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OVERVIEW

Electronic brachytherapy is a form of radiotherapy designed to deliver high-dose rate radiation to treat nonmelanoma skin cancer. This technique focuses a uniform dose of X-ray source radiation to the lesion with the aid of a shielded surface application. This policy is applicable for Commercial members only.

This policy is applicable to Commercial Products only. For Blue CHiP for Medicare, see related policy section.

MEDICAL CRITERIA

Commercial Products

Not applicable

PRIOR AUTHORIZATION

Commercial Products

Not applicable

POLICY STATEMENT

Commercial Products

Electronic brachytherapy for the treatment of nonmelanoma skin cancer is considered not medically necessary due to a lack of peer-reviewed scientific literature proving the efficacy of the service.

COVERAGE

Please refer to the appropriate Benefit Booklet, Evidence of Coverage, or Subscriber Agreement for limitations of benefits/coverage when services are not medically necessary.

BACKGROUND

Squamous cell carcinoma and basal cell carcinoma are the most common types of nonmelanoma skin cancer in the United States, affecting between 1 and 3 million people per year and increasing at a rate of 3% to 8% per year. Other types (e.g., T-cell lymphoma, Merkel cell tumor, basosquamous carcinoma, Kaposi sarcoma) are much less common. The primary risk factor for nonmelanoma skin cancer is sun exposure, with additional risk factors such as toxic exposures, other ionizing radiation exposure, and immunosuppression playing smaller roles. Although these cancers rarely cause mortality, they can impact quality of life, functional status, and physical appearance.

Treatment of nonmelanoma skin cancer is primarily surgical. The choice of surgical procedure depends on the histologic type and size and location of the lesion. Patient characteristics and preferences may also be part of the decision-making process, with consideration of comorbidities, patient risk factors (e.g., anticoagulation), and cosmetic outcomes. Local excisional procedures, such as electrodesiccation and curettage or cryotherapy, can be used for low-risk lesions, while surgical excision is indicated for lesions that are not low risk. Mohs surgery is a type of excisional procedure that uses microscopic guidance to achieve greater precision and sparing of normal tissue. In patients who meet criteria for Mohs surgery, 5-year cure rates for basal cell cancer range from 98% to 99%, making Mohs surgery the preferred procedure for those who qualify.

Radiotherapy is indicated for certain nonmelanoma skin cancers not amenable to surgery. In some cases, this is due to the location of the lesion on the eyelid, nose, or other structures that make surgery more difficult and which may be expected to have a less desirable cosmetic outcome. In other cases, surgery may be relatively contraindicated due to clinical factors such as bleeding risk or advanced age. In elderly patients with a relatively large tumor that would require extensive excision, the benefit/risk ratio for radiotherapy may be considered favorable. The 5-year control rates for radiotherapy are range from 80% to 92%, which is lower than that of surgical excision. A 1997 randomized controlled trial reported that radiotherapy for basal cell carcinoma resulted in greater numbers of persistent and recurrent lesions compared with surgical excision.

When radiotherapy is used for nonmelanoma skin cancer, the primary modality is external beam radiation. A number of different brachytherapy techniques have also been developed, including low-dose rate systems, iridium-based systems, and high-dose rate (HDR) systems.

Electronic brachytherapy is a form of radiotherapy delivered locally. Available systems for the treatment of nonmelanoma skin cancers are designed to deliver HDR brachytherapy for the treatment of skin surface lesions. This technique is feasible for well-circumscribed, superficial tumors because it focuses a uniform dose of X-ray source radiation on the lesion with the aid of a shielded surface application. A pliable mold is constructed of silicone or polymethyl-methacrylate and fitted to the tumor surface. This mold allows treatment to be delivered to nonflat surfaces such as the nose or ear. A radioactive source is then inserted into the mold to contact the tumor and deliver a uniform radiation dosage. Potential advantages of this treatment modality compared with standard radiotherapy include a shorter treatment schedule and the avoidance of radioisotopes and a dedicated treatment vault.

For individuals who have nonmelanoma skin cancer who receive electronic brachytherapy, the evidence is insufficient to determine the effects of the technology on health outcomes. Therefore, the service is considered not medically necessary.

CODING

The following CPT code is considered not medically necessary when filed with the ICD-10 diagnosis codes below for Commercial products.

0394T High dose rate electronic brachytherapy, skin surface application, per fraction, includes basic dosimetry, when performed

ICD-10 Diagnosis Code Range C44.00 - C44.99

RELATED POLICIES

BlueCHiP for Medicare National and Local Coverage Determinations Policy
CPT Category III Codes

PUBLISHED

Provider Update, December 2017
Provider Update, October 2016

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