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2024 Brachytherapy Publication

Radiation Therapy

RT-BRAC-HH

Last Review Date: 07/01/2024
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2024 Brachytherapy Blood, Bone Marrow and Lymphatic System Cancer

Radiation Therapy

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Brachytherapy for Blood, Bone Marrow and Lymphatic System Cancer

Acute Lymphoblastic Leukemia • Acute Myeloid Leukemia • Bone Cancer • Chronic Lymphocytic Leukemia/Small Lymphocytic Lymphoma • Chronic Myeloid Leukemia • Hairy Cell Leukemia • Histiocytic Neoplasms • Systemic Light Chain Amyloidosis Guideline

Brachytherapy for acute lymphoblastic leukemia, acute myeloid leukemia, bone cancer, chronic lymphocytic leukemia/small lymphocytic lymphoma, chronic myeloid leukemia, hairy cell leukemia, systemic light chain amyloidosis and histiocytic neoplasms: [1] [5] [13] [14] [15] [16] [17] [11]

- The role of this therapy is uncertain/unclear in the current evidence. Requests for this therapy require review by a physician reviewer, medical director and/or the individual's healthplan.

B-Cell Lymphomas • Hodgkin Lymphoma • Multiple Myeloma • Primary Cutaneous Lymphomas • T-Cell Lymphomas • Waldenstrom Macroglobulinemia/Lymphoplasmacytic Lymphoma Guideline

Brachytherapy for b-cell lymphomas, hodgkin lymphoma, multiple myeloma, primary cutaneous lymphomas, t-cell lymphomas and waldenstrom macroglubinemia/lymphoplasmacytic lymphoma: [7] [10] [9] [12] [18] [8]

- The role of this therapy is uncertain/unclear in the current evidence. Requests for this therapy require review by a physician reviewer, medical director and/or the individual's healthplan.

Myelodysplastic Syndromes • Myeloid/Lymphoid Neoplasms with Eosinophilia and Tyrosine Kinase Gene Fusions • Myeloproliferative Neoplasms • Systemic Mastocytosis Guideline

Brachytherapy for myelodysplastic syndromes, myeloid/lymphoid neoplasms with eosinophilia and tyrosine kinase gene fusions, systemic mastocytosis and myeloproliferative neoplasms: [3] [6] [4] [2]

- The role of this therapy is uncertain/unclear in the current evidence. Requests for this therapy require review by a physician reviewer, medical director and/or the individual's healthplan.

LCD 37779
See also, **LCD 37779**: Intraoperative Radiation Therapy at https://www.cms.gov/medicare-coverage-database/search.aspx *if applicable to individual's healthplan membership*.

Brachytherapy Procedure Codes

Table 1. Brachytherapy Associated Procedure Codes

CODE	DESCRIPTION
77424	Intraoperative radiation treatment delivery, x-ray, single treatment session
77425	Intraoperative radiation treatment delivery, electrons, single treatment session
77750	Infusion or instillation of radioelement solution (includes 3-month follow-up care)
77761	Intracavitary radiation source application; simple
77762	Intracavitary radiation source application; intermediate
77763	Intracavitary radiation source application; complex
77767	Remote afterloading high dose rate radionuclide skin surface brachytherapy, includes basic dosimetry, when performed; lesion diameter up to 2.0 cm or 1 channel
77768	Remote afterloading high dose rate radionuclide skin surface brachytherapy, includes basic dosimetry, when performed; lesion diameter over 2.0 cm and 2 or more channels, or multiple lesions
77770	Remote afterloading high dose rate radionuclide interstitial or intracavitary brachytherapy, includes basic dosimetry, when performed; 1 channel
77771	Remote afterloading high dose rate radionuclide interstitial or intracavitary brachytherapy, includes basic dosimetry, when performed; 2-12 channels
77772	Remote afterloading high dose rate radionuclide interstitial or intracavitary brachytherapy, includes basic dosimetry, when performed; over 12 channels

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
0394T	High dose rate electonic brachytherapy, skin surface application, per fraction, includes basic dosimetry, when performed
0395T	High dose rate electonic brachytherapy, interstitial or intracavitary treatment, per fraction, includes basic dosimetry, when performed
G0458	Low dose rate (LDR) prostate brachytherapy services, composite rate

Brachytherapy Blood, Bone Marrow and Lymphatic System Cancer Summary of Changes

Brachytherapy blood, bone marrow and lymphatic system cancer guideline from 2023 to 2024 had the following changes:

- Added the following cancer types to the guideline:
  - Myeloid/lymphoid neoplasms with eosinophilia and tyrosine kinase gene fusions
  - Systemic Light Chain Amyloidosis
  - Systemic Mastocytosis

Brachytherapy Blood, Bone Marrow and Lymphatic System Cancer Definitions

Acute lymphoblastic leukemia (ALL) is a type of cancer of the blood and bone marrow where blood cells are made. The disease progresses rapidly and creates immature blood cells. The word "lymphocytic" in ALL refers to the white blood cells called lymphocytes. It is the most common type of cancer in children, and treatments result in a good chance for a cure. ALL can also occur in adults, though the chance of a cure is greatly reduced.

Acute myeloid leukemia (AML) is a type of myelogenous leukemia with rapid onset and progression that is marked by an abnormal increase in the number of myeloblasts, especially in bone marrow and blood, that is characterized by symptoms similar to those of acute lymphoblastic leukemia and that occurs chiefly during adulthood.

B-cell lymphoma is a type of cancer that forms in B-cells (a type of immune system cell). B-cell lymphomas may be either indolent (slow-growing) or aggressive (fast-growing). Most B-cell lymphomas are non-Hodgkin lymphomas. There are many different types of B-cell non-Hodgkin lymphomas. These include Burkitt lymphoma, chronic lymphocytic leukemia/small lymphocytic lymphoma (CLL/SLL), diffuse large B-cell lymphoma, follicular lymphoma, and mantle cell lymphoma.

Brachytherapy is a form of radiation therapy, which utilizes a radioactive source placed in or in close proximity to the tumor. It can be done by placing the radioactive source on the surface of the body or within a body cavity depending on the area to be treated. Temporary brachytherapy places a delivery device, such as a catheter, needle, or applicator into the tumor. Medical imaging helps position the radiation sources. The doctor may insert the delivery device into a body cavity such as the vagina or uterus (intracavitary). Or, the doctor may insert an applicator (needle or catheter) into body tissues (interstitial). High dose-rate (HDR) treatments deliver radiation over 10 to 20 minutes per session. Low dose-rate (LDR) treatments deliver radiation over 20 to 50 hours. Pulsed dose-rate (PDR) treatments deliver radiation in periodic pulses.

Chronic lymphocytic leukemia (CLL) is the most common type of leukemia in adults. It's a type of cancer that starts in cells that become certain white blood cells (called lymphocytes) in the bone marrow. The cancer (leukemia) cells start in the bone marrow but then moves into the blood.

Chronic myeloid leukemia (CML), also known as chronic myelogenous leukemia, is a type of cancer that starts in certain blood-forming cells of the bone marrow.

Hairy cell leukemia is a chronic leukemia that is usually of B-cell origin and is characterized by malignant cells with a ciliated appearance.

Histiocytic neoplasm is a group of rare disorders in which too many histiocytes (a type of white blood cell) build up in certain tissues and organs, including the skin, bones, spleen, liver, lungs, and lymph nodes.

Hodgkin lymphoma is a malignant lymphoma marked by the presence of Reed-Sternberg cells and characterized by progressive enlargement of lymph nodes, spleen and liver and progressive anemia.

Lymphoid neoplasm is a neoplasm composed of a lymphocytic cell population which is usually malignant (clonal) by molecular genetic and/or immunophenotypic analysis. Lymphocytic neoplasms include Hodgkin and non-Hodgkin lymphomas, acute and chronic lymphocytic leukemias, and plasma cell neoplasms.

Lymphoplasmacytic lymphoma, also called Waldenström macroglobulinemia, is indolent (slow-growing) type of non-Hodgkin lymphoma marked by abnormal levels of IgM antibodies in the blood and an enlarged liver, spleen, or lymph nodes.

Multiple myeloma is a blood cancer that develops in plasma cells in the bone marrow. Plasma cells are white blood cells that produce antibodies to protect the body from infection. In multiple myeloma, the plasma cells grow too much, crowding out normal bone marrow cells.

Myelodysplastic syndrome (MDS) is a type of cancer in which the bone marrow does not make enough healthy blood cells (white blood cells, red blood cells, and platelets) and there are abnormal cells in the blood and/or bone marrow. When there are fewer healthy blood cells, infection, anemia, or bleeding may occur.

Myeloid/Lymphoid Neoplasms with Eosinophilia is a stem cell leukemia/lymphoma with rearrangements involving chromosome 8p11 (FGFR1). These are aggressive, rare, pluripotent stem cell disorder with poor prognosis.
Myeloproliferative neoplasm is a group of diseases in which the bone marrow makes too many red blood cells, white blood cells, or platelets.
Primary bone cancer is cancer that forms in cells of the bone. Some types of primary bone cancer are chondrosarcoma, Ewing sarcoma, malignant fibrous histiocytoma, and osteosarcoma.
Primary cutaneous lymphoma are a heterogenous group of lymphoproliferative neoplasms, lymphatic proliferation is limited to the skin with no involvement of lymph nodes, bone marrow or viscera
Small lymphocytic lymphoma is a slow growing non-Hodgkin lymphoma that affects B cells (also known as B lymphocytes), which are specialized white blood cells that produce immunoglobulins (also called antibodies) that help protect against infection and disease.
Systemic light chain amyloidosis is a protein misfolding and metabolism disorder in which insoluble fibrils are deposited in various tissues, causing organ dysfunction and eventually death.
Systemic mastocytosis is a rare disease in which too many mast cells (a type of immune system cell) are found in the skin, bones, joints, lymph nodes, liver, spleen, and gastrointestinal tract.
T-Cell lymphoma is a type of cancer that forms in T-cells (a type of immune system cell). T-cell lymphomas may be either indolent (slow-growing) or aggressive (fast-growing). Most T-cell lymphomas are non-Hodgkin lymphomas. There are many different types of T-cell non-Hodgkin lymphomas. These include mycosis fungoides, anaplastic large cell lymphoma and precursor T-cell lymphoblastic lymphoma.
Waldenstrom macroglobulinemia is a rare, slow-growing type of non-Hodgkin lymphoma. It's a blood cell cancer that starts in malignant B-cells.

Brachytherapy Blood, Bone Marrow and Lymphatic System Cancer References

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2024 Brachytherapy Breast Cancer

Radiation Therapy

Last Review Date: 07/01/2024
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Guideline Initiated: 06/30/2019

Brachytherapy for Breast Cancer

Ductal Carcinoma in Situ (DCIS) and Invasive Breast Cancer Guideline

Brachytherapy for ductal carcinoma in situ (DCIS) and invasive breast cancer is considered medically appropriate when the medical record demonstrates **ALL** of the following: [1] [5] [2] [3] [4] [6]

I. **10 fractions or less** for **ANY** of the following:

   A. Definitive therapy to the tumor bed **ONLY**

   B. Accelerated partial breast irradiation (APBI) for age 50 years or older **AND** Breast Cancer Gene (BRCA) negative for **ANY** of the following:

      1. Ductal Carcinoma In Situ (DCIS), screening detected of 2.5 cm or less and **ALL** of the following:

         a. Low/intermediate nuclear grade

         b. Negative margin width of 3 mm or more

      2. Invasive ductal carcinoma and **ALL** of the following:

         a. Estrogen receptor (ER) positive

         b. Negative margin widths of 2 mm or more

c. **NO** lymphovascular invasion (LVI)

d. pT1 disease

II. Physical ability and clinical status of **ANY** of the following:

- Eastern cooperative oncology group (ECOG) performance status grade of 1 or less
- Karnofsky performance status (KPS) grade of 80 or more[1]

LCD 37779

See also, **LCD 37779**: Intraoperative Radiation Therapy at https://www.cms.gov/medicare-coverage-database/search.aspx *if applicable to individual's healthplan membership*.

Brachytherapy Procedure Codes

Table 1. Brachytherapy Associated Procedure Codes

CODE	DESCRIPTION
77424	Intraoperative radiation treatment delivery, x-ray, single treatment session
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77767	Remote afterloading high dose rate radionuclide skin surface brachytherapy, includes basic dosimetry, when performed; lesion diameter up to 2.0 cm or 1 channel
77768	Remote afterloading high dose rate radionuclide skin surface brachytherapy, includes basic dosimetry, when performed; lesion diameter over 2.0 cm and 2 or more channels, or multiple lesions
77770	Remote afterloading high dose rate radionuclide interstitial or intracavitary brachytherapy, includes basic dosimetry, when performed; 1 channel
77771	Remote afterloading high dose rate radionuclide interstitial or intracavitary brachytherapy, includes basic dosimetry, when performed; 2-12 channels
77772	Remote afterloading high dose rate radionuclide interstitial or intracavitary brachytherapy, includes basic dosimetry, when performed; over 12 channels
77778	Interstitial radiation source application, complex, includes supervision, handling, loading of radiation source, when performed
77789	Surface application of low dose rate radionuclide source

[1]The Lansky performance status scale can be utilized for ages 16 or less.

CODE	DESCRIPTION
0394T	High dose rate electonic brachytherapy, skin surface application, per fraction, includes basic dosimetry, when performed
0395T	High dose rate electonic brachytherapy, interstitial or intracavitary treatment, per fraction, includes basic dosimetry, when performed
G0458	Low dose rate (LDR) prostate brachytherapy services, composite rate

Brachytherapy Breast Cancer Summary of Changes

Brachytherapy Breast Cancer guideline from 2023 to 2024 had the following changes:

- Added 10 fractions or less for ages 50 and older with BRCA negative and ANY of the following:
  - Ductal Carcinoma In Situ (DCIS), screening detected of 2.5 cm or less and **ALL** of the following:
    - Low/intermediate nuclear grade
    - Negative margin width of 3 mm or more
  - Invasive ductal carcinoma and **ALL** of the following:
    - Estrogen receptor (ER) positive
    - Negative margin widths of 2 mm or more
    - **NO** lymphovascular invasion (LVI)
    - pT1 disease

Brachytherapy Breast Cancer Definitions

Accelerated partial breast irradiation (APBI) is a type of radiation therapy given only to the part of the breast that has cancer in it. Accelerated partial-breast irradiation gives a higher dose over a shorter time than is given in standard whole-breast radiation therapy and may be given using internal or external sources of radiation. Also called partial-breast irradiation.
Brachytherapy is a form of radiation therapy, which utilizes a radioactive source placed in or in close proximity to the tumor. It can be done by placing the radioactive source on the surface of the body or within a body cavity depending on the area to be treated. Temporary brachytherapy places a delivery device, such as a catheter, needle, or applicator into the tumor. Medical imaging helps position the radiation sources. The doctor may insert the delivery device into a body cavity such as the vagina or uterus (intracavitary). Or, the doctor may insert an applicator (needle or catheter) into body tissues (interstitial). High dose-rate (HDR) treatments deliver radiation over 10 to 20 minutes per session. Low dose-rate (LDR) treatments deliver radiation over 20 to 50 hours. Pulsed dose-rate (PDR) treatments deliver radiation in periodic pulses.

BRCA gene is an abbreviation for "**BR**east **CA**ncer gene" and has been found to impact a person's chances of developing breast cancer. A person who inherits certain mutations (changes) in a BRCA gene has a higher risk of getting breast, ovarian, prostate, and other types of cancer.
Breast cancer is a disease in which cells in the breast grow out of control. The kind of breast cancer depends on which cells in the breast turn into cancer. There are different kinds of breast cancer, including invasive ductal carcinoma, invasive lobular carcinoma, ductal carcinoma in situ (DCIS), paget's disease, medullary, mucinous, and inflammatory breast cancer.
Definitive treatment is the treatment plan for a disease or disorder that has been chosen as the best one for a patient after all other choices have been considered.
Ductal carcinoma in situ (DCIS) is any of a histologically variable group of precancerous growths or early carcinomas of the lactiferous ducts that have the potential of becoming invasive and spreading to other tissues.
Eastern Cooperative Oncology Group (ECOG) scale describes an individual's level of functioning in terms of the ability to care for one's self, daily activity and physical ability (eg, walking, working).

Table 1. ECOG Performance Status Scale

Grade	ECOG PERFORMANCE STATUS
0	Fully active, able to carry on all pre-disease performance without restriction
1	Restricted in physically strenuous activity but ambulatory and able to carry out work of a light or sedentary nature, e.g., light house work, office work
2	Ambulatory and capable of all selfcare but unable to carry out any work activities; up and about more than 50% of waking hours
3	Capable of only limited selfcare; confined to bed or chair more than 50% of waking hours
4	Completely disabled; cannot carry on any selfcare; totally confined to bed or chair
5	Dead

Source: https://ecog-acrin.org/resources/ecog-performance-status/
Invasive breast cancer means that the cancer cells have grown through the lining of the ducts into the surrounding breast tissue
Lumpectomy a surgical operation in which a lump is removed from the breast, typically when cancer is present but has not spread
Lymphovascular invasion (LVI) indicates the presence or absence of tumor cells in lymphatic channels (not lymph nodes) or blood vessels within the primary tumor as noted microscopically by the pathologist.

Brachytherapy Breast Cancer References

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2024 Brachytherapy for Central Nervous System Cancer

Radiation Therapy

Last Review Date: 07/01/2024
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Guideline Initiated: 06/30/2019

Brachytherapy for Central Nervous System Cancer

Glioma • Intracranial and Spinal Ependymoma • Medulloblastoma • Extensive Brain Metastases • Glioblastoma • Leptomeningeal Metastases • Limited Brain Metastases • Meningiomas • Metastatic Spine Tumors • Primary Central Nervous System Lymphoma • Primary Spinal Cord Tumors Guideline

Brachytherapy for glioma, intracranial and spinal ependymoma, medulloblastoma, extensive brain metastases, glioblastoma, leptomeningeal metastases, limited brain metastases, meningiomas, metastatic spine tumors, primary central nervous system lymphoma and primary spinal cord tumors: [1] [2] [3]

- The role of this therapy is uncertain/unclear in the current evidence. Requests for this therapy require review by a physician reviewer, medical director and/or the individual's healthplan.

LCD 37779
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77771	Remote afterloading high dose rate radionuclide interstitial or intracavitary brachytherapy, includes basic dosimetry, when performed; 2-12 channels
77772	Remote afterloading high dose rate radionuclide interstitial or intracavitary brachytherapy, includes basic dosimetry, when performed; over 12 channels
77778	Interstitial radiation source application, complex, includes supervision, handling, loading of radiation source, when performed
77789	Surface application of low dose rate radionuclide source
0394T	High dose rate electonic brachytherapy, skin surface application, per fraction, includes basic dosimetry, when performed
0395T	High dose rate electonic brachytherapy, interstitial or intracavitary treatment, per fraction, includes basic dosimetry, when performed
G0458	Low dose rate (LDR) prostate brachytherapy services, composite rate

Brachytherapy Central Nervous System Summary of Changes

Brachytherapy Central Nervous System guideline from 2023 to 2024 had the following changes:

- Citations updated, evidence review completed.

Brachytherapy Central Nervous System Cancer Definitions

Brachytherapy is a form of radiation therapy, which utilizes a radioactive source placed in or in close proximity to the tumor. It can be done by placing the radioactive source on the surface of the body or within a body cavity depending on the area to be treated. Temporary brachytherapy places a delivery device, such as a catheter, needle, or applicator into the tumor. Medical imaging helps position the radiation sources. The doctor may insert the delivery device into a body cavity such as the vagina or uterus (intracavitary). Or, the doctor may insert an applicator (needle or catheter) into body tissues (interstitial). High dose-rate (HDR) treatments deliver radiation over 10 to 20 minutes per session. Low dose-rate (LDR) treatments deliver radiation over 20 to 50 hours. Pulsed dose-rate (PDR) treatments deliver radiation in periodic pulses.
Ependymoma is a type of brain tumor that begins in the cells lining the spinal cord central canal (fluid-filled space down the center) or the ventricles (fluid-filled spaces of the brain). Ependymomas may also form in the choroid plexus (tissue in the ventricles that makes cerebrospinal fluid).
Glioblastoma is a fast-growing type of central nervous system tumor that forms from glial (supportive) tissue of the brain and spinal cord and has cells that look very different from normal cells. Glioblastoma usually occurs in adults and affects the brain more often than the spinal cord.
Glioma is a type of tumor that occurs in the brain and spinal cord. Gliomas begin in the gluey supportive cells (glial cells) that surround nerve cells and help them function.
Medulloblastoma is fast-growing type of cancer that forms in the cerebellum (the lower, back part of the brain). Medulloblastomas tend to spread through the cerebrospinal fluid to the spinal cord or to other parts of the brain. They may also spread to other parts of the body, but this is rare. Medulloblastomas are most common in children and young adults. They are a type of central nervous system embryonal tumor.
Meningioma is a tumor, usually benign, arising from meningeal tissue of the brain
Metastasis is the spread of a disease-producing agency (such as cancer cells) from the initial or primary site of disease to another part of the body.
Primary central nervous system lymphoma is a disease in which malignant (cancer) cells form in the lymph tissue of the brain and/or spinal cord.
Primary spinal cord tumor is a tumor that originates in the spine. They are relatively rare, typically benign (noncancerous) and represent a small percentage of spinal tumors. Malignant tumors may also originate in the spine, although more often they spread to the spine from elsewhere in the body.

Brachytherapy Central Nervous System Cancer References

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2024 Brachytherapy for Gastrointestinal Cancer

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Previous Review Date: 08/14/2023
Guideline Initiated: 06/30/2019

Brachytherapy for Gastrointestinal Cancer

Anal Cancer • Appendiceal Adenocarcinoma • Colon Cancer • Esophageal Cancer • Gastric Cancer • Rectal Cancer Guideline

Brachytherapy for the treatment of anal, colon, esophageal, gastric, or rectal cancer: [1] [2] [3] [4] [5] [6] [9] [7]

- The role of this therapy is uncertain/unclear in the current evidence. Requests for this therapy require review by a physician reviewer, medical director and/or the individual's healthplan.

LCD 37779
See also, **LCD 37779**: Intraoperative Radiation Therapy at https://www.cms.gov/medicare-coverage-database/search.aspx *if applicable to individual's healthplan membership*.

Brachytherapy Procedure Codes

Table 1. Brachytherapy Associated Procedure Codes

CODE	DESCRIPTION
77424	Intraoperative radiation treatment delivery, x-ray, single treatment session
77425	Intraoperative radiation treatment delivery, electrons, single treatment session
77750	Infusion or instillation of radioelement solution (includes 3-month follow-up care)
77761	Intracavitary radiation source application; simple
77762	Intracavitary radiation source application; intermediate
77763	Intracavitary radiation source application; complex
77767	Remote afterloading high dose rate radionuclide skin surface brachytherapy, includes basic dosimetry, when performed; lesion diameter up to 2.0 cm or 1 channel
77768	Remote afterloading high dose rate radionuclide skin surface brachytherapy, includes basic dosimetry, when performed; lesion diameter over 2.0 cm and 2 or more channels, or multiple lesions
77770	Remote afterloading high dose rate radionuclide interstitial or intracavitary brachytherapy, includes basic dosimetry, when performed; 1 channel
77771	Remote afterloading high dose rate radionuclide interstitial or intracavitary brachytherapy, includes basic dosimetry, when performed; 2-12 channels
77772	Remote afterloading high dose rate radionuclide interstitial or intracavitary brachytherapy, includes basic dosimetry, when performed; over 12 channels
77778	Interstitial radiation source application, complex, includes supervision, handling, loading of radiation source, when performed
77789	Surface application of low dose rate radionuclide source
0394T	High dose rate electonic brachytherapy, skin surface application, per fraction, includes basic dosimetry, when performed
0395T	High dose rate electonic brachytherapy, interstitial or intracavitary treatment, per fraction, includes basic dosimetry, when performed
G0458	Low dose rate (LDR) prostate brachytherapy services, composite rate

Brachytherapy Gastrointestinal Cancer Summary of Changes

Brachytherapy Gastrointestinal Cancer guideline from 2023 to 2024 had the following changes:

- Moved pancreatic adenocarcinoma to the hepatobiliary guideline.

Brachytherapy Gastrointestinal Cancer Definitions

Adenocarcinoma is a malignant tumor originating in glandular epithelium.
Anal cancer is a disease in which malignant (cancer) cells form in the tissues of the anus
Brachytherapy is a form of radiation therapy, which utilizes a radioactive source placed in or in close proximity to the tumor. It can be done by placing the radioactive source on the surface of the body or within a body cavity depending on the area to be treated. Temporary brachytherapy

places a delivery device, such as a catheter, needle, or applicator into the tumor. Medical imaging helps position the radiation sources. The doctor may insert the delivery device into a body cavity such as the vagina or uterus (intracavitary). Or, the doctor may insert an applicator (needle or catheter) into body tissues (interstitial). High dose-rate (HDR) treatments deliver radiation over 10 to 20 minutes per session. Low dose-rate (LDR) treatments deliver radiation over 20 to 50 hours. Pulsed dose-rate (PDR) treatments deliver radiation in periodic pulses.

Colon cancer is a type of cancer that begins in the large intestine (colon).

Esophageal cancer is cancer that forms in tissues lining the esophagus (the muscular tube through which food passes from the throat to the stomach).

Gastric cancer also called stomach cancer, is cancer that forms in tissues lining the stomach.

Rectal cancer is cancer that begins in the rectum

Brachytherapy Gastrointestinal Cancer References

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2024 Brachytherapy for Genitourinary Cancer

Radiation Therapy

Last Review Date: 07/01/2024
Previous Review Date: 08/14/2023
Guideline Initiated: 06/30/2019

Brachytherapy for Genitourinary Cancer

Bladder Cancer • Kidney Cancer • Post-Prostatectomy • Prostate Cancer, Very Low to Low Risk • Prostate Cancer, Favorable Intermediate Risk • Testicular Cancer Guideline

Brachytherapy for bladder cancer, kidney cancer, post-prostatectomy prostate cancer, very low to low risk prostate cancer, favorable intermediate risk prostate cancer and testicular cancer: [4] [6] [9] [10]

- The role of this therapy is uncertain/unclear in the current evidence. Requests for this therapy require review by a physician reviewer, medical director and/or the individual's healthplan.

Penile Cancer Guideline

Brachytherapy for penile cancer is considered medically appropriate when the medical record demonstrates **ANY** of the following: [5] [11] [1]

I. Tumor 4 cm or more:

- The role of this therapy is uncertain/unclear in the current evidence. Requests for this therapy require review by a physician reviewer, medical director and/or the individual's healthplan.

II. **ALL** of the following:

A. **2 fractions or less** for **ANY** of the following:

1. Post circumcision and **ALL** of the following:

a. T1-2, N0 disease

b. Tumor size less than 4 cm

2. Post penectomy and primary site margin is positive

B. Physical ability and clinical status of **ANY** of the following:

- Eastern cooperative oncology group (ECOG) performance status grade of 1 or less
- Karnofsky performance status (KPS) grade of 80 or more[2]

Prostate Cancer, High and Very High Risk (Gleason Score of 8 to 10 OR PSA greater than 20) Guideline

Brachytherapy for prostate cancer, high and very high risk (Gleason score of 8 to 10 **OR** PSA greater than 20) is considered medically appropriate when the medical record demonstrates **ALL** of the following: [3] [7] [8] [2] [10]

I. **ANY** of the following:
   1. **1 fraction** using low dose-rate (LDR) **ONLY** as a boost
   2. **2 fractions or less** using high dose rate (HDR) brachytherapy

II. Physical ability and clinical status of **ANY** of the following:
   - Eastern cooperative oncology group (ECOG) performance status grade of 1 or less
   - Karnofsky performance status (KPS) grade of 80 or more[3]

Prostate Cancer, Unfavorable Intermediate Risk (Gleason Score of 7 OR PSA 10-20) Guideline

Brachytherapy for prostate cancer, unfavorable intermediate risk (Gleason score of 7 **OR** PSA 10-20) is considered medically appropriate when the medical record demonstrates **ALL** of the following: [3] [7] [8] [2] [10]

I. **1 fraction**

II. Life expectancy of 6 months or more

III. Physical ability and clinical status of **ANY** of the following:
   - Eastern cooperative oncology group (ECOG) performance status grade of 1 or less
   - Karnofsky performance status (KPS) grade of 80 or more[4]

[2]The Lansky performance status scale can be utilized for ages 16 or less.
[3]The Lansky performance status scale can be utilized for ages 16 or less.
[4]The Lansky performance status scale can be utilized for ages 16 or less.

LCD 37779
See also, **LCD 37779**: Intraoperative Radiation Therapy at https://www.cms.gov/medicare-coverage-database/search.aspx *if applicable to individual's healthplan membership*.

Brachytherapy Procedure Codes

Table 1. Brachytherapy Associated Procedure Codes

CODE	DESCRIPTION
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0394T	High dose rate electonic brachytherapy, skin surface application, per fraction, includes basic dosimetry, when performed
0395T	High dose rate electonic brachytherapy, interstitial or intracavitary treatment, per fraction, includes basic dosimetry, when performed
G0458	Low dose rate (LDR) prostate brachytherapy services, composite rate

Brachytherapy Genitourinary Cancer Summary of Changes

Brachytherapy for Genitourinary Cancer guideline from 2023 to 2024 had the following changes:

- Penile cancer:

- Added tumor size of 4 cm or less to post circumcision and T1-2, N0 disease.
- Added tumor size of 4 cm or more to go to physician review.

Brachytherapy Genitourinary Cancer Definitions

Bladder cancer is cancer that forms in tissues of the bladder (the organ that stores urine).
Brachytherapy is a form of radiation therapy, which utilizes a radioactive source placed in or in close proximity to the tumor. It can be done by placing the radioactive source on the surface of the body or within a body cavity depending on the area to be treated. Temporary brachytherapy places a delivery device, such as a catheter, needle, or applicator into the tumor. Medical imaging helps position the radiation sources. The doctor may insert the delivery device into a body cavity such as the vagina or uterus (intracavitary). Or, the doctor may insert an applicator (needle or catheter) into body tissues (interstitial). High dose-rate (HDR) treatments deliver radiation over 10 to 20 minutes per session. Low dose-rate (LDR) treatments deliver radiation over 20 to 50 hours. Pulsed dose-rate (PDR) treatments deliver radiation in periodic pulses.
Definitive treatment is the treatment plan for a disease or disorder that has been chosen as the best one for a patient after all other choices have been considered.
Eastern Cooperative Oncology Group (ECOG) scale describes an individual's level of functioning in terms of the ability to care for one's self, daily activity and physical ability (eg, walking, working).

Table 1. ECOG Performance Status Scale

Grade	ECOG PERFORMANCE STATUS
0	Fully active, able to carry on all pre-disease performance without restriction
1	Restricted in physically strenuous activity but ambulatory and able to carry out work of a light or sedentary nature, e.g., light house work, office work
2	Ambulatory and capable of all selfcare but unable to carry out any work activities; up and about more than 50% of waking hours
3	Capable of only limited selfcare; confined to bed or chair more than 50% of waking hours
4	Completely disabled; cannot carry on any selfcare; totally confined to bed or chair
5	Dead

Source: https://ecog-acrin.org/resources/ecog-performance-status/
Karnofsky performance status (KPS) is an assessment tool for functional impairment. It can be used to compare effectiveness of different therapies and to assess the prognosis in individual patients. In most serious illnesses, the lower the Karnofsky score, the worse the likelihood of survival.

Table 2. KARNOFSKY PERFORMANCE STATUS SCALE

Score	Status
100	Normal, no complaints; no evidence of disease
90	Able to carry on normal activity; minor signs or symptoms of disease
80	Normal activity with effort, some signs or symptoms of disease
70	Cares for self but unable to carry on normal activity or to do active work
60	Requires occasional assistance but is able to care for most of personal needs
50	Requires considerable assistance and frequent medical care
40	Disabled; requires special care and assistance
30	Severely disabled; hospitalization is indicated although death not imminent
20	Very ill; hospitalization and active supportive care necessary
10	Moribund
0	Dead

Source: https://ecog-acrin.org/resources/ecog-performance-status/

Kidney cancer is cancer that forms in tissues of the kidneys.

Palliative treatment is treatment given to help relieve the symptoms and reduce the suffering caused by cancer or other life-threatening diseases. Palliative therapy may help a person feel more comfortable, but it does not treat or cure the disease.

Penile cancer is a rare cancer that forms in the penis (an external male reproductive organ). Most penile cancers are squamous cell carcinomas (cancer that begins in flat cells lining the penis).

Prostate is a gland in the male reproductive system. The prostate surrounds the part of the urethra (the tube that empties the bladder) just below the bladder, and produces a fluid that forms part of the semen.

Prostatectomy is a surgery to remove part or all of the prostate and some of the tissue around it, including the seminal vesicles.

Prostate-specific antigen (PSA) is a protein made by the prostate gland and found in the blood. Prostate-specific antigen blood levels may be higher than normal in men who have prostate cancer, benign prostatic hyperplasia (BPH), or infection or inflammation of the prostate gland.

Brachytherapy Genitourinary Cancer References

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2024 Brachytherapy for Gynecological Cancer

Radiation Therapy

Last Review Date: 07/01/2024
Previous Review Date: 08/14/2023
Guideline Initiated: 06/30/2019

Brachytherapy for Gynecological Cancer

Cervical Cancer Guideline

Brachytherapy for cervical cancer is considered medically appropriate when the medical record demonstrates **ALL** of the following: [1] [7] [1]

I. **3 fractions or less** and **ANY** of the following:

A. Advanced disease, with or without sufficient regression, and brachytherapy is delivered using interstitial needles.

B. As a boost, post hysterectomy **AND** positive or close vaginal mucosal surgical margins

C. Cervix is intact and brachytherapy is delivered using ovoids, ring or cylinder (combined with the intrauterine tandem).

D. Definitive therapy for primary cervical cancer when surgery is not an option.

II. Physical ability and clinical status of **ANY** of the following:

- Eastern cooperative oncology group (ECOG) performance status grade of 1 or less
- Karnofsky performance status (KPS) grade of 80 or more[5]

Ovarian Cancer, Fallopian Tube Cancer or Primary Peritoneal Cancer Guideline

Brachytherapy for ovarian cancer, fallopian tube cancer or primary peritoneal cancer: [5]

- The role of this therapy is uncertain/unclear in the current evidence. Requests for this therapy require review by a physician reviewer, medical director and/or the individual's healthplan.

Uterine Neoplasms Guideline

Brachytherapy for uterine neoplasms is considered medically appropriate when the medical record demonstrates **ALL** of the following: [1] [8] [2]

I. **3 fractions or less** for boost **OR** post hysterectomy **AND** therapy is administered using cylinder only.

II. Physical ability and clinical status of **ANY** of the following:

- Eastern cooperative oncology group (ECOG) performance status grade of 1 or less
- Karnofsky performance status (KPS) grade of 80 or more[6]

Vaginal Cancer Guideline

Brachytherapy for vaginal cancer is considered medically appropriate when the medical record demonstrates **ALL** of the following: [3] [9]

[5]The Lansky performance status scale can be utilized for ages 16 or less.
[6]The Lansky performance status scale can be utilized for ages 16 or less.

I. Clinical condition is **ANY** of the following:

A. **2 fractions or less** to gross nodes as a boost.

B. **5 fractions or less** for **ANY** of the following:

1. Invasive cancer using high dose rate (HDR) fractionation to the high-risk clinical target volume (HR-CTV).

2. Very early stage cancer (less than 5 mm in size) and **ALL** of the following:

a. External beam radiation therapy is **NOT** needed.

b. HDR fractionation will be used.

c. Intracavitary approach

II. Physical ability and clinical status of **ANY** of the following:

- Eastern cooperative oncology group (ECOG) performance status grade of 1 or less
- Karnofsky performance status (KPS) grade of 80 or more[7]

Vulvovaginal Melanoma Guideline

Brachytherapy for vulvovaginal melanoma is considered medically appropriate when the medical record demonstrates **ALL** of the following: [4]

I. Clinical condition is **ANY** of the following:

A. **5 fractions** for adjuvant therapy in primary disease only.

B. Unresectable gross disease treated with radiation therapy alone and **ANY** of the following:

1. **8 fractions or less** as a boost

2. **10 fractions or less** with brachytherapy alone, for primary disease only.

II. Physical ability and clinical status of **ANY** of the following:

- Eastern cooperative oncology group (ECOG) performance status grade of 1 or less
- Karnofsky performance status (KPS) grade of 80 or more[8]

[7]The Lansky performance status scale can be utilized for ages 16 or less.
[8]The Lansky performance status scale can be utilized for ages 16 or less.

LCD 37779
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G0458	Low dose rate (LDR) prostate brachytherapy services, composite rate

Brachytherapy Gynecological Cancer Summary of Changes

Brachytherapy Gynecological Cancer guideline from 2023 to 2024 had the following changes:

- Added the following definitions:

- Definitive therapy
- High-dose-rate remote brachytherapy
- Intracavitary radiation therapy

- New indication: Vaginal Cancer added with the following:
  - **2 fractions or less** to gross nodes as a boost.
  - **5 fractions or less** for **ANY** of the following:
    - Invasive cancer using high dose rate (HDR) fractionation to the high-risk clinical target volume (HR-CTV).
    - Very early stage cancer (less than 5 mm in size) and **ALL** of the following:
      - External beam radiation therapy is **NOT** needed.
      - HDR fractionation will be used.
      - Intracavitary approach
- Vulvovaginal melanoma:
  - Removed "surgery is not an option" due to repetition.
  - Removed "symptomatic gross metastatic disease that is unresponsive to other therapies" due to no fraction recommendation.
  - Changed verbiage under this indication: Unresectable gross disease treated with radiation therapy alone and ANY of the following:
    - "10 fractions or less with brachytherapy only, for primary disease **only**" to "10 fractions or less with brachytherapy **alone**, for primary disease only" to make criteria clearer.

Brachytherapy Gynecological Cancer Definitions

Adjuvant treatment refers to enhancing the effectiveness of medical treatment.
Boost refers to an additional dose of radiation to a very small component or part of the initial targeted field or body part that is being treated for a tumor.
Brachytherapy is a form of radiation therapy, which utilizes a radioactive source placed in or in close proximity to the tumor. It can be done by placing the radioactive source on the surface of the body or within a body cavity depending on the area to be treated. Temporary brachytherapy places a delivery device, such as a catheter, needle, or applicator into the tumor. Medical imaging helps position the radiation sources. The doctor may insert the delivery device into a body cavity such as the vagina or uterus (intracavitary). Or, the doctor may insert an applicator (needle or catheter) into body tissues (interstitial). High dose-rate (HDR) treatments deliver radiation over

10 to 20 minutes per session. Low dose-rate (LDR) treatments deliver radiation over 20 to 50 hours. Pulsed dose-rate (PDR) treatments deliver radiation in periodic pulses.

Cervical cancer forms in tissues of the cervix (the organ connecting the uterus and vagina).

Definitive treatment is the treatment plan for a disease or disorder that has been chosen as the best one for a patient after all other choices have been considered.

Eastern Cooperative Oncology Group (ECOG) scale describes an individual's level of functioning in terms of the ability to care for one's self, daily activity and physical ability (eg, walking, working).

Table 1. ECOG Performance Status Scale

Grade	ECOG PERFORMANCE STATUS
0	Fully active, able to carry on all pre-disease performance without restriction
1	Restricted in physically strenuous activity but ambulatory and able to carry out work of a light or sedentary nature, e.g., light house work, office work
2	Ambulatory and capable of all selfcare but unable to carry out any work activities; up and about more than 50% of waking hours
3	Capable of only limited selfcare; confined to bed or chair more than 50% of waking hours
4	Completely disabled; cannot carry on any selfcare; totally confined to bed or chair
5	Dead

Source: https://ecog-acrin.org/resources/ecog-performance-status/

Fallopian tube cancer is cancer that develops in the fallopian tubes rather than the ovaries.

High-dose-rate remote brachytherapy definition is a type of internal radiation treatment in which the radioactive source is removed between treatments. Also called high-dose-rate remote radiation therapy and remote brachytherapy.

Intracavitary radiation therapy is a type of internal radiation therapy in which radioactive material sealed in needles, seeds, wires, or catheters is placed directly into a body cavity such as the chest cavity or the vagina.

Karnofsky performance status (KPS) is an assessment tool for functional impairment. It can be used to compare effectiveness of different therapies and to assess the prognosis in individual patients. In most serious illnesses, the lower the Karnofsky score, the worse the likelihood of survival.

Table 2. KARNOFSKY PERFORMANCE STATUS SCALE

Score	Status
100	Normal, no complaints; no evidence of disease
90	Able to carry on normal activity; minor signs or symptoms of disease
80	Normal activity with effort, some signs or symptoms of disease
70	Cares for self but unable to carry on normal activity or to do active work
60	Requires occasional assistance but is able to care for most of personal needs

Score	Status
50	Requires considerable assistance and frequent medical care
40	Disabled; requires special care and assistance
30	Severely disabled; hospitalization is indicated although death not imminent
20	Very ill; hospitalization and active supportive care necessary
10	Moribund
0	Dead

Source: https://ecog-acrin.org/resources/ecog-performance-status/

Ovarian cancer is cancer that forms in the tissues of the ovary (one of a pair of female reproductive glands in which the ova or eggs are formed).

Primary peritoneal cancer is cancer that forms in the peritoneum and has not spread there from another part of the body.

Recurrent disease is characterized by repeated alternations between acute relapse and long remission. Cancer that has recurred (come back), usually after a period of time during which the cancer could not be detected. The cancer may come back to the same place as the original (primary) tumor or to another place in the body. Also called recurrence.

Uterine neoplasm is a malignant tumor that starts in the cells of the uterus.

Vaginal cancer is cancer that forms in the tissues of the vagina (birth canal).

Vulvar cancer is cancer of the vulva (the external female genital organs, including the clitoris, vaginal lips and the opening to the vagina).

Brachytherapy Gynecological Cancer References

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2024 Brachytherapy for Head and Neck Cancer

Radiation Therapy

Last Review Date: 07/01/2024
Previous Review Date: 08/14/2023
Guideline Initiated: 06/30/2019

Brachytherapy for Head and Neck Cancer

Ethmoid Sinus Tumors • Maxillary Sinus Tumors • Mucosal Melanoma • Oral Cavity Cancer Guideline

Brachytherapy for ethmoid sinus tumors, maxillary sinus tumors, mucosal melanoma and oral cavity cancer: [5]

- The role of this therapy is uncertain/unclear in the current evidence. Requests for this therapy require review by a physician reviewer, medical director and/or the individual's healthplan.

Hypopharynx Cancer • Laryngeal Cancer • Nasopharynx Cancer • Oropharynx Cancer Guideline

Brachytherapy for hypopharynx cancer, laryngeal cancer, nasopharynx cancer and oropharynx cancer: [5]

- The role of this therapy is uncertain/unclear in the current evidence. Requests for this therapy require review by a physician reviewer, medical director and/or the individual's healthplan.

Thyroid Carcinoma Guideline

Brachytherapy for thyroid carcinoma: [4]

- The role of this therapy is uncertain/unclear in the current evidence. Requests for this therapy require review by a physician reviewer, medical director and/or the individual's healthplan.

Uveal Melanoma Guideline

Brachytherapy for uveal melanoma is considered appropriate when the medical record demonstrates **ALL** of the following: [3] [2] [6] [7] [1]

I. **1 fraction**

II. Definitive therapy for primary tumor

III. Plaque brachytherapy is being used for **EITHER** of the following:

  A. Upfront therapy after initial diagnosis

  B. Post local recurrence following a prior local therapy

IV. Tumor size is 2 cm or less in diameter.

V. Physical ability and clinical status of **ANY** of the following:

- Eastern cooperative oncology group (ECOG) performance status grade of 1 or less
- Karnofsky performance status (KPS) grade of 80 or more[9]

LCD 37779
See also, **LCD 37779**: Intraoperative Radiation Therapy at https://www.cms.gov/medicare-coverage-database/search.aspx *if applicable to individual's healthplan membership*.

Brachytherapy Procedure Codes

Table 1. Brachytherapy Associated Procedure Codes

CODE	DESCRIPTION
77424	Intraoperative radiation treatment delivery, x-ray, single treatment session
77425	Intraoperative radiation treatment delivery, electrons, single treatment session
77750	Infusion or instillation of radioelement solution (includes 3-month follow-up care)

[9]The Lansky performance status scale can be utilized for ages 16 or less.

CODE	DESCRIPTION
77761	Intracavitary radiation source application; simple
77762	Intracavitary radiation source application; intermediate
77763	Intracavitary radiation source application; complex
77767	Remote afterloading high dose rate radionuclide skin surface brachytherapy, includes basic dosimetry, when performed; lesion diameter up to 2.0 cm or 1 channel
77768	Remote afterloading high dose rate radionuclide skin surface brachytherapy, includes basic dosimetry, when performed; lesion diameter over 2.0 cm and 2 or more channels, or multiple lesions
77770	Remote afterloading high dose rate radionuclide interstitial or intracavitary brachytherapy, includes basic dosimetry, when performed; 1 channel
77771	Remote afterloading high dose rate radionuclide interstitial or intracavitary brachytherapy, includes basic dosimetry, when performed; 2-12 channels
77772	Remote afterloading high dose rate radionuclide interstitial or intracavitary brachytherapy, includes basic dosimetry, when performed; over 12 channels
77778	Interstitial radiation source application, complex, includes supervision, handling, loading of radiation source, when performed
77789	Surface application of low dose rate radionuclide source
0394T	High dose rate electonic brachytherapy, skin surface application, per fraction, includes basic dosimetry, when performed
0395T	High dose rate electonic brachytherapy, interstitial or intracavitary treatment, per fraction, includes basic dosimetry, when performed
G0458	Low dose rate (LDR) prostate brachytherapy services, composite rate

Brachytherapy Head and Neck Cancer Summary of Changes

Brachytherapy Head and Neck Cancer guideline from 2023 to 2024 had the following changes:

- Added definitions for local therapy for cancer and plaque brachytherapy.
- Uveal Melanoma: added the following:
  - Upfront therapy after initial diagnosis
  - Post local recurrence following a prior local therapy

Brachytherapy Head and Neck Cancer Definitions

Brachytherapy is a form of radiation therapy, which utilizes a radioactive source placed in or in close proximity to the tumor. It can be done by placing the radioactive source on the surface of the body or within a body cavity depending on the area to be treated. Temporary brachytherapy places a delivery device, such as a catheter, needle, or applicator into the tumor. Medical imaging helps position the radiation sources. The doctor may insert the delivery device into a body cavity such as the vagina or uterus (intracavitary). Or, the doctor may insert an applicator (needle or catheter) into body tissues (interstitial). High dose-rate (HDR) treatments deliver radiation over

10 to 20 minutes per session. Low dose-rate (LDR) treatments deliver radiation over 20 to 50 hours. Pulsed dose-rate (PDR) treatments deliver radiation in periodic pulses.

Hypopharyngeal refers to the bottom part of the throat.

Laryngeal cancer is cancer that forms in tissues of the larynx (area of the throat that contains the vocal cords and is used for breathing, swallowing, and talking).

Local therapy for cancer is treatment that is directed to a specific organ or limited area of the body, such as the breast or an abnormal growth on the skin. Examples of local therapy used in cancer are surgery, radiation therapy, cryotherapy, laser therapy, and topical therapy (medicine in a lotion or cream that is applied to the skin).

Melanoma is a highly malignant tumor that starts in melanocytes of normal skin or moles and metastasizes rapidly and widely.

Mucosal melanoma is a melanoma that starts in the moist membranes that line the inside of the body, including the digestive tract. It is a rare but aggressive disease and is usually diagnosed in advanced stages.

Nasopharyngeal refers to the nose and pharynx (the hollow tube inside the neck that starts behind the nose and ends at the top of the trachea and esophagus).

Oral cavity refers to the mouth. It includes the lips, the lining inside the cheeks and lips, the front two thirds of the tongue, the upper and lower gums, the floor of the mouth under the tongue, the bony roof of the mouth, and the small area behind the wisdom teeth.

Oropharyngeal refers to the part of the throat at the back of the mouth behind the oral cavity.

Plaque radiotherapy (brachytherapy) is a type of radiation therapy used to treat eye tumors. A thin piece of metal (usually gold) with radioactive seeds placed on one side is sewn onto the outside wall of the eye with the seeds aimed at the tumor. It is removed at the end of treatment, which usually lasts for several days.

Thyroid carcinoma is a cancer that forms in the thyroid gland (an organ at the base of the throat that makes hormones that help control heart rate, blood pressure, body temperature, and weight).

Uveal melanoma begins in the cells that make the dark-colored pigment, called melanin, in the uvea or uveal tract of the eye. Uveal melanoma of the iris is usually a small tumor that grows slowly and rarely spreads to other parts of the body. Uveal melanoma of the ciliary body and choroid are usually larger tumors and are more likely to spread to other parts of the body.

Brachytherapy Head and Neck Cancer References

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[7] Wong, A. J., Teh, B. S., . . . Schefler, A. C. (2022). Three-year outcomes of uveal melanoma treated with intra-operative ultrasound-guided iodine-125 brachytherapy using custom-built eye plaques. *Journal of Contemporary Brachytherapy, 14*(2), 130-139.

2024 Brachytherapy for Hepatobiliary Cancer

Radiation Therapy

Last Review Date: 07/01/2024
Previous Review Date: 08/14/2023
Guideline Initiated: 06/30/2019

Brachytherapy for Hepatobiliary Cancer

Ampullary Adenocarcinoma Guideline

Brachytherapy for ampullary adenocarcinoma: [6]

- The role of this therapy is uncertain/unclear in the current evidence. Requests for this therapy require review by a physician reviewer, medical director and/or the individual's healthplan.

Biliary Tract (Gallbladder • Intrahepatic Cholangiocarcinoma • Extrahepatic Cholangiocarcinoma) Cancer Guideline

Brachytherapy for biliary tract (gallbladder, intrahepatic cholangiocarcinoma or extrahepatic cholangiocarcinoma) cancer: [4] [1] [3]

- The role of this therapy is uncertain/unclear in the current evidence. Requests for this therapy require review by a physician reviewer, medical director and/or the individual's healthplan.

Hepatocellular Carcinoma Guideline

Brachytherapy for hepatocellular carcinoma: [2]

- The role of this therapy is uncertain/unclear in the current evidence. Requests for this therapy require review by a physician reviewer, medical director and/or the individual's healthplan.

Pancreatic Adenocarcinoma Guideline

Brachytherapy for the treatment of pancreatic adenocarcinoma: [8]

- The role of this therapy is uncertain/unclear in the current evidence. Requests for this therapy require review by a physician reviewer, medical director and/or the individual's healthplan.

LCD 37779
See also, **LCD 37779**: Intraoperative Radiation Therapy at https://www.cms.gov/medicare-coverage-database/search.aspx *if applicable to individual's healthplan membership*.

Brachytherapy Procedure Codes

Table 1. Brachytherapy Associated Procedure Codes

CODE	DESCRIPTION
77424	Intraoperative radiation treatment delivery, x-ray, single treatment session
77425	Intraoperative radiation treatment delivery, electrons, single treatment session
77750	Infusion or instillation of radioelement solution (includes 3-month follow-up care)
77761	Intracavitary radiation source application; simple
77762	Intracavitary radiation source application; intermediate
77763	Intracavitary radiation source application; complex
77767	Remote afterloading high dose rate radionuclide skin surface brachytherapy, includes basic dosimetry, when performed; lesion diameter up to 2.0 cm or 1 channel
77768	Remote afterloading high dose rate radionuclide skin surface brachytherapy, includes basic dosimetry, when performed; lesion diameter over 2.0 cm and 2 or more channels, or multiple lesions
77770	Remote afterloading high dose rate radionuclide interstitial or intracavitary brachytherapy, includes basic dosimetry, when performed; 1 channel
77771	Remote afterloading high dose rate radionuclide interstitial or intracavitary brachytherapy, includes basic dosimetry, when performed; 2-12 channels

CODE	DESCRIPTION
77772	Remote afterloading high dose rate radionuclide interstitial or intracavitary brachytherapy, includes basic dosimetry, when performed; over 12 channels
77778	Interstitial radiation source application, complex, includes supervision, handling, loading of radiation source, when performed
77789	Surface application of low dose rate radionuclide source
0394T	High dose rate electonic brachytherapy, skin surface application, per fraction, includes basic dosimetry, when performed
0395T	High dose rate electonic brachytherapy, interstitial or intracavitary treatment, per fraction, includes basic dosimetry, when performed
G0458	Low dose rate (LDR) prostate brachytherapy services, composite rate

Brachytherapy Hepatobiliary Cancer Summary of Changes

Brachytherapy Hepatobiliary guideline from 2023 to 2024 had the following changes:

- Added defnitions for pancreatic cancer and ampullary adenocarcinoma.
- Added indication of Ampullary Adenocarcinoma, which goes directly to physician review.
- Moved Pancreatic Adenocarcinoma from Gastrointestinal Cancer Guideline to this guideline.

Brachytherapy Hepatobiliary Cancer Definitions

Biliary tract involves the organs and ducts that make and store bile (a fluid made by the liver that helps digest fat), and release it into the small intestine. The biliary tract includes the gallbladder and bile ducts inside and outside the liver.
Ampullary adenocarcinoma are tumors originating from the ampulla of Vater (formed by 3 anatomical components: the ampulla, the intraduodenal portion of the bile duct, and the intraduodenal portion of the pancreatic duct).
Brachytherapy is a form of radiation therapy, which utilizes a radioactive source placed in or in close proximity to the tumor. It can be done by placing the radioactive source on the surface of the body or within a body cavity depending on the area to be treated. Temporary brachytherapy places a delivery device, such as a catheter, needle, or applicator into the tumor. Medical imaging helps position the radiation sources. The doctor may insert the delivery device into a body cavity such as the vagina or uterus (intracavitary). Or, the doctor may insert an applicator (needle or catheter) into body tissues (interstitial). High dose-rate (HDR) treatments deliver radiation over 10 to 20 minutes per session. Low dose-rate (LDR) treatments deliver radiation over 20 to 50 hours. Pulsed dose-rate (PDR) treatments deliver radiation in periodic pulses.
Hepatocellular is relating to or involving liver cells.
Pancreatic cancer is cancer that forms in the cells of the pancreas

Brachytherapy Hepatobiliary Cancer References

[1] Benson, A.B., D'Angelica, M.I., . . . Yopp, A. (2024). Biliary Tract Cancers Version 2.2024. *National Comprehensive Cancer Network*. Retrieved: May 2024. https://www.nccn.org/guidelines/guidelines-detail?category=1&id=1517

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[3] Gravely, A. K., Vibert, E., Sapisochin, G. (2022). Surgical treatment of intrahepatic cholangiocarcinoma. *Journal of Hepatology, 77*(3), 865-867.

[4] Kodali, S., Shetty, A., . . . Ghobrial, R. (2021). Management of Intrahepatic Cholangiocarcinoma. *Journal of Clinical Medicine, 10*(11), 1-15.

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2024 Brachytherapy Sarcoma

Radiation Therapy

Last Review Date: 07/01/2024
Previous Review Date: 08/14/2023
Guideline Initiate: 06/30/2019

Brachytherapy for Sarcoma

Desmoid Tumors Guideline

Brachytherapy for desmoid tumors: [3]

- The role of this therapy is uncertain/unclear in the current evidence. Requests for this therapy require review by a physician reviewer, medical director and/or the individual's healthplan.

Kaposi Sarcoma Guideline

Brachytherapy for Kaposi sarcoma: [2]

- The role of this therapy is uncertain/unclear in the current evidence. Requests for this therapy require review by a physician reviewer, medical director and/or the individual's healthplan.

Retroperitoneal/Intra-Abdominal Sarcoma Guideline

Brachytherapy for retroperitoneal/intra-abdominal sarcoma: [3]

- The role of this therapy is uncertain/unclear in the current evidence. Requests for this therapy require review by a physician reviewer, medical director and/or the individual's healthplan.

Soft Tissue Sarcoma of Extremity, Body Wall or Head and Neck Guideline

Brachytherapy for soft tissue sarcoma of extremity, body wall or head and neck is considered medically appropriate when the medical record demonstrates **ALL** of the following: [3] [1]

I. **10 fractions or less** for **ANY** of the following:

   A. Adjuvant therapy with high dose-rate brachytherapy for negative margins

   B. Adjuvant therapy with high dose-rate brachytherapy that is administered with external beam radiation therapy (EBRT) for positive margins

   C. Boost in neoadjuvant therapy for positive margins

II. Physical ability and clinical status of **ANY** of the following:

   - Eastern cooperative oncology group (ECOG) performance status grade of 1 or less
   - Karnofsky performance status (KPS) grade of 80 or more[10]

LCD 37779
See also, **LCD 37779**: Intraoperative Radiation Therapy at https://www.cms.gov/medicare-coverage-database/search.aspx *if applicable to individual's healthplan membership*.

[10]The Lansky performance status scale can be utilized for ages 16 or less.

Brachytherapy Procedure Codes

Table 1. Brachytherapy Associated Procedure Codes

CODE	DESCRIPTION
77424	Intraoperative radiation treatment delivery, x-ray, single treatment session
77425	Intraoperative radiation treatment delivery, electrons, single treatment session
77750	Infusion or instillation of radioelement solution (includes 3-month follow-up care)
77761	Intracavitary radiation source application; simple
77762	Intracavitary radiation source application; intermediate
77763	Intracavitary radiation source application; complex
77767	Remote afterloading high dose rate radionuclide skin surface brachytherapy, includes basic dosimetry, when performed; lesion diameter up to 2.0 cm or 1 channel
77768	Remote afterloading high dose rate radionuclide skin surface brachytherapy, includes basic dosimetry, when performed; lesion diameter over 2.0 cm and 2 or more channels, or multiple lesions
77770	Remote afterloading high dose rate radionuclide interstitial or intracavitary brachytherapy, includes basic dosimetry, when performed; 1 channel
77771	Remote afterloading high dose rate radionuclide interstitial or intracavitary brachytherapy, includes basic dosimetry, when performed; 2-12 channels
77772	Remote afterloading high dose rate radionuclide interstitial or intracavitary brachytherapy, includes basic dosimetry, when performed; over 12 channels
77778	Interstitial radiation source application, complex, includes supervision, handling, loading of radiation source, when performed
77789	Surface application of low dose rate radionuclide source
0394T	High dose rate electonic brachytherapy, skin surface application, per fraction, includes basic dosimetry, when performed
0395T	High dose rate electonic brachytherapy, interstitial or intracavitary treatment, per fraction, includes basic dosimetry, when performed
G0458	Low dose rate (LDR) prostate brachytherapy services, composite rate

Brachytherapy Sarcoma Summary of Changes

Brachytherapy Sarcoma guideline from 2023 to 2024 had the following changes:

- Added definitions for positive margins and neoadjuvant treatment

Brachytherapy Sarcoma Definitions

Adjuvant treatment refers to enhancing the effectiveness of medical treatment.
Boost refers to an additional dose of radiation to a very small component or part of the initial targeted field or body part that is being treated for a tumor.
Brachytherapy is a form of radiation therapy, which utilizes a radioactive source placed in or in close proximity to the tumor. It can be done by placing the radioactive source on the surface of

the body or within a body cavity depending on the area to be treated. Temporary brachytherapy places a delivery device, such as a catheter, needle, or applicator into the tumor. Medical imaging helps position the radiation sources. The doctor may insert the delivery device into a body cavity such as the vagina or uterus (intracavitary). Or, the doctor may insert an applicator (needle or catheter) into body tissues (interstitial). High dose-rate (HDR) treatments deliver radiation over 10 to 20 minutes per session. Low dose-rate (LDR) treatments deliver radiation over 20 to 50 hours. Pulsed dose-rate (PDR) treatments deliver radiation in periodic pulses.

Desmoid tumor is a soft tissue tumor that forms in fibrous (connective) tissue, usually in the arms, legs or abdomen. It may also occur in the head and neck. Desmoid tumors are usually benign (not cancer). They often recur (come back) after treatment and spread to nearby tissue, but they rarely spread to other parts of the body.

Eastern Cooperative Oncology Group (ECOG) scale describes an individual's level of functioning in terms of the ability to care for one's self, daily activity and physical ability (eg, walking, working).

Table 1. ECOG Performance Status Scale

Grade	ECOG PERFORMANCE STATUS
0	Fully active, able to carry on all pre-disease performance without restriction
1	Restricted in physically strenuous activity but ambulatory and able to carry out work of a light or sedentary nature, e.g., light house work, office work
2	Ambulatory and capable of all selfcare but unable to carry out any work activities; up and about more than 50% of waking hours
3	Capable of only limited selfcare; confined to bed or chair more than 50% of waking hours
4	Completely disabled; cannot carry on any selfcare; totally confined to bed or chair
5	Dead

Source: https://ecog-acrin.org/resources/ecog-performance-status/

Intra-abdominal means being within or going into the abdomen

Kaposi sarcoma is a cancer that develops from the cells that line lymph or blood vessels.

Karnofsky performance status (KPS) is an assessment tool for functional impairment. It can be used to compare effectiveness of different therapies and to assess the prognosis in individual patients. In most serious illnesses, the lower the Karnofsky score, the worse the likelihood of survival.

Table 2. KARNOFSKY PERFORMANCE STATUS SCALE

Score	Status
100	Normal, no complaints; no evidence of disease
90	Able to carry on normal activity; minor signs or symptoms of disease
80	Normal activity with effort, some signs or symptoms of disease
70	Cares for self but unable to carry on normal activity or to do active work

Score	Status
60	Requires occasional assistance but is able to care for most of personal needs
50	Requires considerable assistance and frequent medical care
40	Disabled; requires special care and assistance
30	Severely disabled; hospitalization is indicated although death not imminent
20	Very ill; hospitalization and active supportive care necessary
10	Moribund
0	Dead

Source: https://ecog-acrin.org/resources/ecog-performance-status/

Neoadjuvant treatment is treatment (such as chemotherapy or hormone therapy) administered before primary cancer treatment (such as surgery) to enhance the outcome of primary treatment.

Positive margin of excision is unexpected tumor involvement at lateral/deep edges after a prior definitive (presumed) excision. *The edge or border of the tissue removed in cancer surgery. The margin is described as negative or clean when the pathologist finds no cancer cells at the edge of the tissue, suggesting that all of the cancer has been removed. The margin is described as positive or involved when the pathologist finds cancer cells at the edge of the tissue, suggesting that all of the cancer has not been removed.*

Retroperitoneal means situated or occurring behind the peritoneum.

Sarcomas are rare cancers that develop in the bones and soft tissues including fat, muscles, blood vessels, nerves, deep skin tissues and fibrous tissues.

Brachytherapy Sarcoma References

[1] Naghavi, A.,O., Fernandez, N., . . . Harrison, L.B. (2017). The American Brachytherapy Society consensus statement for soft tissue sarcoma brachytherapy. *Brachytherapy, 16*(3), 466-489.

[2] Reid, E., Suneja, G., . . . Wang, J.C. (2024). Kaposi Sarcoma Version 1.2024. *National Comprehensive Cancer Network*. Retrieved: April 2024. https://www.nccn.org/guidelines/guidelines-detail?category=1&id=1485

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2024 Brachytherapy Skin Cancer

Radiation Therapy

Last Review Date: 07/01/2024

Previous Review Date: 08/14/2023

Guideline Initiated: 06/30/2019

Brachytherapy for Skin Cancer

Basal Cell Skin Cancer and Dermatofibrosarcoma Protuberans Guideline

Brachytherapy for basal cell skin cancer and dermatofibrosarcoma protuberans: [2] [1] [3]

- The role of this therapy is uncertain/unclear in the current evidence. Requests for this therapy require review by a physician reviewer, medical director and/or the individual's healthplan.

Melanoma and Merkel Cell Carcinoma Guideline

Brachytherapy for melanoma and Merkel cell carcinoma: [4] [6]

- The role of this therapy is uncertain/unclear in the current evidence. Requests for this therapy require review by a physician reviewer, medical director and/or the individual's healthplan.

Squamous Cell Skin Cancer Guideline

Brachytherapy for squamous cell skin cancer: [2] [5]

- The role of this therapy is uncertain/unclear in the current evidence. Requests for this therapy require review by a physician reviewer, medical director and/or the individual's healthplan.

LCD 37779
See also, **LCD 37779**: Intraoperative Radiation Therapy at https://www.cms.gov/medicare-coverage-database/search.aspx *if applicable to individual's healthplan membership*.

Brachytherapy Procedure Codes

Table 1. Brachytherapy Associated Procedure Codes

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77763	Intracavitary radiation source application; complex
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77768	Remote afterloading high dose rate radionuclide skin surface brachytherapy, includes basic dosimetry, when performed; lesion diameter over 2.0 cm and 2 or more channels, or multiple lesions
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77771	Remote afterloading high dose rate radionuclide interstitial or intracavitary brachytherapy, includes basic dosimetry, when performed; 2-12 channels
77772	Remote afterloading high dose rate radionuclide interstitial or intracavitary brachytherapy, includes basic dosimetry, when performed; over 12 channels
77778	Interstitial radiation source application, complex, includes supervision, handling, loading of radiation source, when performed
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0394T	High dose rate electonic brachytherapy, skin surface application, per fraction, includes basic dosimetry, when performed
0395T	High dose rate electonic brachytherapy, interstitial or intracavitary treatment, per fraction, includes basic dosimetry, when performed
G0458	Low dose rate (LDR) prostate brachytherapy services, composite rate

Brachytherapy Skin Cancer Summary of Changes

Brachytherapy Skin Cancer guideline from 2023 to 2024 had the following changes:

- Citations updated, evidence review completed.

Brachytherapy Skin Cancer Definitions

Basal cell carcinoma (BCC) is a skin cancer derived from and preserving the form of the basal cells of the skin.

Brachytherapy is a form of radiation therapy, which utilizes a radioactive source placed in or in close proximity to the tumor. It can be done by placing the radioactive source on the surface of the body or within a body cavity depending on the area to be treated. Temporary brachytherapy places a delivery device, such as a catheter, needle, or applicator into the tumor. Medical imaging helps position the radiation sources. The doctor may insert the delivery device into a body cavity such as the vagina or uterus (intracavitary). Or, the doctor may insert an applicator (needle or catheter) into body tissues (interstitial). High dose-rate (HDR) treatments deliver radiation over 10 to 20 minutes per session. Low dose-rate (LDR) treatments deliver radiation over 20 to 50 hours. Pulsed dose-rate (PDR) treatments deliver radiation in periodic pulses.

Dermatofibrosarcoma protuberans (DFSP) is a rare type of skin cancer that starts in connective tissue cells in the middle layer of the skin (dermis).
Melanoma is a highly malignant tumor that starts in melanocytes of normal skin or moles and metastasizes rapidly and widely.
Merkel cell carcinoma is a very rare disease in which malignant (cancer) cells form in the skin.
Squamous cell carcinoma (SCC) of the skin is a common form of skin cancer that develops in the squamous cells that make up the middle and outer layers of the skin. Squamous cell carcinoma of the skin is usually not life-threatening, though it can be aggressive.

Brachytherapy Skin Cancer References

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2024 Brachytherapy Thoracic Cancer

Radiation Therapy

Last Review Date: 07/01/2024
Previous Review Date: 08/14/2023
Guideline Initiated: 06/30/2019

Brachytherapy for Thoracic Cancer

Mesothelioma, Non-Small Cell Lung Cancer Stage I-III, Small Cell Lung Cancer Limited and Extensive Stage and Thymoma/ Thymic Cancer Guideline

Brachytherapy for mesothelioma; non-small cell lung cancer, stage I-III; small cell lung cancer, limited and extensive stage and thymoma/thymic cancer: [1] [2] [3] [4]

- The role of this therapy is uncertain/unclear in the current evidence. Requests for this therapy require review by a physician reviewer, medical director and/or the individual's healthplan.

LCD 37779
See also, **LCD 37779**: Intraoperative Radiation Therapy at https://www.cms.gov/medicare-coverage-database/search.aspx *if applicable to individual's healthplan membership*.

Brachytherapy Procedure Codes

Table 1. Brachytherapy Associated Procedure Codes

CODE	DESCRIPTION
77424	Intraoperative radiation treatment delivery, x-ray, single treatment session
77425	Intraoperative radiation treatment delivery, electrons, single treatment session
77750	Infusion or instillation of radioelement solution (includes 3-month follow-up care)
77761	Intracavitary radiation source application; simple
77762	Intracavitary radiation source application; intermediate
77763	Intracavitary radiation source application; complex
77767	Remote afterloading high dose rate radionuclide skin surface brachytherapy, includes basic dosimetry, when performed; lesion diameter up to 2.0 cm or 1 channel
77768	Remote afterloading high dose rate radionuclide skin surface brachytherapy, includes basic dosimetry, when performed; lesion diameter over 2.0 cm and 2 or more channels, or multiple lesions
77770	Remote afterloading high dose rate radionuclide interstitial or intracavitary brachytherapy, includes basic dosimetry, when performed; 1 channel
77771	Remote afterloading high dose rate radionuclide interstitial or intracavitary brachytherapy, includes basic dosimetry, when performed; 2-12 channels
77772	Remote afterloading high dose rate radionuclide interstitial or intracavitary brachytherapy, includes basic dosimetry, when performed; over 12 channels

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
0394T	High dose rate electonic brachytherapy, skin surface application, per fraction, includes basic dosimetry, when performed
0395T	High dose rate electonic brachytherapy, interstitial or intracavitary treatment, per fraction, includes basic dosimetry, when performed
G0458	Low dose rate (LDR) prostate brachytherapy services, composite rate

Brachytherapy Thoracic Cancer Summary of Changes

Brachytherapy Thoracic Cancer guideline from 2023 to 2024 had the following changes:

- Citations updated, evidence review completed.

Brachytherapy Thoracic Cancer Definitions

Brachytherapy is a form of radiation therapy, which utilizes a radioactive source placed in or in close proximity to the tumor. It can be done by placing the radioactive source on the surface of the body or within a body cavity depending on the area to be treated. Temporary brachytherapy places a delivery device, such as a catheter, needle, or applicator into the tumor. Medical imaging helps position the radiation sources. The doctor may insert the delivery device into a body cavity such as the vagina or uterus (intracavitary). Or, the doctor may insert an applicator (needle or catheter) into body tissues (interstitial). High dose-rate (HDR) treatments deliver radiation over 10 to 20 minutes per session. Low dose-rate (LDR) treatments deliver radiation over 20 to 50 hours. Pulsed dose-rate (PDR) treatments deliver radiation in periodic pulses.
Extensive stage describes cancers that have spread widely throughout the lung, to the other lung, to lymph nodes on the other side of the chest, or to other parts of the body (including the bone marrow).
Limited stage means the cancer is only on one side of the chest and can be treated with a single radiation field.
Mesothelioma is a usually malignant tumor derived from mesothelial tissue (such as the tissue that lines the peritoneum or pleura).
Non-small cell lung cancer is a group of lung cancers named for the kinds of cells found in the cancer and how the cells look under a microscope. The three main types of non-small cell lung cancer are adenocarcinoma (most common), squamous cell carcinoma and large cell carcinoma. Non-small cell lung cancer is the most common of the two main types of lung cancer (non-small cell lung cancer and small cell lung cancer).

Small cell lung cancer is a highly malignant form of cancer that affects the lungs, tends to metastasize to other parts of the body, is characterized by small round or oval cells which resemble oat grains and have little cytoplasm.
Thymoma and thymic carcinoma are diseases in which malignant (cancer) cells form on the outside surface of the thymus.

Brachytherapy Thoracic Cancer References

[1] Ettinger, D.S., Wood, D.E., . . . Yau, E. (2024). Non-Small Cell Cancer Version 5.2024. *National Comprehensive Cancer Network*. Retrieved: May 2024. https://www.nccn.org/guidelines/guidelines-detail?category=1&id=1450
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Disclaimer section

Purpose

The purpose of the HealthHelp's clinical guidelines is to assist healthcare professionals in selecting the medical service that may be appropriate and supported by evidence to safely improve outcomes. Medical information is constantly evolving, and HealthHelp reserves the right to review and update these clinical guidelines periodically. HealthHelp reserves the right to include in these guidelines the clinical indications as appropriate for the organization's program objectives. Therefore the guidelines are not a list of all the clinical indications for a stated procedure, and associated Procedure Code Tables may not represent all codes available for that state procedure or that are managed by a specific client-organization.

Clinician Review

These clinical guidelines neither preempt clinical judgment of trained professionals nor advise anyone on how to practice medicine. Healthcare professionals using these clinical guidelines are responsible for all clinical decisions based on their assessment. All Clinical Reviewers are

instructed to apply clinical indications based on individual patient assessment and documentation, within the scope of their clinical license.

Payment

The use of these clinical guidelines does not provide authorization, certification, explanation of benefits, or guarantee of payment; nor do the guidelines substitute for, or constitute, medical advice. Federal and State law, as well as member benefit contract language (including definitions and specific contract provisions/exclusions) take precedence over clinical guidelines and must be considered first when determining eligibility for coverage. All final determinations on coverage and payment are the responsibility of the health plan. Nothing contained within this document can be interpreted to mean otherwise.

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National and Local Coverage Determination (NCD and LCD)

NOTICE
To ensure appropriate review occurs to the most current NCD and/or LCD, always defer to https://www.cms.gov/medicare-coverage-database/search.aspx.

Background

National Coverage Determinations (NCD) and Local Coverage Determinations (LCD) are payment policy documents outlined by the Centers for Medicare and Medicaid Services (CMS) and the government's delegated Medicare Audit Contractors (MACs) that operate regionally in jurisdictions.
CMS introduced variation between different jurisdictions/Medicare Audit Contractors (MACs) and their associated covered code lists with the transition to ICD 10. The variation resulted in jurisdictions independently defining how codes are applied for exclusions, limitations, groupings, ranges, etc. for the medical necessity indications outlined in the NCD and LCD. Due to this variation, there is an inconsistent use/application of codes and coverage determinations across the United States between the different MACs.

In addition, **WITHOUT** notice, CMS can change the codes that indicate medical necessity and the format of the coverage determinations/associated documents (eg, Articles). This is an additional challenge for organizations to keep up with ongoing, unplanned changes in covered codes and medical necessity indications.

Medical Necessity Codes

Due to the variation in code application between jurisdictions/MACs and that updates can happen without notification, HealthHelp is not able to guarantee full accuracy of the codes listed for any Coverage Determination, and advises that prior to use, the associated Coverage Determination Articles are reviewed to ensure applicability to HealthHelp's programs and any associated NCDs and LCDs.

For Internal Use Only:

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