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.

MEDICAL CRITERIA
Not applicable

PRIOR AUTHORIZATION
Not applicable

POLICY STATEMENT
BlueCHIP for Medicare and Commercial Products
Digital breast tomosynthesis is covered and not separately reimbursed in the screening and diagnosis of breast cancer.

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

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. The National Cancer Institute reports that approximately 20% of cancers are missed at mammography screening. Average recall rates are approximately 10%, with an average cancer detection rate of 4.7 per 1000 screening mammography examinations. The Mammography Quality Standards Act audit guidelines anticipate 2 to 10 cancers detected per 1000 screening mammograms. Interval cancers, which are detected between screenings, tend to have poorer prognoses.

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. 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. 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.

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.

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 (i.e., 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. 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.

**CODING**

**BlueCHiP for Medicare and Commercial Products**

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 (HCPCS codes G0202 - G0206).

- G0279 (file in addition to the Diagnostic Mammography code)
- 77063 (file in addition to the Screening Mammography code)

For BlueCHiP for Medicare and Commercial Products the following services should be filed with HCPCS code G0279:

- 77061
- 77062

**BlueCHiP for Medicare and Commercial Products:**

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 (Unlisted diagnostic radiographic procedure) for the additional views.

**RELATED POLICIES**

None

**PUBLISHED**

Provider Update, May 2016
Provider Update, January 2015
Provider Update, May 2013
REFERENCES


This medical policy is made available to you for informational purposes only. It is not a guarantee of payment or a substitute for your medical judgment in the treatment of your patients. Benefits and eligibility are determined by the member’s subscriber agreement or member certificate and/or the employer agreement, and those documents will supersede the provisions of this medical policy. For information on member-specific benefits, call the provider call center. If you provide services to a member which are determined to not be medically necessary (or in some cases medically necessary services which are non-covered benefits), you may not charge the member for the services unless you have informed the member and they have agreed in writing in advance to continue with the treatment at their own expense. Please refer to your participation agreement(s) for the applicable provisions. This policy is current at the time of publication; however, medical practices, technology, and knowledge are constantly changing. BCBSRI reserves the right to review and revise this policy for any reason and at any time, with or without notice. Blue Cross & Blue Shield of Rhode Island is an independent licensee of the Blue Cross and Blue Shield Association.