Medical Policy
Radioactive Seed Localization of Nonpalpable Breast Lesions

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- Policy: Medicare
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Policy Number: 469
BCBSA Reference Number: 6.01.57

Related Policies
None

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

Radioactive seed localization of nonpalpable breast lesions may be considered MEDICALLY NECESSARY as an alternative to wire localization or radioguided localization.

Prior Authorization Information
Commercial Members: Managed Care (HMO and POS)
Prior authorization is NOT required.

Commercial Members: PPO, and Indemnity
Prior authorization is NOT required.

Medicare Members: HMO Blue™
Prior authorization is NOT required.

Medicare Members: PPO Blue™
Prior authorization is NOT required.

CPT Codes / HCPCS Codes / ICD-9 Codes
The following codes are included below for informational purposes. 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.

## CPT Codes

<table>
<thead>
<tr>
<th>CPT codes</th>
<th>Code Description</th>
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</thead>
<tbody>
<tr>
<td>19081</td>
<td>Biopsy, breast, with placement of breast localization device(s) (eg, clip, metallic pellet), when performed, and imaging of the biopsy specimen, when performed, percutaneous; first lesion, including stereotactic guidance</td>
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<tr>
<td>19082</td>
<td>Biopsy, breast, with placement of breast localization device(s) (eg, clip, metallic pellet), when performed, and imaging of the biopsy specimen, when performed, percutaneous; each additional lesion, including stereotactic guidance (List separately in addition to code for primary procedure)</td>
</tr>
<tr>
<td>19083</td>
<td>Biopsy, breast, with placement of breast localization device(s) (eg, clip, metallic pellet), when performed, and imaging of the biopsy specimen, when performed, percutaneous; first lesion, including ultrasound guidance</td>
</tr>
<tr>
<td>19084</td>
<td>Biopsy, breast, with placement of breast localization device(s) (eg, clip, metallic pellet), when performed, and imaging of the biopsy specimen, when performed, percutaneous; each additional lesion, including ultrasound guidance (List separately in addition to code for primary procedure)</td>
</tr>
<tr>
<td>19085</td>
<td>Biopsy, breast, with placement of breast localization device(s) (eg, clip, metallic pellet), when performed, and imaging of the biopsy specimen, when performed, percutaneous; first lesion, including magnetic resonance guidance</td>
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<tr>
<td>19086</td>
<td>Biopsy, breast, with placement of breast localization device(s) (eg, clip, metallic pellet), when performed, and imaging of the biopsy specimen, when performed, percutaneous; each additional lesion, including magnetic resonance guidance (List separately in addition to code for primary procedure)</td>
</tr>
<tr>
<td>19281</td>
<td>Placement of breast localization device(s) (eg, clip, metallic pellet, wire/needle, radioactive seeds), percutaneous; first lesion, including mammographic guidance</td>
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<tr>
<td>19282</td>
<td>Placement of breast localization device(s) (eg, clip, metallic pellet, wire/needle, radioactive seeds), percutaneous; each additional lesion, including mammographic guidance (List separately in addition to code for primary procedure)</td>
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<tr>
<td>19283</td>
<td>Placement of breast localization device(s) (eg, clip, metallic pellet, wire/needle, radioactive seeds), percutaneous; first lesion, including stereotactic guidance</td>
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<td>19284</td>
<td>Placement of breast localization device(s) (eg, clip, metallic pellet, wire/needle, radioactive seeds), percutaneous; each additional lesion, including stereotactic guidance (List separately in addition to code for primary procedure)</td>
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<td>19285</td>
<td>Placement of breast localization device(s) (eg, clip, metallic pellet, wire/needle, radioactive seeds), percutaneous; first lesion, including ultrasound guidance</td>
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<td>19286</td>
<td>Placement of breast localization device(s) (eg, clip, metallic pellet, wire/needle, radioactive seeds), percutaneous; each additional lesion, including ultrasound guidance (List separately in addition to code for primary procedure)</td>
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<tr>
<td>19287</td>
<td>Placement of breast localization device(s) (eg clip, metallic pellet, wire/needle, radioactive seeds), percutaneous; first lesion, including magnetic resonance guidance</td>
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<tr>
<td>19288</td>
<td>Placement of breast localization device(s) (eg clip, metallic pellet, wire/needle, radioactive seeds), percutaneous; each additional lesion, including magnetic resonance guidance (List separately in addition to code for primary procedure)</td>
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<tr>
<td>76942</td>
<td>Ultrasonic guidance for needle placement (eg, biopsy, aspiration, injection, localization device), imaging supervision and interpretation</td>
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## HCPCS Codes

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<th>Code Description</th>
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<tr>
<td>A4648</td>
<td>Tissue marker, implantable, any type, each</td>
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Description
Radioactive seed localization is used to identify the location of nonpalpable breast lesions, which have become more common with increasing use of breast cancer screening in asymptomatic women. This technique is used to target breast-conserving surgery or excisional biopsies, or to identify the location of the original cancer after neoadjuvant chemotherapy. A radiologist places a titanium “seed” containing radioactive I-125 with an 18-gauge needle using ultrasound, mammography, or stereotactic guidance. The surgeon then locates the seed and the breast tissue that needs to be removed, using a gamma probe. Alternative methods to localize nonpalpable breast lesions include wire localization, the traditional approach, or radioguided occult lesion localization.

Background
More nonpalpable lesions are currently detected (about 25% to 35% of breast cancers at diagnosis) due to the increased use of breast screening in asymptomatic women. These nonpalpable lesions require a localization technique to perform excisional biopsies or breast-conserving surgery (i.e., lumpectomy).

Radioactive seed localization on nonpalpable breast lesions uses radio-opaque titanium seed(s) containing radioactive I-125. These seeds are inserted by a radiologist using ultrasound or stereotactic guidance to identify the location of a nonpalpable breast lesion. They may be placed several days or weeks before surgery. The surgeon then uses a gamma probe to locate the radioactive seed and remove it with surrounding tissue. One study mentioned that the radiation dose associated with the I-125 seeds (0.29 mCi) was less than for a mammogram or chest X-ray. The radioactive dose in one group of studies ranged from 3.7 to 10.7 MBq (one megabecquerel [MBq] equals 0.027 millicuries). The seed was 4.5 x .8 mm, which has been described as similar to a grain of rice. The half-life of I-125 is 60 days and I-125 is a 27-keV source of gamma radiation. It can be detected on a different signal than the 140-keV Tc-99 that may be used for sentinel lymph node biopsy. Once the radioactive seed is removed, its presence in the tumor specimen is confirmed using the gamma probe, and the lack of radioactivity in the tumor cavity is also assessed to ensure that the radioactive seed has not been left in the breast. A disadvantage of radioactive seed localization is that special procedures must be followed to safely handle and track the radioactive seed, before placement and after excision. In one public hospital (i.e., in clinical practice), a seed was lost following excision, and procedures were changed to prevent recurrence.

Radioactive seed localization may also be used to guide excision after neoadjuvant chemotherapy, which is performed primarily in women with locally advanced cancer in an effort to shrink the tumor. About 25% to 32% of these women are then able to have breast-conserving surgery rather than mastectomy. The challenge is that if there is a complete clinical and radiological response, it may be difficult to localize the original tumor bed. Pathologic confirmation of response is needed since there is residual microscopic cancer in about half of these patients. Radioactive seed localization can mark the tumor location before beginning neoadjuvant chemotherapy.

The traditional localization method for nonpalpable breast lesions is image-guided wire localization. This approach has limitations including the following: the wire can bend or be displaced (since the wire protrudes from the breast); there may be scheduling issues, because the wire should be placed on the same day as the surgery; and the radiologist may follow a different route to place the wire than the surgeon does to excise the lesion, which may make it more difficult to locate all of the lesion and may worsen cosmetic outcomes. The percentage of cases with positive margins following wire localization ranges from 14% to 47%.

An alternative developed in the late 1990s is radioguided occult lesion localization (ROLL). First, a twist marker is placed in the breast to mark the tumor. Prior to surgery, a liquid radioactive radiotracer (Tc-99) is injected next to the twist marker using image guidance. Again, the surgeon uses a gamma probe to locate the radiotracer and guide the incision. The main disadvantage of this approach is that the radiotracer has a short half-life of about 6 hours. It also does not provide a point source of radiation as radioactive seed localization does. An advantage is that Tc-99 may also be used for sentinel lymph node biopsy, so the same radiotracer is used for both purposes. On the other hand, the radioactive seed and Tc-99 for sentinel lymph node biopsy can also be used concurrently.
A final alternative is intraoperative ultrasound-guided resection, although it is discussed less frequently in this literature. It can only be used when the lesion can be detected using ultrasound. No studies comparing this approach to radioactive seed localization was found.

Radioguided seed localization was first tested in a randomized trial in 2001. Based on the number of publications and systematic reviews, there appears to have been an increased interest in this technique since about 2010.

**Summary**

Radioactive seed localization is an alternative technique to wire localization or radioguided occult lesion localization among women with nonpalpable breast lesions. It may be used before excisional biopsy or breast-conserving surgery, with or without neoadjuvant chemotherapy. The clinical outcomes of these three localization techniques are likely to be equivalent. Therefore, radioactive seed localization of nonpalpable breast lesions may be considered not medically necessary when it is determined that it is generally more costly than wire localization or radioguided occult lesion localization.

**Policy History**

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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**