CHAPTER 5
SECTION 3.2

BRACHYTHERAPY/RADIATION THERAPY

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I. CPT[1] PROCEDURE CODES

19296, 19298, 77326 - 77328, 77750 - 77799, 79440

II. DESCRIPTION

A. Brachytherapy is a type of radiation therapy in which the radiation source is placed within or very close to the body area being treated. Brachytherapy involves the use of radioactive isotopes as the radiation source, permanently or temporarily implanted, in the form of wires or seeds, into or near malignant tumors that are unresectable or recurrent following previous resection or radiotherapy. Commonly used radioisotopes include gold (198 Au), iodine (125 I), iridium (192 Ir), californium (252 Cf), cesium (137 Cs), and palladium (103 Pd).

B. Electronic brachytherapy is an alternative to radioactive brachytherapy. It can be delivered in one or multiple fractions. By definition, it is the delivery of brachytherapy (radiation directly on or into the target) with electronic systems rather than a radionuclide. Because of the low-energy x-ray source, the electronic brachytherapy use location is not limited to the shielded therapy suites necessary for linear accelerators and Iridium-192 High Dose Radiation (HDR) after-loading brachytherapy. The intended use of the electronic brachytherapy system is when a physician chooses to deliver intracavitary or interstitial radiation to the surgical margins after lumpectomy for breast cancer. However, the long-term safety and efficacy of the electronic brachytherapy procedure for the treatment of breast cancer have not been determined.

III. POLICY

A. Benefits may be extended for brachytherapy.

B. Radioactive chromic phosphate synoviorthesis in the treatment of hemophilia patients with hemarthrosis and/or synovitis is covered when the medical record documents that more conservative therapies have failed. CPT[1] procedure codes that apply are:

1. 79440 (Intra-articular radionuclide therapy).

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2. 77750 (Infusion or instillation of radioelement).

C. Other brachytherapy techniques and devices (including medically necessary related supplies) are covered under the program only when it has received permission or approval for marketing by the U.S. Food and Drug Administration (FDA) and used according to the labeled indication on or after the day of FDA approval of the device (i.e., the MammoSite Brachytherapy System).

IV. POLICY CONSIDERATIONS

A. There are no categorical limitations on the use of brachytherapy, and indications and patient selection will vary as with any other form of radiotherapy.

B. Following is a list of conditions for which brachytherapy has been used. This list is not all-inclusive and should not be used as such:

1. Cervical, uterine, and prostate cancer.

2. Brain tumors, alone or combined with external beam radiation therapy.

3. Palliative treatment of bronchogenic carcinoma.

4. Adjuvant therapy of:

   Breast cancer.
   Renal cell carcinoma.
   Skin cancer.
   Head and neck cancer.
   Choroidal melanoma.
   Pancreatic carcinoma.
   Liver metastases.
   Bile duct carcinoma.
   Vaginal and vulvar carcinoma.
   Bladder carcinoma.
   Sacral chordoma.
   Childhood and adult sarcomas.
   Esophageal carcinoma.
   Retinoblastoma.
   Rectal carcinoma.

V. EXCLUSIONS

Brachytherapy, when administered through an high-dose-rate electronic brachytherapy system (i.e., Axxemt™ Electronic Brachytherapy System - CPT[2] procedure code 0182T), as an adjunct to, or for the sole treatment of patients with breast cancer is unproven.

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