and Technical

• **77295**- 3-dimensional radiotherapy plan, including dose-volume histogram.

Three-dimensional planning involves computer reconstruction of a delineated tumor volume and surrounding critical normal tissue structures from a computed tomography (CT) scan and/or magnetic resonance imaging (MRI) dataset in preparation for non-coplanar or coplanar therapy. This planning utilizes documented three-dimensional beam's eye view volume dose displays of multiple or moving beams. This procedure combines a computer-aided field setting simulation with isodose planning which occurs



during dosimetry treatment planning. 3D radiotherapy plans are billable as one per treatment course; however, there are occasional scenarios in which more than one 3D radiotherapy plan may be medically necessary. A new CT or MRI dataset supporting a meaningful change in the tumor volume and/or surrounding anatomy and documented medical necessity are required to claim another 3D conformal plan.

When performing a 3D radiotherapy plan, a separate charge for an isodose plan would not be appropriate for the same phase of treatment of that volume. This is due to the isodose plans being utilized as a component of the 3D radiotherapy plan. It would be appropriate, however, to bill an isodose plan for a boost or cone-down performed on the same CT data plan (CPT® code 77301) and are not separately billable.

#### Standards for CPT® Code 77295

One (1) 3D radiotherapy plan (CPT® code 77295) may be approved for each course of 3D external beam treatment delivery. Only one 3D radiotherapy plan is allowed per course of therapy, unless there is documentation of medical necessity, and a second data set is acquired which demonstrates a meaningful change in patient anatomy and/or delineated tumor volumes. In this instance an additional 3D radiotherapy plan may be appropriate.

• The work performed within a 3D radiotherapy plan includes isodose planning. Therefore, it would not be appropriate to bill for an isodose plan (CPT® codes 77306-77307) or a teletherapy port plan (CPT® code 77321) in addition to CPT® code 77295 for the same segment of therapy.

• One (1) 3D radiotherapy plan (CPT® code 77295) may be approved for each course of Stereotactic Radiosurgery (SRS) or Stereotactic Body Radiation Therapy (SBRT).

• 3D radiotherapy plans may be appropriate for high dose rate (HDR) and low dose rate (LDR) brachytherapy treatment courses. CPT® code 77295 may be utilized in lieu of brachytherapy isodose plans (CPT® codes 77316 – 77318). If 3D criteria are met, only 1 unit is allowed per course of therapy unless there is documentation of medical necessity, and a second data set is acquired which demonstrates a meaningful change in patient anatomy and/or delineated tumor volumes. In this instance, an additional 3D radiotherapy plan may be appropriate.

• 3D radiotherapy plans may be appropriate for proton, beam therapy, neutron beam therapy, or SIRT. CPT® code 77295 may be utilized in lieu of teletherapy isodose plans (CPT® code 77321). However, only 1 unit is allowed per course of therapy unless there is documentation of medical necessity, and a second data set is acquired which demonstrates a meaningful change in patient anatomy and/or delineated tumor volumes. In this instance, an additional 3D radiotherapy plan may be appropriate.

• CPT® code 77295, 3-Dimensional Radiotherapy Plan, is not billable for IMRT boost plans.

## **Basic Dosimetry Calculations (CPT® Code 77300)**

#### Professional and Technical

• **77300-** Basic radiation dosimetry calculation, central access depth dose calculation, TDF-NSD gap calculation, off axis factor, tissue inhomogeneity factors, calculation of non-ionizing radiation surface and depth dose as required during treatment, only when prescribed by the treating physician.

Only one calculation is billable per port/beam/angle/arc for 3D and IMRT external beam treatments. In the case of IMRT, secondary monitor unit calculations are required for verification in addition to the "dose" verification performed with phantom measurements. Calculations generated by the treatment planning system are included in the IMRT isodose plan (CPT® code 77301) and are not separately billable.

#### Standards for CPT® Code 77300

• Monitor unit calculations are not billable with CPT® codes 77306, 77307 and 77321. Calculations are considered bundled into these planning codes and are not separately billable.

• CPT® code 77300 is approvable for 2DCRT when hand calculations are done.

• For 3D and IMRT, dosimetry calculations are billable as a quantity of one (1) per medically necessary field/port/angle/arc.

• Multiple calculations per beam angle, when billable, are not allowed due to linear accelerator limitations (e.g., split carriage fields).

• Monitor unit calculations (CPT® code 77300) are bundled into brachytherapy isodose planning codes (CPT® codes 77316, 77317, and 77318) and are not separately authorized. Consequently, CPT® code 77300 is not approvable if BBI generates it in addition to 77316, 77317, or 77318 for brachytherapy planning.

• Monitor unit calculations (CPT® code 77300) are considered bundled into HDR brachytherapy delivery codes (CPT® codes 77770, 77771, 77772, 77767, and 77768) and are not separately authorized.

• Monitor unit calculations (CPT® code 77300) may be approved for stereotactic courses of therapy. The quantity approved will equal the number of fields/portals/angles/arcs submitted by the provider in the preauthorization process. Requests for quantities above a value of ten (10) will require additional supporting documentation and/or physician review for medical necessity.

• For selective internal radiation therapy (SIRT) brachytherapy, up to two (2) monitor unit calculations are approvable upon request.

• For basic radiation dosimetry calculation with sodium iodine-131 (maximum of one unit), lutetium-177 (Pluvicto; maximum of 6 units), radium-223 dichloride (Xofigo; maximum of 6 units), samarium-153 lexidronam (Quadramet; maximum of 6 units), yttrium-90 microsphere selective internal radiation therapy (SIRT;

TheraSphere; SIR-Spheres: maximum of 2 units), and yttrium-90-rituximab (Zevalin; maximum of one unit).

## IMRT Plan (CPT® Code 77301)

#### **Professional and Technical**

• **77301**- Intensity modulated radiotherapy plan, including dose-volume histograms for target and critical structure partial tolerance specifications.

Intensity Modulated Radiation Therapy (IMRT) is a computer-based method of planning treatment delivery. IMRT allows for delivery of highly conformal dose distributions to complex targets positioned near sensitive normal tissues. Conforming the dose to the target area, and away from sensitive normal tissues, improves therapeutic ratios. IMRT utilizes many non-uniform radiation beam intensities using multiple beam angles to deliver a conformal dose. These non-uniform beam intensities are determined by a computer-based optimization technique known as "inverse planning."

Inverse planning requires the planner to identify treatment volumes and sensitive normal structures near the treatment volume. The physician must supply dose constraints for the organs at risk and dose goals for the target area. These goals and constraints allow the IMRT planning software to "reverse engineer" the plan. A Multi-Leaf Collimator (MLC) can be used to shape the radiotherapy beam. IMRT static compensators may also be used.

An IMRT plan (CPT® code 77301) is billable only one time during a course of therapy. In rare cases, billing a second IMRT plan during the same course of therapy may be warranted. In this scenario, planning from a new CT or MRI dataset showing a substantial change in the delineated tumor volume/volume of interest or patient anatomy is required. In addition, a statement from the physician supporting medical necessity is required and must be in the patient's medical record.

If IMRT planning is performed **without** a new CT/MRI data set, then the IMRT plan (CPT® code 77301) is **not** billable. It is possible, however, to capture the charges for the new secondary calculations (CPT® code 77300) performed and for treatment devices (CPT®-code 77334 if they are compensator-based and CPT® code 77338 if they are MLC-based).

A traditional "field-in-field technique" is not considered IMRT but rather 3D conformal radiation therapy. The use of a "field in field" or forward planning technique to block hotspots is NOT considered IMRT. These hotspots are contoured to create a volume of interest to block and would not be considered "inverse planning".

Current planning techniques often employ intensity modulated radiation therapy planning and CPT® code 77301 may be applied to these scenarios. When utilizing CPT® code

77301, all requirements of the code are expected to be met. Associated standards for treatment devices and calculations as well as NCCI edits also apply.

#### Standards for CPT® Code 77301

• One (1) IMRT plan (CPT® code 77301) may be approved per course of medically necessary IMRT treatment.

• Requests for additional IMRT plans (CPT® code 77301) require an additional computed tomography (CT) or magnetic resonance imaging (MRI) scan to be acquired for planning purposes and a medical necessity statement from the requesting physician. The new CT/MRI data set must demonstrate a meaningful change in volumes to necessitate utilization of the new data for planning.

## Isodose Plans (CPT® Codes 77306 and 77307)

Billable group: 77306, 77307 and 77321

#### Professional and Technical

An isodose plan is a graphic display of patient's anatomy to include the distribution of radiation based on a prescribed dose and plan of care created by a radiation oncologist. CPT® codes 77306 and 77307 are not billable on the same date of service with an intensity modulated radiation therapy (IMRT) plan (CPT® code 77301) as IMRT dosimetry planning techniques represent a more advanced method of distributing radiation doses to target volumes. If the volume of interest for the isodose plan is separate and distinct from the volume of interest for the 3D plan, the isodose plan may be separately billable.

- **77306-** Teletherapy isodose plan; simple (1 or 2 unmodified ports directed to a single area of interest), includes basic dosimetry calculation(s)
- **77307-** Teletherapy isodose plan; complex (multiple treatment areas,

tangential ports, the use of wedges, blocking, rotational beam, or special beam considerations), includes basic dosimetry calculation(s)

#### Standards for CPT® Codes 77306 and 77307

• Only one isodose plan is allowed per volume of interest. Contiguous volumes of interest such as breast tangents and a supraclavicular nodal field are considered one volume of interest. Therefore, additional isodose plans are not allowed. In addition, with current planning techniques, a single isocenter planning process is routine which further supports a single plan for these contiguous volumes.

• One (1) isodose plan may be approved for all 2D external beam plans and 3D external beam boost plans in which a 3D isodose plan (CPT® code 77295) has already been billed during the same course of therapy.

#### Brachytherapy Isodose Plans (CPT® Codes 77316, 77317 & 77318) Billable group: 77316, 77317, 77318

#### Professional and Technical

Brachytherapy isodose plans involve CPT® codes 77316 – 77318. The plan will indicate the internal devices used such as tandem and ovoids, vaginal cylinders, catheters and/or other applicators as well as the location of source placement and doses delivered to specific regions of interest. Only one isodose plan is billable per unique tumor volume or procedure. For example, if a partial breast irradiation or GYN vaginal cylinder HDR brachytherapy treatment was planned and the same plan will be used to treat the patient each fraction, then an additional plan is not necessary and therefore only one plan is billable. However, for tandem and ovoids or interstitial needles, if the placement of the device or a change in patient anatomy necessitates a second plan, then it may be billable.

- **77316-** Brachytherapy isodose plan; simple (calculation[s] made from 1 to 4 sources, or remote afterloading brachytherapy, 1 channel), includes basic dosimetry calculation(s)
- **77317-** Brachytherapy isodose plan; intermediate (calculation[s] made from 5 to 10 sources, or remote afterloading brachytherapy, 2-12 channels), includes basic dosimetry calculation(s)
- **77318-** Brachytherapy isodose plan; complex (calculation[s] made from over 10 sources, or remote afterloading brachytherapy, over 12 channels), includes basic dosimetry calculation(s)

#### Standards for CPT® Codes 77316, 77317 and 77318

Only one brachytherapy isodose plan is billable per unique treatment volume. In medically necessary situations where each application of brachytherapy requires a new image set and new brachytherapy isodose plan, a brachytherapy isodose plan may be billed for each application. Additional brachytherapy isodose plans within the same course of therapy may be approved if the requesting physician provides a rationale that explains why the previous brachytherapy isodose plan cannot be utilized and that supports the medical necessity of creating a new isodose plan.

• A 3D radiotherapy plan (CPT® code 77295) may be substituted for a brachytherapy isodose plan (CPT® codes 77316-77318) if requested by a provider and if a 3D radiotherapy plan has not been authorized in the same course of therapy.

• For prostate seed implants, up to two (2) isodose plans may be approved.

# Special Teletherapy Port Plan (CPT® Code 77321)

#### Professional and Technical

• **77321-** Special teletherapy port plan, particles such as electrons, neutrons and protons, hemi-body and total body.

This code is typically used for electron isodose plans; however, it may also be utilized for special beam considerations such as total body irradiation. An isodose plan is required to support this charge as it is an integral piece of documentation of the planning process. In contrast, an isodose plan is not required for hemi-body and total body planning. A separate form of documentation must be provided instead. This code is billed once per course of treatment. It would not be appropriate to bill an IMRT plan (CPT® code 77301), a 3D radiotherapy plan (CPT® code 77295) or an isodose plan (CPT® codes 77306 – 77307) and a special teletherapy port plan (CPT® code 77321) on the same date of service for the same volume of interest. If the volume of interest for the isodose or 3D plan is separate from the volume of interest for the special teletherapy port plan, then CPT® code 77321 could be billed on the same date as CPT® code 77295, 77306, or 77307.

#### Standards for CPT® Code 77321

- A special teletherapy port plan is a dosimetry plan.
- A special teletherapy port plan may be approved per volume of interest. For example, CPT® code 77321 can be billed with another dosimetry plan (CPT® code 77306-77307 or 77295) when the volumes of interest are different.
- CPT® code 77321 is not billable for simply utilizing electrons. An isodose plan must be created except for total-body or hemi-body electron treatments.
- One (1) teletherapy port plan (CPT® code 77321) may be approved for all computer-based planning of electron treatments and all proton and neutron beam isodose planning.
- One (1) teletherapy port plan (CPT® code 77321) may be approved for point dose calculations generated for total body irradiation (TBI) special particle planning.

• For proton and neutron beam isodose planning, a 3D radiotherapy plan (CPT® code 77295) may be allowed in lieu of CPT® code 77321.

## Special Dosimetry (CPT® Code 77331)

#### Professional and Technical

• **77331-** Special dosimetry (e.g., TLD/thermoluminescent dosimetry, microdosimetry), only when prescribed by the treating physician

This type of dosimetry is used as a source of independent dose verification, and can be performed using film, diodes, or TLDs, among other tools. It allows for dose confirmation involving a particular area. The frequency of special dosimetry will vary during the radiation course and may be used as many times as unique measurements are medically necessary. If performed, special dosimetry measurements may occur only once per port/field, when supported by medical necessity, and should not be performed as a routine procedure.

#### Standards for CPT® Code 77331

• CPT® code 77331 is billable once per port/field/angle, per course of 2D, electron beam therapy, or 3D external beam radiation therapy only when medically necessary and ordered by a radiation oncologist.

• CPT® code 77331 is not billable for quality assurance (QA) or output measurements associated with brachytherapy, IMRT, intra-operative radiation therapy, proton beam therapy, or stereotactic procedures (SRS and SBRT).

• When diodes are requested with 2D or 3D treatment planning, 77331 may be approved as a quantity equal to the number of ports/fields/arcs/angles.

• Requests with other forms of radiation therapy must be submitted with a medically necessary rationale for the service. The request and rationale will be submitted to a physician clinical reviewer for determination.

## Unlisted Dosimetry Procedure (CPT® Code 77399)

#### Professional and Technical

• **77399-** Unlisted procedure, medical radiation physics, dosimetry and treatment devices, and special services

Unlisted dosimetry procedures are utilized for services and procedures in which an already established Healthcare Common Procedure Coding System (HCPCS) code does not accurately describe the procedure or service provided. Unlisted procedures require documentation for review of the service or procedure to be provided.

#### Standards for CPT® 77399

• An unlisted dosimetry procedure (CPT® code 77399) must be requested.

Rationale and documentation of service must be reviewed by a physician.

• An unlisted dosimetry procedure may be approved for services where a CPT® code does not already exist, and the service is not bundled or packaged into any other services. For example, CPT® code 77399 is not medically necessary when CT-MRI fusion with IMRT planning will be performed. CPT® code 77370 exists and is also not medically necessary in this scenario.

#### **IMAGE GUIDANCE** CPT Codes: 77014, 77387, 77417, G6001, G6002, G6017 Billable Grouping: 77387, G6001, G6002, 77014, G6017 No Billable Group for 77417

#### Technical Only

For planning purposes, CPT® code 77014 involves a computed tomography (CT) scan wherein CT data are collected for dosimetry planning purposes. When performed and billed in addition to the initial simulation of the patient, the CT is considered an integral and bundled component of the simulation itself (CPT® codes 77280-77290). When performed on a separate day from the simulation or by a separate entity, a CT may be billable if:

• Images of the target volume or tumor localization data are acquired immediately prior to treatment.

• The data are fused and registered with the pretreatment data in the same treatment position by the radiation therapist.

• A radiation oncologist, medical physicist, or trained therapist under the supervision of the radiation oncologist reviews the data and the shifts.

• If necessary, the patient is repositioned for treatment delivery using the patient setup adjustments calculated from the registration process. Adjustments are performed by applying the offsets to the treatment position and verified.

CPT® code 77014 is used with CT-based systems (i.e., integrated cone-beam CT, CT/linear accelerator on rails, or TomoTherapy®). Physicians should bill for the professional ("-26") component of 77014 for cone-beam computed tomography (CBCT) image-guided radiation therapy (IGRT) (or use G6001 for ultrasound IGRT, G6002 for stereoscopic kV/MV X-ray IGRT, or G6017 for intra-fraction IGRT) for 2DCRT, 3DCRT, or IMRT.

• **77014-** Computed tomography guidance for placement of radiation therapy fields

#### Standards for CPT® Code 77014

• CPT® code 77014 may be utilized for obtaining computerized tomography images for planning purposes when performed separate from the simulation procedure. This may occur at a separate facility or place of service or later during the treatment process to obtain new data for subsequent dosimetry planning to reduce volumes.

## Image-Guided Radiation Therapy, IGRT (CPT® Code 77387)

#### Professional and Technical

CPT® code 77387 encompasses stereoscopic guidance, ultrasound guidance, CT-based guidance, MRI-based guidance and intrafraction tracking associated with guiding treatment to the appropriate area of the body. IGRT has a professional and a technical component and must be documented appropriately for each occurrence. However, the technical component of the IGRT service is considered bundled when performed on the same date of service as an IMRT treatment delivery (CPT® codes 77385 and 77386).

• **77387-** Guidance for localization of target volume for delivery of radiation treatment delivery, includes intrafraction tracking, when performed

#### Standards for CPT® Code 77387

• CPT® code 77387 does not depend on the type of imaging used for IGRT. For example, it could be used for ultrasound, stereoscopic kV/MV X-ray, intra-fraction, cone-beam CT, or MRI IGRT

• One (1) IGRT procedure (CPT® code 77387) is allowed per external beam fraction of treatment

- CPT® code 77387 when using the following radiation therapy modalities:
   CPT® code 77387 is not medically necessary when superficial radiation therapy
  - CPT® code 77387 can be approved for 2D/3D and IMRT
  - CPT® code 77387 can be approved for Proton beam therapy (PBT)

• IGRT procedures including port images (CPT® Code 77417) and simulations are not billable on the same date of service, for the same treatment site.

• CPT® code 77387 did not receive an assigned reimbursement value in the Medicare Physician Fee Schedule (MPFS). Providers billing under Medicare were instructed to report IGRT services using the following CPT® code and Healthcare Common Procedure Coding System (HCPCS) G-codes:

 77014: Computed tomography guidance for placement of radiation therapy fields Please see the table below for an outline of IGRT reporting requirements regarding their application with the delivery of IMRT. It is extremely important to check with your payer before submitting claims, as requirements and policies vary by payer

• G6001: Ultrasonic guidance for placement of radiation therapy fields

• G6002: Stereoscopic X-ray guidance for localization of target volume for the delivery of radiation therapy

 G6017: Intra-fraction localization and tracking of target or patient motion during delivery of radiation therapy (e.g., 3D positional tracking, gating, 3D surface tracking), each fraction of treatment

## Port Images Image-Guided Radiation Therapy, IGRT (CPT® Code 77417)

### Technical Only

• **77417-** Therapeutic radiology port image(s)

Port images, previously called port films, are x-ray images taken on the treatment machine using the treatment beam to ensure that the treatment setup agrees with the setup parameters established by the simulation and dosimetry.

Port image verification is a technical component only procedure and does not carry a professional component. The technical component (i.e., costs associated with generating port images) is reportable in the non-facility or physician office/freestanding setting using CPT® code 77417. No modifier is required for these services. The physician orders port images to identify any potential variance from the planned course of therapy and utilizes the information to make necessary modifications that may be required to continue covering the tumor and minimize dose delivery to healthy tissue. Per Medicare policy, portal verification images may be reported as one charge per 5 fractions of radiation therapy, regardless of the number of images acquired, provided at least one image is taken.

#### Standards for CPT® Code 77417

- CPT® code 77417 may be billed once for each five fractions of therapy. For example, if there are 14 fractions of radiotherapy, then 2 units of CPT® code 77417 are approvable.
- CPT® code 77417 is billable as a quantity of one (1) for each five fractions of therapy, regardless of the number of port images acquired.
- Port images are not billable for brachytherapy, electron beam therapy, intraoperative radiation therapy (IORT), stereotactic body radiation therapy (SBRT), or stereotactic radiosurgery (SRS).
- Port images (CPT® code 77417) are not billable on the same date of service as a verification simulation (CPT® code 77280) or an IGRT procedure (CPT® code 77387) for the same site of treatment.

## Ultrasound Image-Guided Radiation Therapy, IGRT (HCPCS Code G6001)

• **G6001-** Ultrasonic guidance for placement of radiation therapy fields

Healthcare Common Procedural Coding System (HCPCS) code G6001 is used with ultrasonic guidance 2DCRT and 3DCRT. HCPCS code G6001 may be billed whenever trained personnel (e.g., a therapist or medical physicist) perform the procedure in the physician's office for ultrasound localization of the target volume under the supervision of the treating physician. In the hospital setting, under the Hospital Outpatient Prospective Payment System (HOPPS), the technical component is bundled with the delivery codes. HCPCS code G6001 is not medically necessary when superficial radiation therapy (which is a type of 2DCRT) is used to treat skin cancers or keloids.

Stereoscopic X-Ray Guidance Image-Guided Radiation Therapy, IGRT (HCPCS Code G6002)

• **G6002-** Stereoscopic X-ray guidance for localization of target volume for the delivery of radiation therapy

HCPCS code G6002 is used with stereoscopic X-ray-based systems (i.e., kV X-rays or MV X-rays with or without fiducial markers). HCPCS code G6002 can be used for imaging, localizing, and correcting target volume location immediately prior to 3DCRT or IMRT delivery. Locating the target volume on orthogonal X-rays with fiducial markers (when target volumes cannot be well seen on X-rays) or without them (if the target volume can be seen on X-rays or if bony anatomy can serve as a reliable secondary landmark) ensures accurate treatment of the target and sparing of normal tissues. The stereoscopic images must be fused and registered with the pretreatment digitally reconstructed radiographs (DRRs) and the required shifts calculated. Adjustments are then made to correct for this shift and are confirmed.

For both the physician office setting and the hospital outpatient department setting, HCPCS code G6002 should be reported. The code has a professional and a technical component.

# Intra-Fraction Image-Guided Radiation Therapy, IGRT (HCPCS Code G6017)

• **G6017-** Intra-fraction localization and tracking of target or patient motion during delivery of radiation therapy (e.g., 3-D positional tracking, gating, 3-D surface tracking), each fraction of treatment

HCPCS code G6017 is used with implanted radiofrequency transponders and for 3D positional tracking or surface tracking during delivery of radiation therapy for each fraction of treatment.

## PHYSICIAN TREATMENT MANAGEMENT

CPT® Codes: 77427, 77431, 77432, 77435, 77469, 77470, and 77499

Physician Treatment Management (CPT® Codes 77427 and 77431)

#### **Professional Only**

While the patient is undergoing radiation treatments, the Radiation Oncologist manages the patient's progress, side effects and response to treatment. Four (4) CPT® codes (77427, 77431, 77432, and 77435) provide reimbursement for routine physician treatment

management. These codes differ based on the number of fractions and the treatment modality utilized. Two (2) of the CPT® codes are designated specifically for stereotactic treatment management and are discussed in the next section.

- 77427- Radiation treatment management, per five fractions of treatment
- **77431-** Physician treatment management for a complete course of therapy consisting of one or two fractions only.

CPT® code 77427 is reported once per five fractions; however, if three or four fractions are given in the final week, then another physician management visit would be appropriate. Likewise, at the onset of treatment, at least three fractions of treatment must occur to support CPT® code 77427. Each documented management of a five-fraction period requires a face-to-face encounter between the physician and patient occurring on one of the five fractions that fell within the date span. At least one face-to-face visit is required with the Radiation Oncologist during each 5 fractions of treatment. If a second face-to-face visit occurs during the 5 fractions, then a second unit of CPT® 77427 is not allowed during the 5 fractions.

There are four basic elements to radiation treatment management:

- 1. Clinical patient evaluation and management
- 2. Review of on-treatment images (if any)
- 3. Review of dosimetry, dose delivery and treatment parameters
- 4. Review of patient setup

CPT® code 77431 is billable for external beam radiation therapy management when a complete course of treatment consists of only one or two fractions, excluding stereotactic radiosurgery (SRS) and stereotactic body radiation therapy (SBRT). At least one face-to-face visit is required with the Radiation Oncologist during the one or two fractions of treatment. Examples include keloid, heterotopic ossification, and bone metastasis if treated with only one or two fractions of two-dimensional conventional radiation therapy (2DCRT) or three-dimensional conformal radiation therapy (3DCRT).

#### Standards for CPT® Codes 77427 and 77431

• CPT® code 77427 is billable one time per five fractions of external beam treatment or when 3 or 4 fractions remain at the conclusion of treatment. One (1) unit of CPT® code 77427 may be approved per 5 fractions of external beam therapy (non-SRS/SBRT). The total quantity approved will equal the number of authorized external beam fractions divided by 5 and rounded to the nearest multiple of 5. Two or more treatment sessions on the same day may be counted separately if there has been a distinct break between them.

• CPT® code 77431 is billable one time for external beam courses of therapy (non-SRS/SBRT) consisting of 1 or 2 fractions only.

• Stereotactic courses of therapy utilize CPT® 77432 and 77435 for management services. CPT® codes 77427 and 77431 should not be billed for stereotactic therapy.

• CPT® codes 77427 and 77431 are not billable for brachytherapy courses of therapy. Reimbursement of management services for brachytherapy is found within the professional component of CPT® codes 77750-77799.

## Stereotactic Management (CPT® Codes 77432 and 77435)

#### **Professional Only**

• **77432-** Stereotactic radiation treatment management of cranial lesion(s) (complete course of treatment consisting of one session)

• **77435-** Stereotactic body radiation therapy, treatment management, per treatment course, to one or more lesions, including image guidance, entire course of treatment not to exceed 5 fractions

#### Standards for CPT® 77432 and 77435

- The maximum number of stereotactic deliveries is five (5). Requests for stereotactic management wherein the treatment course is greater than five (5) treatments will not be authorized as stereotactic management.
- One (1) stereotactic management (CPT® code 77432) may be approved when one stereotactic treatment delivery fraction to any intracranial lesion(s) is authorized by the provider.

• One (1) stereotactic body radiation therapy (SBRT) management (CPT® code 77435) may be approved when one (1) fraction of stereotactic body radiation therapy is authorized for extracranial sites, including the spine, OR when two (2) to five (5) stereotactic body radiation therapy (also known as fractionated stereotactic radiation therapy) fractions are authorized for an intracranial site.

## Radiation Treatment Management Code (CPT® Code 77469)

#### **Professional Only**

• **77469-** Intraoperative radiation treatment management

CPT® code 77469 describes the physician work of intraoperative radiation therapy (IORT) management for either photon-based or electron-based IORT treatment delivery. CPT® code 77469 is typically performed in the facility setting. It does not include evaluation and management outside of the IORT session.

#### Standards for CPT® 77469

• The maximum quantity of intraoperative radiation treatment management (CPT® code 77469) allowed per course of treatment is one (1).

## Special Treatment Procedure (CPT® Code 77470)

#### Professional and Technical

• **77470-** Special treatment procedure (e.g., total body irradiation, hemi-body radiation, per oral or endocavitary irradiation)

A special treatment procedure may be utilized for circumstances that require extra time and effort throughout the course of treatment by the staff and the physician, which is medically necessary for the patient and not routine to the service being performed. The use of this procedure code would be appropriate when the "planned course of therapy" is considered beyond the standard for the service performed. For example, routine brachytherapy, 3DCRT, IMRT, SBRT, and SRS are not approved for a special treatment procedure. However, patient circumstances requiring additional planning, management, or treatment time for that modality may qualify provided there is supporting documentation. For example, chemotherapy, targeted therapy (including Herceptin), or immunotherapy concurrently with external beam radiotherapy would qualify. Also, it is not appropriate for CPT® code 77470 to be billed when a patient has another ongoing medical diagnosis such as diabetes, COPD, or hypertension unless it complicates the delivery of radiation therapy, e.g., due to daily EKGs for a pacemaker or use of respiratory or cardiac monitoring.

#### Standards for CPT® Code 77470

- Special treatment procedure (CPT® code 77470) must be requested by the provider.
- The maximum quantity of special treatment procedures (CPT® code 77470) allowed per course of treatment is one (1).
- CPT® code 77470 is allowed for:
  - A pediatric patient requiring daily anesthesia and daily physician personal supervision
  - BID (twice per day) treatments
  - Brachytherapy (including selective internal radiation therapy; maximum of 1 unit per course of treatment, e.g., maximum of 1 unit for 89 Gy in 2 fractions)
  - o Combination of external beam radiation and brachytherapy
  - Cytotoxic chemotherapy and/or targeted therapy (including trastuzumab (Herceptin)) and/or immunotherapy combined with concurrent external beam radiation therapy. In the absence of written payer guidelines, this code may not be reported when radiation is

sequential to chemotherapy/targeted therapy/immunotherapy or chemotherapy/targeted therapy/immunotherapy follows radiation therapy, unless there is some impact of the previously administered chemotherapy/targeted therapy/immunotherapy which will impact the dose and treatment planning of the specific patient.

- $\circ$  Hyperthermia
- o Patients who are difficult to set up
- o Per oral (by mouth) radiation treatment, including radioactive iodine-

131 therapy for hyperthyroidism and selected cases of well-differentiated thyroid carcinoma

- o Radioimmunotherapy when combined with external beam treatment
- Reconstruction of previous treatment plans, complex planning, and physics input
- Total body irradiation (TBI) and hemi-body radiation
- CPT® code 77470 is **NOT** allowed for:
  - Comorbidities such as diabetes, COPD, or hypertension unless it complicates the delivery of radiation therapy, e.g., due to daily EKGs for a pacemaker or use of respiratory or cardiac monitoring

Contouring and/or fusion of datasets for 3DCRT and IMRT treatment planning

- Reviewing a multi-phase plan when a composite plan is created
- Deep inspiration breath-hold (DIBH)
- Hormonal therapy (including abiraterone (Zytiga)) with concurrent external beam radiation therapy

 Routine use of brachytherapy, 3DCRT, IMRT, SBRT, or SRS unless there was cause for extra time and effort that is supported with documentation

- CPT® code 77470 may be approved if **ALL** the following criteria are met:
  - The rationale is supplied by the radiation oncologist

• CPT® code 77470 has not been previously preauthorized within the same course of therapy

• The rationale explains that additional time and effort will be incurred for the patient in question beyond routine planning and treatment for the modality in question: namely, brachytherapy, 3DCRT, IMRT, SBRT, or SRS

• Requests not meeting the criteria outlined above will require a peer-to-peer physician review

Unlisted Procedure, Therapeutic Radiology Treatment Management (CPT® Code 77499)

#### **Technical Only**

• **77499-** Unlisted procedure, therapeutic radiology treatment management

Physicians are required to use the CPT code that accurately describes the service. CPT® Code 77499 (unlisted procedure, therapeutic radiology treatment management) is appropriately billed for any unlisted therapeutic radiology treatment management that is not accurately described by CPT® Codes 77427, 77431, 77432, 77435, 77469, and 77470.

# **PHYSICS**

CPT® Codes: 77336, 77370, and 77790

## Continuing Medical Physics (CPT® Code 77336)

#### **Technical Only**

• **77336-** Continuing medical physics consultation, including assessment of treatment parameters, quality assurance of dose delivery, and review of patient treatment documentation in support of the radiation oncologist, reported per week of therapy

Continuing medical physics is commonly referred to as "weekly physics." It is billed for the quality assurance of dose delivery from a machine or source, as well as review of the charts and documentation of dosimetry plans, calculations, and other items such elapsed days, cumulative dose, and other entries within the patient's chart. Essentially, the continuing medical physics service assures that the physician's prescription is delivered accurately.

Continuing medical physics is billable once per five fraction period. If there are an additional 3 – 4 treatment fractions remaining at the end of treatment beyond the last collection of 5 treatments, an additional unit of CPT<sup>®</sup> code 77336 may be submitted for payment. For example, a patient receiving 27 treatments may have five continuing physics charges and a patient receiving 28 fractions of treatment may have six charges of continuing physics, if each subset has had physics review and documentation within each five-fraction period. Continuing medical physics chart checks are billable for the last 3-5 fraction period when checks occur during the 3-5 fraction period. A review of the medical record by the medical physics is also billable for complete courses of therapy consisting of 1-2 fractions of therapy. This may be the case for two-dimensional conventional radiation therapy (2DCRT), three-dimensional conformal radiation therapy (SBRT), stereotactic body radiation therapy.

#### Standards for CPT® Code 77336

• CPT® code 77336 is billable only once per five fractions of treatment. At least three fractions of therapy must occur at the end of the course for an additional continuing physics charge to be billed. CPT® code 77336 will be approved at a quantity equal to the number of authorized fractions divided by 5, rounded to the nearest multiple of 5.

• CPT® code 77336 is billable only one time for courses of therapy consisting of 1-2 fractions.

• CPT® code 77336 should not be billed for a treatment delivery course involving CPT® code 77401 (i.e., superficial or orthovoltage radiation therapy).

# Special Physics Consult (CPT® Code 77370)

## Technical Only

• 77370- Special medical radiation physics consultation

CPT® code 77370 is utilized for situations where the physician requests a qualified medical physicist's expertise for a specific reason for a patient undergoing or about to undergo radiotherapy. Appropriate use of CPT® code 77370 with brachytherapy, proton beam therapy, stereotactic body radiation therapy, stereotactic radiosurgery, and three-dimensional conformal radiation therapy and fusion of image data sets would only include those instances where treatment planning is 3D, a specific request to evaluate a clinical scenario is needed, and the qualified medical physicist is the only one with the expertise to provide the necessary work to complete the request. For IMRT, only when there is a specific clinical scenario outside of intensity modulated radiation therapy (IMRT) treatment planning where a qualified medical physicist is consulted would 77370 be billable. CPT® code 77370 is not for a treatment planning summary or other services, which are defined by an established CPT® code and are reimbursed by that code. Dosimetry treatment planning is reimbursed with its respective CPT® code.

IMRT quality assurance (QA) is a required part of IMRT planning (CPT® code 77301). Consequently, reimbursement for IMRT QA is included in CPT® code 77301, and IMRT QA is not separately billable as a special physics consult. There may be instances in which a special physics consultation is medically necessary for a patient receiving IMRT. However, this should not be a routine occurrence.

Whenever CPT® code 77370 is requested, documentation must be provided in the medical record for the specific request from the physician, the work performed by the medical physicist, and the physician's acknowledgement of the results.

#### Standards for CPT® Code 77370

- CPT® code 77370 is allowed one time per course of therapy.
- Special physics consultation (CPT® code 77370) services must be requested by the provider.
- A special physics consultation (CPT® code 77370) is approvable for:

 Abutting or overlapping fields due to previous radiation with assessment of the cumulative radiation dose to critical organs. This applies to 2D-CRT, 3D-CRT, brachytherapy, electron beam therapy including total skin electron beam therapy, IMRT, PBT, SBRT or SRS

 Analysis of customized beam modification devices and special blocking procedures (and their dosimetric evaluation) to protect critical organs during treatment (but not for an IMRT plan)

• Complex interrelationships of electron and photon ports (yet not for an electron boost for breast cancer)

• Computation of dose to the fetus of a pregnant patient undergoing radiotherapy

• Coronary artery brachytherapy

 Fusion by a qualified medical physicist of three-dimensional image sets from multiple modalities (CT, MRI, and PET), analysis of slice thickness and pixel size, signal intensity and geometric distortion, as related to lesion and organ at risk delineation uncertainty, etc., with any modality using 3D isodose planning (CPT® code 77295) but not IMRT isodose planning (CPT® code 77301). For example, CPT® code 77370 is approvable for image fusion with three-dimensional conformal radiation therapy. Also, CPT® code 77370 is approvable for image fusion with proton beam therapy and 3D isodose planning. In addition, CPT® code 77370 is approvable for image fusion with SRS/SBRT and 3D isodose planning, e.g., with a Gamma Knife.

 Issues regarding corrective measures to solve a discrepancy and/or an error

 Personal participation by the qualified medical physicist in the delivery of a complex treatment fraction in exceptional situations that require the physical presence of the physicist for direct oversight of the technical and/or radiation safety aspects of the treatment. Examples include certain brachytherapy treatments, radioisotope therapy (such as radioimmunotherapy or selective internal radiation therapy) or intravascular brachytherapy

 Review of the safety requirements for the treatment of patients with implanted cardiac devices such as a pacemaker or defibrillator in proximity to treatment fields

• Selective internal radiation therapy (maximum of 1 unit per course of treatment, e.g., maximum of 1 unit for 89 Gy in 2 fractions)

• Special brachytherapy equipment developed by the qualified medical physicist to treat a particular patient

• When a special physics consultation is requested for a scenario not discussed above, a patient-specific medical necessity rationale is required

- CPT® code 77370 is approvable when ALL the following criteria are met:
  - The rationale is supplied by the provider
  - CPT® code 77370 has not been previously authorized within the same course of therapy

• The rationale explains the need for a medical physicist's expertise, which is not related to a treatment-planning summary, IMRT QA, or services described by another CPT® code

- A special physics consultation (CPT® code 77370) is not approvable for:
  - Deep inspiration breath-hold (DIBH)
  - Electron cutout measurements

 IMRT QA; however, 77370 is approvable if it is requested by a physician for a clinical scenario separate from development of an IMRT isodose plan

- In-vivo dosimetry
- Routine verification of dose distribution
- Secondary monitor unit calculations
- Services defined by another CPT® code
- SRS or SBRT with IMRT planning
- Treatment planning summaries
- Requests not identified as meeting the criteria outlined above will require a peer-to-peer physician review.

## Supervision and Handling (CPT® Code 77790)

#### Technical Component-Only Code

• 77790-Supervision, handling and loading of a radiation source

Supervision and handling represent the handling and loading of the radioactive source throughout the procedure. Handling and loading are billable for low dose rate (LDR) brachytherapy. Also, CPT® code 77790 is billable for therapeutic radiopharmaceuticals. CPT® code 77790 is a technical component-only code. There is no associated physician work.

#### Standards for CPT® Code 77790

• One (1) CPT® code 77790 is allowed per LDR brachytherapy or therapeutic radiopharmaceutical application, except for those scenarios where CPT® code 77790 is considered bundled with the treatment delivery such as CPT® codes 77750, 77761-77763, 77778, 77789, and 79101-79445.

## SIMULATIONS

CPT® Codes 77280, 77285, 77290, +77293 (claim only) Billable Group: 77285, 77290

#### **Professional and Technical**

A simulation is the process of determining and establishing the radiation therapy portals for a specific treatment volume without delivering a treatment. The process includes determination of the treatment position, necessity and fabrication of immobilization devices, and acquisition of the images and data necessary to develop a plan. There are three levels of simulation complexity:

- 77280- Simple; simulation of a single treatment area.
- 77285- Intermediate; simulation of two separate treatment areas.

• **77290-** Complex; simulation of three or more treatment areas; or any number of treatment areas if any of the following are involved: particle therapy, rotation or arc therapy, complex blocking, custom shielding blocks, brachytherapy, hyperthermia probe verification, or any use of contrast materials.

The level of complexity billed for each simulation service is determined by the number of treatment areas unless an additional item listed in the complex simulation descriptor is met at the time of simulation.

Simulations may involve several types of equipment, e.g., treatment table, conventional simulator, or CT-based simulator. In some circumstances such as skin cancer, no equipment may be needed. Although multiple simulations may occur during a course of therapy, no more than one simulation should be reported on the same date of service except for brachytherapy, which allows for two (2) simulations, if performed, for verification of source placement on the same date.

#### Simulation (CPT<sup>®</sup> codes 77280, 77285, and 77290) -

These simulations include establishment of the patient's treatment position (supine, prone, decubitus, arms akimbo, etc.). They may also include the placement of reference marks to delineate the area to be treated and may include the creation of custom immobilization devices (Aquaplast masks, Alpha Cradles®, Vac-Lok<sup>™</sup>, etc.) and gantry and table parameters. Items such as the use of contrast and complex treatment devices may elevate the level of simulation to complex (CPT® code 77290). When contrast or complex immobilizations are not utilized, the level of simulation is based on the number of treatment areas and/or level of billable immobilization devices (breast board, etc.).

• **Simple simulation (CPT® code 77280)** – A simple simulation (CPT® code 77280) on the first day can be charged for an electron boost to verify patient setup including the block location, block design, gantry clearance, and isocenter.

• A simple simulation should NOT be reported daily for placement of the treatment field. For example, if a dermatologist performs a simple simulation in preparation for the delivery of 25 fractions of superficial radiation therapy for a skin cancer, then a total of only one unit rather than 26 units of CPT® code 77280 should be billed.

• Verification Simulation (CPT® Code 77280) – Verification simulations are coded as simple simulations (CPT® Code 77280) regardless of the number of areas included in the verification process. This process includes verification of port blocking, isocenter placement and whether the patient is in the proper treatment position. For this process to be complete, all ports must be imaged, reviewed, and approved by a Radiation Oncologist prior to the start of the patient's treatment. Image-guided radiation therapy (IGRT) on the same date of service as verification simulation must be separate and distinct from the verification simulation process of imaging non-IMRT fields with corresponding blocking. Verification simulations for IMRT planning are considered bundled into IMRT planning CPT® code 77301 and therefore are not separately billable.

#### Standards for Simulation Codes:

• Only one simulation charge is allowed per date of service except for brachytherapy treatments delivered twice per day. This exception only applies if the work is performed and documented.

• One (1) initial simulation (CPT<sup>®</sup> codes 77280-77290) may be approved per modality except for courses with IMRT planning. Simulations for IMRT planning are bundled into IMRT planning (CPT® code 77301) and therefore are not separately billable.

• Verification simulations are billable as simple simulations (CPT® code 77280) only. Verification simulations are not billable with IMRT courses of therapy. For 2D and 3D treatments, one (1) verification simulation (CPT® code 77280) may be approved per phase of treatment when IGRT is not authorized. If IGRT (such as CPT® code 77387) is authorized for a particular phase of treatment, then a verification simulation may be necessary prior to treatment to confirm positioning of the isocenter and customized blocking. CPT® code 77280 may be approved in addition to IGRT for 3D if it is specifically requested and a clinical rationale is provided.

• Only 1 verification simulation is allowed per phase of treatment.

• For high dose rate (HDR) brachytherapy treatments, one (1) verification simulation (CPT<sup>®</sup> code 77280) may be approved per treatment. Additional services may be requested and will be reviewed for medical necessity based on the individual patient's circumstances.

• It is the responsibility of the treating physician to submit the appropriate billing codes and quantities for simulations when multiple sites will be treated with two-dimensional conventional radiation therapy or three-dimensional conformal radiation therapy.

# TREATMENT DEVICES

CPT® Codes 77332, 77333, 77334, and 77338

### Treatment Devices (CPT® Codes 77332, 77333, and 77334) Billable group: 77332, 77333, 77334

### Professional and Technical

There are many diverse types of treatment devices used in radiotherapy delivery. Examples include immobilization devices which help establish and maintain a reproducible treatment position for a patient undergoing radiation therapy. These may include Aquaplast® masks, Alpha Cradles®, Vac-Lok<sup>™</sup>, etc. Other examples of treatment devices include beam-modifying devices such as blocks, stents, bolus, multileaf collimators, wedges, compensators, molds, and casts.

- **77332-** Treatment devices, design and construction; simple (simple block, simple bolus).
- **77333-** Treatment devices, design and construction; intermediate (multiple hand blocks, stents, bite blocks, special bolus)
- **77334-** Treatment devices, design and construction; complex (irregular blocks, special shields, compensators, wedges, molds or casts).

Not Billable	Simple-77332	Intermediate- 77333	Complex-77334
<ul> <li>Rings</li> <li>Shoulder retractor</li> <li>Pillows</li> <li>Knee sponges</li> <li>Head rests</li> <li>Wingboards</li> <li>Bellyboards</li> <li>Prone pillows</li> </ul>	<ul> <li>Non-custom bolus</li> <li>Vaginal cylinder</li> <li>Prostate template/grid for interstitial needle placement</li> <li>Tandem &amp; ovoid</li> <li>Skin HDR applicator</li> <li>Breast board</li> <li>Asymmetric jaws</li> <li>Rectal balloon (standard filled)</li> <li>Pre-made electron cutout</li> <li>External eye shields</li> </ul>	<ul> <li>Bite block</li> <li>Testicular shield</li> <li>Custom bolus</li> </ul>	<ul> <li>IMRT Compensators</li> <li>Custom multileaf collimator (MLC)</li> <li>Aquaplast masks</li> <li>Custom cradles/bags</li> <li>SRS Headframe</li> <li>Custom molds</li> <li>Wedges</li> <li>Rectal balloon (custom filled)</li> <li>Internal eye shields</li> <li>Any custom-made device</li> </ul>
Custom is defined as any item molded or created for a particular patient, which cannot be utilized for another patient's treatment. Custom devices may have the ability to be redesigned for			

utilized for another patient's treatment. Custom devices may have the ability to be redesigned for another patient later (i.e., Vac-Lok<sup>™</sup>).

Multiple beam modification devices per port of entry are not billable. Only one beammodifying treatment device is billable per port. For example, a multileaf collimator (MLC), wedge, and bolus all modifying a single port is billable as a quantity of one (1) at the level of the highest billable device. Mirrored devices occur when the treatment fields are parallel opposed, and the devices are a mirror image of each other. A mirrored pair of devices is billable as one professional and one technical device between the two ports. If the devices between the parallel opposed fields are different, then one device per port is billable.

Multiple immobilization devices are allowed as billable on the same day of service. For example, a breast board and a Vac-Lok<sup>™</sup> are two devices that are both billable. The Vac-Lok<sup>™</sup> is complex (CPT® code 77334) and the breast board (when components associated with the device are not removed) is simple (CPT® code 77332). Also, an Aquaplast® mask (CPT® code 77334) and a bite block (CPT® code 77333) may be billed on the same date of service.

A rectal balloon, which is a disposable device, is billable as a complex device but only as a quantity of one (1) per course of therapy when the fill of the balloon is customized to the patient's anatomy. If the fill of the balloon is standard, then the rectal balloon is billable as a simple device and as a quantity of one (1) per course of therapy. Although a new rectal balloon may be utilized daily, only one balloon is billable per course of treatment.

Complex treatment devices (CPT® code 77334) are billable per individually documented IMRT compensator utilized for treatment. CPT® code 77334 is not billable for intensity modulated radiation therapy (IMRT) devices that are a multileaf collimator (MLC). MLC-based IMRT devices are billable as CPT® code 77338 and have a quantity of one (1) per IMRT plan.

#### Standards for CPT® Codes 77332, 77333, and 77334

- Immobilization devices are billable as many times as they are created
- One (1) complex treatment device (CPT® code 77334) may be approved for each external beam course of therapy for an immobilization device created during simulation. If an immobilization device is not created by the provider, then it should not be billed for.

• For brachytherapy, one (1) treatment device may be approved for each placement when there is a change in the device utilized and medical necessity to support the change. Utilization of the same device, size, and type, for each fraction of brachytherapy is billable only once at the initial placement. Per the American Society for Radiation Oncology (ASTRO), a device that is left in place for more than one fraction is billed only once.

• One (1) complex treatment device (CPT® code 77334) may be approved for each prostate external beam course of therapy for a rectal balloon when the balloon is custom filled to the patient's anatomy. If the rectal balloon uses a standard fill, one (1) simple treatment device (CPT® code 77332) may be approved. If a rectal balloon is not utilized for treatment, then authorization should not be requested.

• Beam-modifying devices: only one device is billable per port/field.

• A mirrored, parallel opposed pair of devices is billable as a quantity of one (1).

• For dosimetry/planning services, beam-modifying treatment devices may be approved up to the maximum number below per phase of treatment and documentation is present to support each device.

- 2D, 3D, and IMRT complex treatment device is ten (10).
- Proton beam therapy (PBT) is ten (10)
- Stereotactic body radiation therapy (SBRT) is ten (10)
- Low dose rate (LDR) brachytherapy is one (1)
- High dose rate (HDR) brachytherapy is one (1)
- Selective internal radiation therapy (SIRT) is (2) for HCPCS code C26216
  - For example, if one unit of CPT® code 77334 is requested for an immobilization device that was created during simulation and 10 units of CPT® code 77334 are requested for a complex treatment device (i.e., MLC) for planning 2D-CRT, 3D-CRT, IMRT, PBT, or SBRT, then a cumulative total of 11 units of CPT® code 77334 would be requested.
- Additional services may be requested and will be reviewed for medical necessity based on the individual patient's circumstances.

## IMRT Planning/Treatment Device (CPT® Code 77338)

#### Professional and Technical

• **77338-** Multileaf collimator (MLC) device(s) for intensity modulated radiation therapy (IMRT), design and construction per IMRT plan

The IMRT planning/treatment device code was developed to account for the work and practice expense unique to the design and construction of an MLC for IMRT planning/treatment. This code is to be billed only once per MLC-based IMRT plan, regardless of the number of ports constructed for the plan. An IMRT device (CPT® code 77338) may be billed for a boost plan even if the IMRT plan (CPT® code 77301) is not billable. For compensator based IMRT, each compensator is billed using the complex treatment device code (CPT® code 77334).

#### Standards for CPT® Code 77338

- CPT® code 77338 is billable as a quantity of one (1) only.
- CPT® code 77338 may only be billed one (1) time per IMRT plan creation.
- CPT® code 77338 is billable in conjunction with an IMRT plan (CPT® code 77301) only and not with any other type of isodose planning. In the event of an IMRT boost, the treatment device is allowed even though the additional plan may not be allowed. This code is reserved for MLC-based IMRT devices only.

• One (1) IMRT treatment device (CPT® code 77338) may be approved per phase of medically necessary, MLC-based IMRT planning/treatment. This includes proton beam therapy (PBT), stereotactic radiosurgery (SRS), and stereotactic body radiation therapy (SBRT) with IMRT planning. Also, it includes IMRT treatment.