Medical Policy
Electronic Brachytherapy for Nonmelanoma Skin Cancer

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Policy Number: 739
BCBSA Reference Number: 8.01.62
NCD/LCD: Local Coverage Determination (LCD): Category III CPT® Codes (L33392)

Related Policies
None

Policy
Commercial Members: Managed Care (HMO and POS), PPO, and Indemnity

Electronic brachytherapy for the treatment of nonmelanoma skin cancer is considered INVESTIGATIONAL.

Medicare HMO BlueSM and Medicare PPO BlueSM Members

This is not a covered service.

Local Coverage Determination (LCD): Category III CPT® Codes (L33392)

For medical necessity criteria and coding guidance for Medicare Advantage members living outside of Massachusetts, please see the Centers for Medicare and Medicaid Services website for information regarding your specific jurisdiction at https://www.cms.gov.

Prior Authorization Information
Pre-service approval is required for all inpatient services for all products.

See below for situations where prior authorization may be required or may not be required.
Yes indicates that prior authorization is required.
No indicates that prior authorization is not required.
N/A indicates that this service is primarily performed in an inpatient setting.

<table>
<thead>
<tr>
<th>Inpatient</th>
<th>Outpatient</th>
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<tbody>
<tr>
<td>Commercial Managed Care (HMO and POS)</td>
<td>This not a covered service.</td>
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<tr>
<td>Commercial PPO and Indemnity</td>
<td>This not a covered service.</td>
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<tr>
<td>Medicare HMO BlueSM</td>
<td>This not a covered service.</td>
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</table>
CPT Codes / HCPCS Codes / ICD Codes
Inclusion or exclusion of a code does not constitute or imply member coverage or provider reimbursement. Please refer to the member’s contract benefits in effect at the time of service to determine coverage or non-coverage as it applies to an individual member.

Providers should report all services using the most up-to-date industry-standard procedure, revenue, and diagnosis codes, including modifiers where applicable.

The following codes are included below for informational purposes only; this is not an all-inclusive list.

The following CPT code is considered investigational for Commercial Members: Managed Care (HMO and POS), PPO, Indemnity, Medicare HMO Blue and Medicare PPO Blue:

<table>
<thead>
<tr>
<th>CPT codes</th>
<th>Code Description</th>
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<tr>
<td>0394T</td>
<td>High dose rate electronic brachytherapy, skin surface application, per fraction, includes basic dosimetry, when performed</td>
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Description
Nonmelanoma Skin Cancer
Nonmelanoma skin cancer consists primarily of squamous cell carcinoma and basal cell carcinoma, with other types (eg, T-cell lymphoma, Merkel cell tumor, basosquamous carcinoma, Kaposi sarcoma) being much less common. Basal and squamous cell carcinoma are the most common types of malignancy in the United States, affecting between 1 and 3 million people per year and increasing at a rate of 3% to 8% per year. 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 such as anticoagulation, and cosmetic outcomes. Local excisional procedures, such as electrodessication 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 are in the range of 98% to 99%, making Mohs surgery the preferred procedure for those who qualify.

Radiotherapy is indicated for certain nonmelanoma skin cancers that are 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 in the range of 80% to 92%, which is lower than for surgical excision. A randomized controlled trial published in 1997 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 HDR systems.

**Electronic Brachytherapy**
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. It focuses a uniform dose of x-ray source radiation to 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.

**Summary**
There is a small body of evidence that evaluates electronic brachytherapy as a treatment for nonmelanoma skin cancer. This evidence consists entirely of case series, usually with a mixed patient population of basal and squamous cell carcinomas. No controlled trials were identified that compared electronic brachytherapy with alternative treatment options. The case series report low rates of recurrence, ranging from 0% to 3.1%, at follow-up periods ranging from 10 to 66 months. Skin toxicity is relatively common, but usually mild, and the adverse events reported in the literature are confined to Radiation Therapy Oncologic Group grade 1 and 2 toxicity. It is not possible to determine from this evidence whether outcomes of electronic brachytherapy are as good as with alternative treatment options. Controlled trials are needed that compare electronic brachytherapy with alternatives, either other forms of radiotherapy or surgical approaches. As a result of the lack of high-quality evidence on efficacy, electronic brachytherapy is considered investigational for the treatment on nonmelanoma skin cancer.

**Policy History**

<table>
<thead>
<tr>
<th>Date</th>
<th>Action</th>
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<tr>
<td>8/2017</td>
<td>New references added from BCBSA National medical policy.</td>
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<td>10/2016</td>
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**Information Pertaining to All Blue Cross Blue Shield Medical Policies**
Click on any of the following terms to access the relevant information:
- Medical Policy Terms of Use
- Managed Care Guidelines
- Indemnity/PPO Guidelines
- Clinical Exception Process
- Medical Technology Assessment Guidelines

**References**