Medical Coverage Policy

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Inpatient Admission for Radiation Therapy

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INSTRUCTIONS FOR USE
The following Coverage Policy applies to health benefit plans administered by Cigna Companies. Certain Cigna Companies and/or lines of business only provide utilization review services to clients and do not make coverage determinations. References to standard benefit plan language and coverage determinations do not apply to those clients. Coverage Policies are intended to provide guidance in interpreting certain standard benefit plans administered by Cigna Companies. Please note, the terms of a customer's particular benefit plan document [Group Service Agreement, Evidence of Coverage, Certificate of Coverage, Summary Plan Description (SPD) or similar plan document] may differ significantly from the standard benefit plans upon which these Coverage Policies are based. For example, a customer's benefit plan document may contain a specific exclusion related to a topic addressed in a Coverage Policy. In the event of a conflict, a customer's benefit plan document always supersedes the information in the Coverage Policies. In the absence of a controlling federal or state coverage mandate, benefits are ultimately determined by the terms of the applicable benefit plan document. Coverage determinations in each specific instance require consideration of 1) the terms of the applicable benefit plan document in effect on the date of service; 2) any applicable laws/regulations; 3) any relevant collateral source materials including Coverage Policies and; 4) the specific facts of the particular situation. Each coverage request should be reviewed on its own merits. Medical directors are expected to exercise clinical judgment and have discretion in making individual coverage determinations. Coverage Policies relate exclusively to the administration of health benefit plans. Coverage Policies are not recommendations for treatment and should never be used as treatment guidelines. In certain markets, delegated vendor guidelines may be used to support medical necessity and other coverage determinations.

Overview

This Coverage Policy addresses inpatient admissions to administer radiation therapy.

Coverage Policy

Inpatient admission for radiation therapy is considered medically necessary for ANY of the following:

- **Low-dose rate (LDR) brachytherapy**
- **Interstitial high-dose rate (HDR) brachytherapy**
- **HDR brachytherapy requiring treatment over two or more days**
- **Eye plaque therapy**

General Background

Radiation therapy is the specific use of high-energy radiation from x-rays, gamma rays, neutrons and other sources to treat cancer. Radiation may be delivered from an external source or from radioactive materials that are placed inside the body. It may also be referred to as radiotherapy. Radiation therapy injures or destroys cells in the area being treated by damaging their genetic material, making it impossible for these cells to continue to

grow and divide. The goals of radiation therapy are to damage as many cancer cells as possible, while limiting harm to nearby healthy tissue (National Cancer Institute [NCI], 2019).

Radiation therapy is typically provided on an outpatient basis. In unusual circumstances, there may be situations in which it is necessary that radiation therapy be administered during an inpatient confinement. Inpatient admission may be required for certain types and levels of radiation therapy, or prompted by complications of the cancer condition or an underlying or comorbid medical condition. Admission may be indicated when radiation therapy is being administered via the following: low-dose rate (LDR) brachytherapy, interstitial high-dose rate (HDR) brachytherapy, HDR brachytherapy requiring treatment over two or more days, and eye plaque therapy.

Brachytherapy, also referred to as internal radiation therapy, utilizes radiation that is placed internally very close to or inside the tumor. The radiation source is sealed in a holder called an implant. The implant may be in the form of pellets, ribbons, wires, needles, capsules, balloons, or seeds (ACS, 2017). This form of radiation therapy can be used to deliver high radiation doses to nearby tumor tissue, while sparing normal tissues located at more distant locations. A temporary intracavitary applicator may be used in this treatment. The device is surgically positioned in a body cavity and then afterloaded with radioactive material. Interstitial implantation represents another form of brachytherapy performed with surgical placement of temporary catheters or needles which are then afterloaded with radioactive material. Radioactive seeds may be implanted in vessels called plaques for treatment of eye cancers. Internal radiation has been used in the treatment of cancers of the head and neck, breast, uterus, thyroid, cervix and prostate (NCI, 2019).

In certain situations, an inpatient admission may be required when internal radiation methods are utilized. This is dependent on the type of radiation being used, and the dose and amount of radiation. LDR brachytherapy gives off low doses of radiation over long periods of time. Generally, LDR brachytherapy requires hospitalization for the length of time the radiation is used because an implant remains in the body for one to a few days. HDR brachytherapy gives off higher doses of radiation over several minutes and may be repeated twice a day over a few days, or once a day over the course of a few weeks. This may be performed on an outpatient basis since the radioactive source is removed after each treatment. However, if HDR involves multiple day treatments and the applicator is left in place, inpatient admission may be required (ACS, 2017).

The American Cancer Society (ACS, 2021) discussion on radiation therapy includes treatment options for each cancer type. Hospitalization was recommended for the following:

- Low-dose rate brachytherapy for cervical cancer, endometrial cancer, esophagus cancer, prostate cancer, uterine sarcoma, and vaginal cancer
- Plaque therapy with radiation seed for retinoblastoma in children and eye cancer (ocular melanoma)
- Internal radiation for nasopharyngeal cancer
- Metaiodobenzylguanidine (MIBG) radiotherapy for children with neuroblastoma
- Interstitial radiation and plesiobrachytherapy for penile cancer

The U.S. Nuclear Regulatory Commission (NRC) published guidelines regarding release of patients from the hospital who have been administered radioactive material. A hospital's policies regarding release of patients who have been administered radioactive material should conform to the NRC regulations. The regulations also contain guidelines regarding instructions for the institution to provide to patients who are released after administration of radioactive materials. The hospital may use these instructions or develop their own instructions that meet the requirements listed in the regulations. Additional instructions are needed for patients who are breast-feeding an infant or a child (NRC, 2020).

Conditions that may require inpatient hospitalization may be related to the radiation therapy or an underlying medical condition. This may occur when the treatment of the patient's medical condition cannot be managed in a less intensive setting such as outpatient or at home. These conditions may include, but are not limited to, the following:

- The patient has severe nausea and vomiting or fluid/electrolyte imbalance that is severe enough to result in dehydration that is not manageable in an outpatient or home setting.

- The patient may require inpatient hospitalization if pain is uncontrolled and cannot be managed in an outpatient or home setting.
- The patient has an infection that requires hospital level of care to treat.
- The patient has had recent surgery and continues to require hospital level of care and will be starting radiation therapy.
- The patient is receiving chemotherapy which requires inpatient hospitalization, along with radiation therapy.

Professional Societies/Organizations
The American Thyroid Association (ATA) published practice recommendations regarding radiation safety in the treatment of patients with thyroid diseases by radioiodine (^{131}I) (American Thyroid Association Taskforce On Radioiodine Safety, 2011). The recommendations comply with NRC regulations. It is noted that the NRC guidelines, allows release of treated patients from control of the treating facility with higher levels of radioactivity than previously permissible (before 1997). This removed the restrictions that mandated a hospital stay in isolation for patients treated with 33 mCi (1221 MBq) of ^{131}I. The ATA recommendations note that it is apparent that it is not necessary for most patients treated with ^{131}I to be admitted as inpatient and "the current NRC patient Release Criteria allow most patients to be treated with ^{131}I as outpatients".

The ATA guidelines include recommendations to consider ^{131}I therapy as an inpatient and consult RSO (Radiation Safety Officer) when:

- The proposed ^{131}I dose is either:
  - ≥200 mCi (7400 MBq)
  - TEDE (total dose effective equivalent in mrem or mSv), despite written instructions, is likely to exceed, 0.5 rem (5 mSv) to an adult family member or caregiver, or to exceed 0.1 rem (1 mSv) to a pregnant woman, child or a member of the general public.
- The patient is unable to comply with oral and written instructions and therefore will require special planning because of:
  - incontinence issues
  - requires help with devices (e.g., Foley catheters, peritoneal dialysis equipment, feeding tubes)
  - cognitive/psychiatric limitations
  - travel/housing limitations

Use Outside of the US
No relevant information.

Medicare Coverage Determinations

	Contractor	Determination Name/Number	Revision Effective Date
NCD		No National Coverage Determination found	
LCD		No Local Coverage Determination found	

Note: Please review the current Medicare Policy for the most up-to-date information.

Coding/Billing Information

Note: 1) This list of codes may not be all-inclusive.
2) Deleted codes and codes which are not effective at the time the service is rendered may not be eligible for reimbursement.

Considered Medically Necessary when criteria in the applicable policy statements listed above are met:

Revenue Codes*	Description
0333	Radiation Therapy
0342	Nuclear Medicine-Therapeutic
0344	Therapeutic Radiopharmaceuticals

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