

**EFFECTIVE DATE:** 01|01|2019  
**POLICY LAST UPDATED:** 01|01|2019

## OVERVIEW

Scintimammography refers to the use of radiotracers with nuclear medicine imaging as a diagnostic tool for abnormalities of the breast. Breast-specific gamma imaging (BSGI), or molecular breast imaging (MBI), refers to specific types of imaging machines that are used in conjunction with scintimammography to improve diagnostic performance.

This policy is applicable only for scintimammography. For use of gamma detection following radiopharmaceutical administration for localization of sentinel lymph nodes in patients with breast cancer please refer to the High-Tech Radiology policy.

## MEDICAL CRITERIA

Not applicable

## PRIOR AUTHORIZATION

Not applicable

## POLICY STATEMENT

### BlueCHiP for Medicare

Scintimammography, BSGI, and MBI are considered not covered in all applications, including but not limited to their use as an adjunct to mammography or in staging the axillary lymph nodes as the evidence is insufficient to determine the effects of the technology on health outcomes.

### Commercial Products

Scintimammography, BSGI, and MBI are considered not medically necessary in all applications, including but not limited to their use as an adjunct to mammography or in staging the axillary lymph nodes as the evidence is insufficient to determine the effects of the technology on health outcomes.

## COVERAGE

### BlueCHiP for Medicare and Commercial Products

Benefits may vary between groups and contracts. Please refer to the appropriate Benefit Booklet, Evidence of Coverage or Subscriber Agreement for applicable not medically necessary/not covered benefits/coverage.

## BACKGROUND:

Scintimammography is a diagnostic modality using radiopharmaceuticals to detect tumors of the breast. After injection of a radiopharmaceutical, the breast is evaluated with planar imaging. Scintimammography is performed with the patient lying prone and the camera positioned laterally, which increases the distance between the breast and the camera. Scintimammography using conventional imaging modalities has relatively poor sensitivity in detecting smaller lesions (e.g., smaller than 15 mm), because of the relatively poor resolution of conventional gamma cameras in imaging the breast.

BSGI and MBI were developed to address this issue. Breast-specific gamma cameras acquire images while the patient is seated in a position similar to that in mammography, and the breast is lightly compressed. The detector head(s) is immediately next to the breast, increasing resolution, and the images can be compared with the mammographic images. Breast-specific gamma imaging and molecular breast imaging differ primarily in

the type and number of detectors used (multi-crystal arrays of cesium iodide or sodium iodide versus semiconductor materials, such as cadmium zinc telluride, respectively). In some configurations, a detector is placed on each side of the breast and used to lightly compress it. The maximum distance between the detector and the breast is therefore from the surface to the midpoint of the breast. Much of the research on BSGI and MBI has been conducted at the Mayo Clinic. The radiotracer usually utilized is technetium Tc99m sestamibi. MBI imaging takes approximately 40 minutes.

Preoperative lymphoscintigraphy and/or intraoperative hand-held gamma detection of sentinel lymph nodes is a method of identifying sentinel lymph nodes for biopsy after radiotracer injection. Surgical removal of 1 or more sentinel lymph nodes is an alternative to full axillary lymph node dissection for staging evaluation and management of breast cancer. Several trials have compared outcomes following sentinel lymph node biopsy versus axillary lymph node dissection for managing patients with breast cancer.

For individuals who have indeterminate or suspicious breast lesions who receive scintimammography, BSGI, or MBI, the evidence includes diagnostic accuracy studies. Relevant outcomes are overall survival, Scintimammography and Gamma Imaging of the Breast and Axilla disease-specific survival, test validity, and treatment-related morbidity. In the available studies, compared with biopsy, the negative predictive value of BSGI (or MBI) varied from 83% to 94%. Given the relative ease and diagnostic accuracy of the criterion standard of biopsy, coupled with the adverse consequences of missing a breast cancer, the negative predictive value of BSGI (or MBI) would have to be extremely high to alter treatment decisions. The evidence to date does not demonstrate this level of negative predictive value. Moreover, the value of BSGI in evaluating indeterminate or suspicious lesions must be compared with other modalities that would be used, such as spot views for diagnostic mammography. The evidence is insufficient to determine the effects of the technology on health outcomes.

#### **CODING**

The following code is considered not covered for Blue CHIP for Medicare and not medically necessary for Commercial Products as an adjunct to mammography or in staging the axillary lymph nodes:

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

#### **RELATED POLICIES**

High-Tech Radiology

#### **PUBLISHED**

Provider Update, February 2019

Provider Update, June 2017

Provider Update, January 2017

Provider Update, April 2015

Provider Update, January 2014

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