Radiology: Oncology

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This section describes policies and guidelines for billing radiation oncology procedures. Radiation oncology services include initial consultation, clinical treatment planning, simulation, medical radiation physics, dosimetry, measurement devices, special services, and clinical treatment management procedures. They include normal follow-up care during the course of treatment and for three months following its completion.

Consultation: Clinical Management

Preliminary consultation, evaluation of the patient prior to the decision to treat, or full medical care (in addition to treatment management) when provided by the therapeutic radiologist should be identified by the appropriate Evaluation and Management (E&M) procedure codes.

Outpatient Visits and Radiation or Radiopharmaceutical Therapy

When recipients are being treated with radiation or radiopharmaceutical therapy and the provider is utilizing radiation oncology codes 77261 thru 77799 or 79005 thru 79999 for reimbursement, those same providers may submit claims for E&M codes ‹‹99202›› thru 99215 ‹‹(with 99417 when applicable)›› or 99241 thru 99245; however, the claim form must provide documentation establishing the medical necessity for the outpatient visit.

Radiation Oncology and Radiopharmaceutical Therapy

Consult the CPT® code book for guidance in billing radiation oncology (codes 77261 thru 77799) and radiopharmaceutical therapy (codes 79005 thru 79999). These procedures do not cover the provision of radium or other radioactive materials.

Required Modifiers

The following radiation oncology CPT codes are split-billable and must be billed with modifiers 26 and TC:

CPT Code	Description
77306	Teletherapy isodose plan; simple, includes basic dosimetry calculation(s)
77307	Teletherapy isodose plan; complex, includes basic dosimetry calculation(s)
77316	Brachytherapy isodose plan; simple, includes basic dosimetry calculation(s)
77317	Brachytherapy isodose plan; intermediate, includes basic dosimetry calculation(s)
77318	Brachytherapy isodose plan; complex, includes basic dosimetry calculation(s)

Allowable Modifiers

The following radiation oncology CPT codes are split-billable and may be billed with modifiers 26 and TC:

CPT Code	Description
77778	Interstitial radiation source application, complex, includes supervision, handling, loading of radiation source, when performed
77789	Surface application of low dose rate radionuclide source

CPT Code 77338 Special Billing Instructions

CPT code 77338 (multi-leaf collimator [MLC] device[s] for intensity modulated radiation therapy [IMRT], design and construction per IMRT plan) is split-billable. When billing for both the professional and technical service components of a split-billable procedure, a modifier is neither required nor allowed. When billing for only the professional component, use modifier 26. When billing for only the technical component, use modifier TC. Modifier U7 is allowed.

Note: Modifier 99 must not be billed in conjunction with modifier 26 and modifier TC. The claim will be denied.

Radiation Treatment Codes Not Split-Billable

The following radiology oncology codes for professional and technical services are not split-billable and must not be billed with modifier 26 or TC.

CPT Code	Description
77371	Radiation treatment delivery, stereotactic radiosurgery; Cobalt 60 based
77372	Radiation treatment delivery, stereotactic radiosurgery; linear accelerator based
77373	Stereotactic body radiation therapy, treatment delivery, per fraction to one or more lesions
77401	Radiation treatment delivery, superficial and/or ortho voltage
77402	Radiation treatment delivery, ≥ 1 MeV; simple
77407	Radiation treatment delivery, ≥ 1 MeV; intermediate
77412	Radiation treatment delivery, ≥ 1 MeV; complex

Radiation Treatment Codes Not Split-Billable (continued)

CPT Code	Description
77417	Therapeutic radiology port image(s)
77427	Radiation treatment management, five treatments
77432	Stereotactic radiation treatment management of cerebral lesion(s) (complete course of treatment consisting of one session)
77435	Stereotactic body radiation therapy, treatment management
77520	Proton treatment delivery; simple, without compensation
77522	Proton treatment delivery; simple, with compensation
77523	Proton treatment delivery; intermediate
77525	Proton treatment delivery; complex
77750	Infusion or instillation of radioelement solution
77761	Intracavitary radiation source application; simple
77762	Intracavitary radiation source application intermediate
77763	Intracavitary radiation source application complex
77790	Supervision, handling, loading of radiation source
77799	Unlisted procedure, clinical brachytherapy

CPT codes 77520 thru 77525 Billing Restriction

CPT codes 77520 thru 77525 are not reimbursable when claimed with ICD-10-CM code C61 (malignant neoplasm of prostate) or D07.5 (carcinoma in situ of prostate).

Clinical Brachytherapy Radioactive Materials

The radiologist is responsible for the supervision and dose interpretation of the radioactive materials. CPT procedure codes 77750 thru 77763, 77790 and 77799 are not split-billable and must not be billed with modifier 26 or TC. If the radiologist also actively participates in the surgical procedure throughout the course of the surgery, it may be appropriate to bill the surgical procedure with modifier 80 (assistant surgeon).

CPT codes 77767, 77768, 77770 thru 77772 and 77789 may be split-billed with modifiers 26 and TC. When billing for both the professional and technical components, a modifier is neither required nor allowed.

In cases of clinical brachytherapy involving a radiologist and a surgeon, providers must bill using the appropriate modifier to avoid duplicating or overlapping reimbursement for services.

The following brachytherapy source codes are reimbursable: C2616, C2634, C2635, C2637 thru C2641, C2644, C2645, C2698, C2699 and Q3001. Claims for these codes must be billed “By Report” and must include an invoice with the actual cost of the substance. These codes are not split-billable and must not be billed with any modifier.

When billing code C2645, the report must also include documentation of the dose used, the size used per mm^2 and the size of the tumor.

Brachytherapy Codes C2698, C2699 Special Billing Instructions

HCPCS codes C2698 (brachytherapy source, stranded, not otherwise specified, per source) and code C2699 (brachytherapy source, non-stranded, not otherwise specified, per source) are non-specific radiology services. Providers are no longer required to document the procedure performed; however, an invoice for reimbursement must be attached to the claim.

Provision of Unlisted Radiopharmaceutical(s)

Provision of unlisted diagnostic radiopharmaceutical(s) (HCPCS code A4641) is not split-billed and must not be billed with modifier 26 or TC. The provider who supplies the materials used in the nuclear medicine procedure should bill for this service. An invoice with the actual cost of the materials must be attached to the claim.

Note: Bill for these materials, using the appropriate HCPCS codes, only if the provider supplies the materials.

Intraoperative Radiation Treatment Delivery

CPT codes 77424 (intraoperative radiation treatment delivery x-ray, single treatment session) and 77425 (intraoperative radiation treatment delivery, electrons, single treatment session) must be billed “By Report.”

Radiation Treatment Management

Physicians and physician groups must bill CPT code 77427 (radiation treatment management, five treatments) using the “from-through” method. This code is not split-billable and must not be billed with modifier 26 or TC.

CPT code 77469 (intraoperative radiation treatment management) represents only the intraoperative radiation treatment management and does not include medical evaluation and management outside of that session.

Stereotactic Radiation Therapy

The same physician should not report CPT code 32701 (thoracic target[s] delineation for stereotactic body radiation therapy [SRS/SBRT]) in conjunction with codes 77261 thru 77799.

Local Hyperthermia Cancer Treatment

The following CPT procedure codes should be used for billing local hyperthermia with radiation therapy as treatment for selected cancer cases.

CPT Code	Description
77600	Hyperthermia, externally generated; superficial (ie, heating to a depth of 4 cm or less)
77610	Hyperthermia generated by interstitial probe(s); 5 or fewer interstitial applicators
77615	Hyperthermia generated by interstitial probe(s); more than 5 interstitial applicators

Coverage for the above procedures includes:

- Management during the course of therapy
- Follow-up care for three months after completion
- Physics planning and interstitial insertion of temperature sensors
- Use of external or interstitial heat-generating sources

Note: Local hyperthermia is a benefit only as an adjunct to radiation therapy and is not covered when billed separately or in connection with chemotherapy.

Initial Consultation/ Radiation Therapy

Initial consultation (CPT codes 99241 thru 99255) and radiation therapy may be billed separately from the hyperthermia treatment.

TAR and "By Report" Codes

CPT codes 77600, 77610 and 77615 are subject to authorization through the *Treatment Authorization Request* (TAR) process. These codes are "By Report," and claims should be accompanied by a description of the specific services provided on the date of service billed.

Therapeutic Radiopharmaceutical Agents

Radiopharmaceuticals are radioactive agents that may be used as therapeutic agents in the treatment of a variety of diseases.

Refer to "Diagnostic Radiopharmaceutical Agents" in the *Radiology: Nuclear Medicine* section of the appropriate Part 2 manual.

"Per Treatment Dose" Agents

The following therapeutic radiopharmaceutical agents include the wording "per treatment dose" in their descriptor and reimbursement for the following HCPCS codes is limited to one unit (one treatment dose): A9543 and A9604.

Other Agents

The following therapeutic radiopharmaceutical agents include "millicuries" in their descriptor, and reimbursement for the following HCPCS codes is allowed as per their descriptor (exception A9606, see below): ‹‹A9513››, A9517, A9527, A9530, A9563, A9564 and A9600.

Code A9606 (radium Ra-223 dichloride, therapeutic, per microcurie) requires clinical information documenting the agent used, dose and strength administered, and the condition being treated entered into either the *Remarks* field (Box 80)/*Additional Claim Information* field (Box 19) or attached to the claim form. An invoice is required for pricing.

Billing

The therapeutic radiopharmaceutical agent codes are non split-billable and must not be billed with any modifier. An invoice with the acquisition cost of the substance(s) must be attached to the claim.

No Price on File

For codes listed on the Medi-Cal website without a price, an invoice is required for pricing purposes. The invoices for these items must be dated prior to the date of service or the claim will be denied.

Ibritumomab Tiuxetan

Yttrium-90 (Y-90) ibritumomab tiuxetan injection (HCPCS code A9543) and Indium-111 (In-111) ibritumomab tiuxetan (HCPCS code A9542) are reimbursed when used to treat patients with relapsed or refractory low-grade follicular or transformed B-cell non-Hodgkin lymphoma (NHL) refractory to treatment with rituximab. The use of ibritumomab tiuxetan is subject to authorization and is limited to a maximum Units/Visits/Studies (U/V/S) of one unit for each code when billed by the same provider, for the same recipient and date of service.

Imaging and Therapy Protocol

Providers may be reimbursed for In-111 ibritumomab tiuxetan and Y-90 ibritumomab tiuxetan when treatment is administered under the following schedule:

Day 1: Imaging

- I.V. infusion of 250 mg/m² of rituximab
- Within four hours – I.V. injection of In-111 over a period of 10 minutes

Assessment of biodistribution:

- 1st image – 2 to 24 hours after injection of In-111 ibritumomab tiuxetan
- 2nd image – 48 to 72 hours after injection of In-111 ibritumomab tiuxetan
- 3rd image – 90 to 120 hours after injection of In-111 ibritumomab tiuxetan (optional)

Days 7 thru 9: Therapy

- I.V. infusion of 250 mg/m² of rituximab
- Within four hours – I.V. injection of Y-90 ibritumomab tiuxetanover a period of 10 minutes, not to exceed 32 mCi
  - 0.4 mCi/kg for patients with normal platelet counts
  - 0.3 mCi/kg for patients with platelet count of 100,000 – 149,000 cells/mm^3

Billing Requirements

Imaging Sequence

1. Rituximab 250 mg/m^2 may be billed with CPT code 96413 (chemotherapy administration, intravenous infusion technique; up to one hour, single or initial substance/drug) and 96415 (… each additional hour, one to eight hours).
2. CPT code 78802 (radiopharmaceutical localization of tumor or distribution of radiopharmaceutical agent[s]; whole body single day imaging) may be billed per scan to a maximum of three.

Therapy Protocol

1. Rituximab 250 mg/m^2 may be billed with CPT codes 96413 and 96415.
2. Y-90 ibritumomab tiuxetan may be billed with CPT codes 77750 (infusion or instillation of radioelement solution) and 77790 (supervision, handling, loading of radiation source).

HCPCS codes A9542 and A9543 are not split-billable and must not be billed with modifiers 26 or TC.

Authorization

A *Treatment Authorization Request* (TAR) is required for treatment with Y-90 ibritumomab tiuxetan and In-111 ibritumomab tiuxetan and must include the following:

- A pathological report of low-grade follicular or transformed B-cell NHL
- Documentation that the recipient has undergone a chemotherapy regimen that included rituximab and that the lymphoma was refractory or became refractory to the chemotherapy regimen; and
- Documentation that the recipient’s platelet count is not less than 100,000 cells/mm^3.

‹‹Lutetium Lu 177 dotatate (LUTATHERA®)

Lutetium Lu 177 dotatate binds to somatostatin receptors with highest affinity for subtype 2 receptors (SSRT2). Upon binding to somatostatin receptor expressing cells, including malignant somatostatin receptorpositive tumors, the compound is internalized. The beta emission from Lu 177 induces cellular damage by formation of free radicals in somatostatin receptor-positive cells and in neighboring cells.

Indications

All FDA-approved indications.

Dosage

FDA-approved dosages.

TAR Requirement

An approved *Treatment Authorization Request* (TAR) is required for reimbursement.

TAR Criteria

The TAR must include clinical documentation that demonstrates all of the following:

- Must be used for FDA-approved indications and dosages.
- Patient must be 18 years of age or older.
- Must be prescribed by or in consultation with an oncologist, endocrinologist or gastroenterologist.
- Patient has a diagnosis of gastroenteropancreatic neuroendocrine tumors (GEP-NETs), including foregut, midgut and hindgut neuroendocrine tumors.
- Patient has inoperable disease that had metastasized or were locally advanced.
- Disease is well-differentiated with Ki67 index less than or equal to 20 percent.
- Patient has disease progression despite previous treatment with 20-30mg octreotide LAR every three to four weeks for a minimum of 12 weeks.
- Patient’s disease is somatostatin receptor-positive in all tumor lesions (OctreoScan uptake greater than or equal to normal liver).
- Karnofsky Performance Score (KPS) greater than or equal to 60.
- Patient has creatinine clearance greater than or equal to 50 mL/min and hemoglobin concentration greater than 8.0 g/dL.

Patient did not receive any long-acting somastatin analogs (for example, long-acting octreotide) at least four weeks and short-acting octreotide at least 24 hours prior to each LUTATHERA dose.››

- ‹‹Patient did not have prior treatment with peptide receptor radionuclide therapy (PRRT).
- Patient had no prior external radiation therapy to more than 25 percent of the bone marrow.
- Female patients have a negative pregnancy test.

Approval duration is limited to one year (limited to four doses).

Reauthorization is not approvable.

Age Limits

Must be 18 years or older.

Billing

HCPCS code A9513 (Lutetium Lu 177, dotatate, therapeutic, 1 mCi).

One (1) unit of A9513 equals 1 mCi of Lutetium Lu 177, dotatate injection solution.

Prescribing Restrictions

Frequency of billing equals 7.4 GBq (200 mCi)/200 units every eight weeks for a total of four doses. Limited to one four-dose regimen per lifetime.

Maximum billing units equals 7.4 GBq (200 mCi)/200 units.››

Radium Ra-223 Dichloride

Radium Ra-223 dichloride is an alpha particle-emitting radioactive therapeutic agent for intravenous (IV) use.

Indications

Radium Ra-223 dichloride is used to treat castration-resistant prostate cancer in patients with symptomatic bone metastases and no known visceral metastatic disease.

Age

18 years and older.

Dosage

55kBq (1.49 microcuries/kg body weight) given IV every four weeks for a maximum of six injections. The safety and efficacy beyond six injections has not been studied.

Required Codes

The following ICD-10-CM diagnosis code is required for reimbursement:

C61 (Malignant neoplasm of prostate)

Authorization

An approved *Treatment Authorization Request* (TAR) is required for reimbursement.

The TAR must include clinical documentation that demonstrates the following:

- The service is medically necessary to treat castration-resistant prostate cancer with symptomatic bone metastases and no known visceral metastatic disease.
- The physician's legible, complete, and signed treatment plan/order for radium Ra-223 dichloride.

Billing

HCPCS code A9606 (Radium Ra-223 dichloride, therapeutic, per microcurie).

One (1) unit of A9606 equals 1 microcurie (µCi) of radium Ra-223 dichloride

Samarium Sm-153 Lexidronam

Samarium Sm-153 lexidronam is a therapeutic agent consisting of radioactive samarium and atetraphosphonatechelator, ethylenediamine-tetramethylenephosphonic acid. Samarium Sm-153 lexidronam has an affinity for bone and concentrates in areas of bone turnover in association with hydroxyapatite. In clinical studies employing planar imaging techniques, more samarium Sm-153 lexidronam accumulates in osteoblastic lesions than in normal bone with a lesion-to-normal bone ratio of approximately five. The mechanism of action of samarium Sm-153 EDTMP in relieving the pain of bone metastases is unknown.

Indications

Samarium Sm-153 lexidronam is indicated for relief of pain in patients with confirmed osteoblastic metastatic bone lesions that enhance on radionuclide bone scan.

Dosing

The recommended dose of samarium Sm-153 lexidronam is 1.0 mCi/kg, administered intravenously over a period of one minute. Dose adjustment in patients at the extremes of weight have not been studied. Caution should be exercised when determining the dose in very thin or very obese patients. Doses greater than 150 millicuries are allowed if documentation shows that the patient's weight exceeds 150 kg. Usage is limited to recipients 16 years of age or older and one treatment dose per day.

Billing

HCPCS code A9604 (samarium Sm-153 lexidronam, therapeutic, per treatment dose, up to 150 millicuries).

Implantable Tissue Marker

HCPCS codes A4648 (tissue marker, implantable, any type, each) and A4650 (implantable radiation dosimeter, each) are separately reimbursable only when billed with one of the following CPT codes.

CPT Code	Description
32553	Placement of interstitial device(s) for radiation therapy guidance (e.g., fiducial markers, dosimeter), percutaneous, and intra-thoracic, single or multiple
49411	Placement of interstitial device(s) for radiation therapy guidance (e.g., fiducial markers, dosimeter), percutaneous, intra-abdominal, intra-pelvic, (except prostate), and/or retroperitoneum, single or multiple
55876	Placement of interstitial device(s) for radiation therapy guidance (e.g., fiducial markers, dosimeter), percutaneous, and prostate, single or multiple

Billing

HCPCS codes A4648 (tissue marker, implantable, any type, each) and A4650 (implantable radiation dosimeter, each) are not split-billable and must not be billed with any modifier. For reimbursement, an invoice with the actual cost of the item must be attached to the claim.

Iobenguane I-131 (Azedra)

Azedra is an I-131 labeled iobenguane. Iobenguane is similar in structure to the neurotransmitter norepinephrine (NE) and is subject to the same uptake and accumulation pathways as NE. Iobenguane is taken up by the NE transporter in adrenergic nerve terminals and accumulates in adrenergically innervated tissues, such as the heart, lungs, adrenal medulla, salivary glands, liver, and spleen as well as tumors of neural crest origin. Pheochromocytoma and paraganglioma (PPGL) are tumors of neural crest origin that express high levels of the NE transporter on their cell surfaces. Following intravenous administration, Azedra is taken up and accumulates within pheochromocytoma and paraganglioma cells, and radiation resulting from radioactive decay of I-131 causes cell death and tumor necrosis.

Indications

All FDA-approved indications.

Dosage

FDA-approved dosages.

Age Limits

Must be 12 years of age and older.

Authorization

An approved *Treatment Authorization Request* (TAR) is required for reimbursement. The TAR must include clinical documentation to establish the following:

- FDA-approved indications and dosages
- Patient must be 12 years of age or older
- Must have a documented diagnosis of iobenguane scan positive, unresectable, locally advanced or metastatic pheochromocytoma or paraganglioma, and
- Iobenguane I-131 is being used as a primary treatment if prior MIBG scan and
- The member is not a candidate for chemotherapy or other curative therapies
- Must verify a negative pregnancy status in females of child-bearing age
- Platelet count must not be < 80,000/mcL or absolute neutrophil count must not be less than 1,200/mcL.

Coverage is provided at the FDA-approved dosage for one dosimetric and up to two therapeutic doses to be administered within six months of approval.

Billing

HCPCS code A9590 (Iodine I-131 iobenguane, 1 mCi)

Suggested Codes

ICD-10 CM diagnosis codes C74.10, C74.11, C74.12, C75.5, C7A.1, C7A.8, D35.00, D35.01, D35.02, D35.6, D44.7, Z51.0.

Prescribing Restrictions

Frequency of billing equals 90 days.

Legend

Symbols used in the document above are explained in the following table.

Symbol	Description
‹‹	This is a change mark symbol. It is used to indicate where on the page the most recent change begins.
››	This is a change mark symbol. It is used to indicate where on the page the most recent change ends.