Medical Coverage Policy | Digital Breast Tomosynthesis

EFFECTIVE DATE: 01/01/2015
POLICY LAST UPDATED: 12/16/2014

OVERVIEW

Digital breast tomosynthesis uses modified digital mammography equipment to obtain additional radiographic data that are used to reconstruct cross-sectional "slices" of breast tissue. Tomosynthesis may improve the accuracy of digital mammography by reducing problems caused by overlapping tissue. Tomosynthesis typically involves additional imaging time and radiation exposure, although recent improvements may change this.

PRIOR AUTHORIZATION

Prior authorization is not required.

POLICY STATEMENT

BlueCHiP for Medicare and Commercial

Digital breast tomosynthesis is covered and not separately reimbursed in the screening and diagnosis of breast cancer.

MEDICAL CRITERIA

None

BACKGROUND

Conventional mammography produces 2-dimensional (2D) images of the breast. Overlapping tissue on a 2D image can mask suspicious lesions or make benign tissue appear suspicious, particularly in women with dense breast tissue. As a result, women may be recalled for additional mammographic spot views. Inaccurate results may lead to unnecessary biopsies and emotional stress, or to a potential delay in diagnosis. Spot views often are used to evaluate microcalcifications, opacities, or architectural distortions; to distinguish masses from overlapping tissue; and to view possible findings close to the chest wall or in the retro-areolar area behind the nipple.(1) The National Cancer Institute reports that approximately 20% of cancers are missed at mammography screening.(2) Average recall rates are approximately 10%, with an average cancer detection rate of 4.7 per 1000 screening mammography examinations.(3) The Mammography Quality Standards Act audit guidelines anticipate 2 to 10 cancers detected per 1000 screening mammograms.(4) Interval cancers, which are detected between screenings, tend to have poorer prognoses.(5)

Digital breast tomosynthesis was developed to improve the accuracy of mammography by capturing 3-dimensional (3D) images of the breast, further clarifying areas of overlapping tissue. Developers proposed that its use would result in increased sensitivity and specificity, as well as fewer recalls due to inconclusive results.(6) Digital breast tomosynthesis produces a 3D image by taking multiple low-dose images per view along an arc over the breast. During breast tomosynthesis, the compressed breast remains stationary while the x-ray tube moves approximately 1° for each image in a 15° to 50° arc, acquiring 11 to 49 images.(7) These images are projected as cross-sectional "slices" of the breast, with each slice typically 1-mm thick. Adding breast tomosynthesis takes about 10 seconds per view. In 1 study in a research setting, mean time for interpretation of results was 1.22 (1.15) minutes for digital mammography and 2.39 (1.65) minutes for combined digital mammography and breast tomosynthesis.(8)

With conventional 2D mammography, breast compression helps decrease tissue overlap and improve visibility. By reducing problems with overlapping tissue, compression with breast tomosynthesis may be reduced by up to 50%. This change could result in improved patient satisfaction. (7)

A machine equipped with breast tomosynthesis can perform 2D digital mammography, 3D digital mammography, or a combination of both 2D and 3D mammography during a single compression. Radiation exposure from tomosynthesis is roughly equivalent to mammography. Therefore, adding tomosynthesis to mammography doubles the radiation dose, although it still is below the maximum allowable dose established in the U.S. Mammography Quality Standards Act.

Studies typically compare 1-view (ie, mediolateral oblique [MLO] view), or more commonly, 2-view (MLO plus craniocaudal view) breast tomosynthesis alone or combined with standard 2D mammography to standard 2D mammography alone. A 2014 TEC Assessment focused on 2-view tomosynthesis. The FDA Radiological Devices Panel, which reviewed this new modality in 2011, recommended that 2- view breast tomosynthesis is preferable to 1-view tomosynthesis (both used in combination with full-field digital mammography).

In May 2013, the U.S. Food and Drug Administration (FDA) approved new tomosynthesis software that permits creation of 2D images (called C view) from images obtained during tomosynthesis.(11) As a result, 2D mammography may become unnecessary, thereby lowering radiation dose. In other words, only the tomosynthesis procedure will be needed, and both 2D and 3D images will be created. It is too early to gauge how traditional mammography plus tomosynthesis compares with C view plus tomosynthesis. Additionally, tomosynthesis may be done as a "recall" service after review of the original mammogram. In such cases it is diagnostic, not screening.

COVERAGE

Benefits may vary between groups/contracts. Please refer to the appropriate Evidence of Coverage or Subscriber Agreement for applicable radiology services/benefits.

CODING

BlueCHiP for Medicare and Commercial.

Codes effective for claims after 1/1/2015:

The following services are covered but not separately reimbursed. These codes are reported in addition to the appropriate breast mammography code (CPT codes 77055- 77057) or (G0202 - G0206).

G0279	**+77063**

For BlueCHiP for Medicare and Commercial we are following CMS guidelines which states the following codes are invalid and services should be filed with HCPCS code G0279:

77061	**77062**

For claims prior to 1/1/2015:

There are no specific CPT codes for this testing. The testing should be reported with the appropriate breast mammography code (77055-77057 or G0202-G0206) along with unlisted CPT code 76499 for the additional views.

RELATED POLICIES

None

PUBLISHED

Provider Update	Jan 2015
Provider Update	May 2013
Provider Update	April 2012

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