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Originated Department	Clinical Operations

SCINTIMAMMOGRAPHY AND GAMMA IMAGING OF THE BREAST AND AXILLA

Audience

Medical Management

Purpose

Medical policies provide general support for applying Mountain Health Co-Op member policy document coverage decisions and must reference the member-specific benefit plan document. The terms of the member-specific Policy document may differ from the standard benefit plan on which this medical policy is based. If there is a conflict between a member-specific policy document and the Mountain Health Co-Op medical policy, the member-specific policy document supersedes this medical policy. Any person(s) applying this medical policy must identify member eligibility, the member-specific policy document, and related policies or guidelines before applying this medical policy, including the existence of any state or federal guidance. Mountain Health Co-Op medical policies are designed for informational purposes only and are not an authorization, explanation of benefits, or contract. Receipt of benefits is subject to satisfaction of all terms and conditions of the member-specific policy document coverage. Mountain Health Co-Op reserves the sole discretionary right to modify all policies and guidelines at any time.

Definition

N/A

Policy/Procedure

Description:

Scintimammography, breast-specific gamma imaging (BSGI), and molecular breast imaging (MBI) use radiotracers in nuclear medicine to detect breast abnormalities. These tests differ in gamma camera technology, which may improve diagnostic performance for detecting small lesions. BSGI uses a single-head breast-specific gamma camera and a compression device, whereas MBI uses dual-head breast-specific gamma cameras that also produce breast compression. Preoperative lymphoscintigraphy and/or intraoperative handheld gamma detection of sentinel lymph nodes are

methods used to identify them for biopsy after radiotracer injection. Surgical removal of one or more sentinel lymph nodes is an alternative to complete axillary lymph node dissection for staging evaluation and management of breast cancer.

Scintimammography, BSGI, and MBI for Diagnosis
For individuals who have dense breasts or a high risk for breast cancer who receive scintimammography, BSGI, or MBI as an adjunct to mammography, the evidence includes diagnostic accuracy studies. Relevant outcomes are overall survival, disease-specific survival, test validity, and treatment-related morbidity. Three prospective studies have assessed the incremental difference in diagnostic accuracy when BSGI or MBI is added to mammography in women at increased risk. Sensitivity was higher with combined BSGI or MBI and mammography, but specificity was lower. Studies of women at increased risk of breast cancer and negative mammograms found that a small number of additional cancers were detected, but the recall rate was relatively high. Studies tended to include women at different risk levels (e.g., women with dense breasts and those with *BRCA1*). Moreover, any potential benefits must be weighed against the risks of additional radiation exposure. The evidence is insufficient to determine the technology's effects on health outcomes.

Scintimammography, breast-specific gamma imaging (BSGI), and molecular breast imaging (MBI) are considered **investigational** in all applications, including but not limited to its use as an adjunct to mammography or in staging the axillary lymph nodes. There is insufficient evidence to support a general conclusion concerning the health outcomes or benefits associated with these procedures. As such, it will not be noncovered consistent with plan documents.

Radiopharmaceutical and Gamma Detection for Treatment
For individuals who have breast cancer undergoing sentinel lymph node biopsy for detection of axillary metastases who receive radiopharmaceutical and gamma detection for localization of sentinel lymph nodes, the evidence includes three studies and a meta-analysis. Relevant outcomes are overall survival, disease-specific survival, test validity, and treatment-related morbidity. A meta-analysis and three additional studies have shown that using radiopharmaceuticals and gamma detection for sentinel lymph node localization yields high success rates; additionally, diagnostic performance generally achieves higher detection rates with radiopharmaceuticals than with alternative methods (e.g., using only blue dye). The evidence has indicated that sentinel lymph node biopsy provides similar long-term outcomes as complete axillary lymph node dissection for control of breast cancer and offers more favorable early results with reduced arm swelling and better quality of life. The evidence is sufficient to determine that technology results in a meaningful improvement in the net health outcome.

Use of radiopharmaceutical administration and gamma detection (lymphoscintigraphy) for the localization of sentinel lymph nodes in individuals with breast cancer may be considered medically necessary. It will be covered when the appropriate criteria for medical necessity are met.

1. Staging for breast cancer; **OR**
2. Staging melanoma

The most commonly used radiopharmaceutical for breast-specific gamma imaging (molecular breast imaging) is technetium-99 m (Tc-99 m) sestamibi. The most frequently used

radiopharmaceuticals for sentinel lymph node detection, whether via lymphoscintigraphy or handheld gamma detection, include Tc-99m-labeled colloids (e.g., sulfur colloid).

Technetium 99m (Tc99m) sestamibi is not indicated for breast cancer screening and is considered **investigational**, and it will not be non-covered consistent with plan documents.

Scintimammography and BSGI for Treatment
For individuals who have breast cancer undergoing detection of residual tumor after neoadjuvant therapy who receive scintimammography and BSGI, the evidence includes diagnostic accuracy studies and a meta-analysis. Relevant outcomes are overall survival, disease-specific survival, test validity, and treatment-related morbidity. The meta-analysis of studies evaluating the accuracy of BSGI for detecting residual tumor after neoadjuvant therapy found a pooled sensitivity of 86% and a pooled specificity of 69%, compared with histopathologic analysis. No studies were identified that compared the diagnostic accuracy of BSGI with other imaging approaches or investigated the clinical utility of this potential application. The evidence is insufficient to determine the effects of technology on health outcomes. **Scintimammography and BSGI for treatment are considered Investigational. As such, it will not be non-covered, consistent with plan documents**.

For individuals who have breast cancer undergoing surgical planning for breast-conserving therapy who receive scintimammography and BSGI, the evidence includes a retrospective observational study. Relevant outcomes are overall survival, disease-specific survival, test validity, and treatment-related morbidity.

In the retrospective study, results suggested that magnetic resonance imaging identified more patients than BSGI who were not appropriate candidates for breast-conserving therapy. Prospective comparative studies are needed. The evidence is insufficient to determine the technology's effects on health outcomes.

For individuals who have breast cancer undergoing detection of axillary metastases who receive scintimammography and BSGI, the evidence includes diagnostic accuracy studies and systematic reviews of diagnostic accuracy studies. Relevant outcomes are overall survival, disease-specific survival, test validity, and treatment-related morbidity. A meta-analysis of diagnostic accuracy studies found that the sensitivity and specificity of BSGI are insufficient for this technology to replace the current standard practice, surgical nodal dissection. The evidence is insufficient to determine the effects of technology on health outcomes.

CPT Codes

S8080 Scintimammography (radioimmunoscintigraphy of the breast), unilateral, including supply of radiopharmaceutical

78195 Under Diagnostic Nuclear Medicine Procedures on the Hematopoietic, Reticuloendothelial and Lymphatic System

78800 Radiopharmaceutical localization of tumor, inflammatory process or distribution of radiopharmaceutical agent(s) (includes vascular flow and blood pool imaging, when performed); planar, single area (eg, head, neck, chest, pelvis), single day imaging

78801 Radiopharmaceutical localization of tumor, inflammatory process or distribution of radiopharmaceutical agent(s) (includes vascular flow and blood pool imaging, when performed); planar, 2 or more areas (eg, abdomen and pelvis, head and chest), 1 or more days imaging or single area imaging over 2 or more days

78835 Radiopharmaceutical quantification measurement(s) single area (List separately in addition to code for primary procedure)

A9500 Technetium Tc-99m sestamibi, diagnostic, per study dose, up to 40 millicuries

A9520 Technetium Tc-99m, tilmanocept, diagnostic, up to 0.5 mCi

A9541 Technetium Tc-99m sulfur colloid, diagnostic, per study dose, up to 20 mCi

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Vendors
• MedCom • Health Plan Services (HPS)

Review/Revision/Approval History	
Date	Description
07/03/2024	**New Policy**

1/2026	**Review and 2026 Updates**
4/27/2026	**Reviewed and Approved by Policy Committee**

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