Medical Coverage Policy Policy Number – MP22-020E Original review date – 04/15/22 Effective date – 10/23/2024

Breast MRI

Background

Magnetic Resonance Imaging (MRI) is a non-invasive imaging modality that can demonstrate a wide variety of soft tissue lesions with contrast resolution that is often superior to computerized tomography scanning. MRI uses radio frequency radiation in the presence of a carefully controlled magnetic field to produce high quality cross-sectional images of the head and body in any plane. Among the advantages of MRI are the absence of ionizing radiation and the ability to achieve high levels of tissue contrast resolution without injected iodinated contrast agents.

Policy statement

I.

Disclaimer: This policy is applicable to TRICARE Prime and Select beneficiaries and may not apply to Active Duty Service Members (ADSM) under Supplemental Health Care Program (SHCP) or TRICARE Prime Remote (TPR) in accordance with TRICARE Operations Manual (TOM) Chapter 17, Section 3. Please review TOM Chapter 17, Section 3, Paragraph 2.0 onwards, regarding SHCP coverage and any TRICARE-specific exclusions included in this coverage policy to accurately determine the benefit for ADSMs.

Breast MRI may be covered if one of the following conditions are met:

- Breast abnormality evaluation needed, as indicated by one or more of the following:
 - a. Anatomic guidance during biopsy of breast lesion
 - b. Breast implant complication, suspected (eg, leak or rupture)
 - i. The implantation of the breast implants must have been covered by TRICARE
 - ii. The implantation of the breast implants were not originally covered by TRICARE and ALL of the following:
 - 1. Were a result of congenital anomaly or post-mastectomy reconstruction
 - 2. Is not for the diagnosis or treatment of any complications (e.g., implant damage, hardening, leakage, and autoimmune disorder) that result from implants done for cosmetic reasons only
 - c. Equivocal mammogram results and ALL of the following:
 - i. Breast lesion is nonpalpable, not visible or indeterminate on ultrasound, and not amenable to fine needle biopsy.
 - ii. Patient is candidate for MRI-directed needle biopsy
 - d. Nipple discharge, when etiology could not be determined by mammography and breast ultrasound
 - e. Negative mammogram and suspected Paget's disease, as indicated by 1 or more of the following:
 - i. Nipple or areolar bleeding





- ii. Nipple or areolar eczema
- iii. Nipple or areolar itching
- iv. Nipple or areolar ulceration
- II. Breast cancer, known, and one or more of the following:
 - a. After positive nipple-areolar biopsy for Paget disease, to define extent of disease and identify additional disease
 - b. Assessment of tumor response to neoadjuvant (preoperative) chemotherapy to determine appropriateness of breast-conserving surgery
 - c. For presurgical planning to evaluate the presence of multicentric disease in patients with localized or locally advanced breast cancer who are candidates for breast conservation treatment
 - d. To determine the presence of pectoralis major muscle/chest wall invasion in patients with posteriorly located tumor
 - e. Evaluation of invasive breast cancer (eg, lobular or ductal)
 - f. Evaluation of newly diagnosed patient, and mammogram is negative for contralateral breast involvement
 - g. Locoregional staging when there may be higher risk or suspicion of occult disease (eg, triplenegative breast cancer, BRCA1-positive or BRCA2-positive)
 - h. Postsurgery follow-up after breast cancer diagnosis, as indicated by one or more of the following:
 - i. Assessment for suspected tumor recurrence at lumpectomy site, and mammogram negative or equivocal
 - ii. Assessment of residual disease with close or positive margins after lumpectomy
 - iii. Surveillance in contralateral breast in patient suspected to be at higher risk (eg, BRCA1-positive or BRCA2-positive)
- III. Breast cancer screening (no prior diagnosis of breast or ovarian cancer in patient) and one or more of the following:
 - a. Carrier of high-risk breast cancer gene mutation (eg, BRCA1, BRCA2, CDH1, PALB2, PTEN, STK11, TP53)
 - b. Other high-risk family history of breast cancer, as indicated by one or more of the following:
 - i. Individual not of Ashkenazi Jewish ancestry, with one or more of the following:
 - First-degree or second-degree relative with breast cancer and one or more of the following:
 - a. Diagnosed at age 45 years or younger
 - b. Diagnosed at age 46 to 50 years, with an additional breast cancer primary (bilateral, or clearly separate ipsilateral diagnosed synchronously or asynchronously) diagnosed at any age
 - c. Diagnosed at age 46 to 50 years, with one or more close blood relatives with breast cancer diagnosed at any age
 - d. Diagnosed at age 46 to 50 years, with one or more close blood relatives with ovarian cancer diagnosed at any age
 - e. Diagnosed at age 46 to 50 years, with one or more close blood relatives with pancreatic cancer primary diagnosed at any age
 - f. Diagnosed at age 46 to 50 years, with one or more close blood relatives with prostate cancer diagnosed at any age





- g. Diagnosed at age 46 to 50 years, with unknown or limited family history
- h. Diagnosed at age 60 years or younger, with triple-negative breast cancer
- 2. First-degree or second-degree relative with breast cancer diagnosed at any age, who in turn has one or more of the following:
 - a. One additional breast cancer primary (bilateral, or clearly separate ipsilateral diagnosed synchronously or asynchronously) diagnosed at any age and one or more close blood relatives with breast cancer diagnosed at any age
 - b. One or more close blood relatives with breast cancer diagnosed at age 50 years or younger
 - c. One or more close blood relatives with ovarian cancer diagnosed at any age
 - d. One or more close male blood relatives with breast cancer diagnosed at any age
 - e. One or more close blood relatives with metastatic prostate cancer, intraductal/cribriform prostate cancer, or high-risk to very high-risk prostate cancer diagnosed at any age
 - f. One or more close blood relatives with pancreatic cancer diagnosed at any age
 - g. Three or more total breast cancer primaries diagnosed at any age
 - h. Three or more total breast cancer primaries diagnosed in close blood relatives at any age
- 3. First-degree or second-degree male relative with breast cancer diagnosed at any age
- 4. First-degree or second-degree relative with breast cancer who is of ethnicity associated with deleterious mutations (eg, Dutch, Hungarian, Icelandic, Mexican, Swedish)
- 5. First-degree or second-degree relative with exocrine pancreatic cancer diagnosed at any age
- 6. First-degree or second-degree relative with exocrine pancreatic cancer diagnosed at any age
- 7. First-degree or second-degree relative with metastatic prostate cancer (biopsy-proven and/or radiographic, with distant metastasis and regional bed or nodes), intraductal/cribriform prostate cancer, or high-risk to very high-risk prostate cancer diagnosed at any age
- 8. First-degree or second-degree relative with ovarian cancer diagnosed at any age
- 9. First-degree or second-degree relative with prostate cancer diagnosed at any age, who in turn has one or more of the following:
 - a. Ethnicity associated with deleterious mutations (eg, Dutch, Hungarian, Icelandic, Mexican, Swedish)
 - b. One close blood relative with breast cancer diagnosed at any age and one close blood relative diagnosed with prostate cancer (any grade) at any age
 - c. One or more close blood relatives with breast cancer diagnosed at age 50 years or younger





- d. One or more close blood relatives with metastatic prostate cancer or intraductal/cribriform prostate cancer diagnosed at any age
- e. One or more close blood relatives with ovarian cancer diagnosed at any age
- f. One or more close blood relatives with pancreatic cancer diagnosed at any age
- g. Two or more close blood relatives with breast cancer diagnosed at any age
- h. Two or more close blood relatives with prostate cancer (ie, any grade) diagnosed at any age
- ii. Individual of Ashkenazi Jewish ancestry, with one or more of the following:
 - 1. One or more first-degree relatives with breast cancer or epithelial ovarian cancer
 - 2. Two or more second-degree relatives, on same side of family, with breast cancer or epithelial ovarian cancer
- iii. Male relative with breast cancer
- iv. Untested first-degree relative of BRCA1 or BRCA2 mutation carrier
- c. Patient has diagnosis of, or has first-degree relative with, one or more of the following:
 - i. Bannayan-Riley-Ruvalcaba syndrome
 - ii. Cowden syndrome
 - iii. Hereditary diffuse gastric cancer with CDH1 mutation
 - iv. Li-Fraumeni syndrome
 - v. Peutz-Jeghers syndrome
- d. Personal history of radiation to chest between age 10 and 30 years
- e. For women who have a 20% or greater lifetime risk of breast cancer (according to risk assessment tools based on family history such as the Gail model, the Claus model, and the Tyrer-Cuzick model)
- IV. Occult breast cancer, suspected (eg, unknown primary), as indicated by ALL of the following:
 - a. Diagnosis of adenocarcinoma or carcinoma not otherwise specified in one or more of the following:
 - i. Ascites
 - ii. Axillary lymph nodes
 - iii. Bone
 - iv. Brain
 - v. Chest nodules
 - vi. Liver
 - vii. Mediastinum
 - viii. Peritoneum
 - ix. Pleural effusion
 - x. Retroperitoneal mass
 - xi. Supraclavicular lymph nodes
 - b. Mammogram and breast ultrasound show no evidence of cancer.
 - c. No palpable breast mass suitable for biopsy





- V. For guidance of interventional procedures such as vacuum assisted biopsy and preoperative wire localization for lesions that are occult on mammography or sonography and are demonstrable only with MRI
- VI. Repeat evaluation of specific area or structure with same imaging modality, as indicated by 1 or more of the following:
 - a. Change in clinical status (e.g., worsening symptoms or new associated symptoms)
 - b. Need for interval reassessment that may impact treatment plan
 - c. Need for re-imaging either prior to or after performance of invasive procedure

TRICARE Policy Manual Chapter 5, Section 1.1

4.2 Breast MRI (CPT procedure codes 77058 and 77059) is covered for the following indications. This list of indications is not all inclusive. Other indications may be covered when determined by the contractor to be medically necessary and appropriate:

4.2.1 To detect breast implant rupture (the implantation of the breast implants must have been covered by TRICARE).

4.2.2 For detection of occult breast cancer in the setting of axillary nodal adenocarcinoma with negative physical exam and negative mammography.

4.2.3 For presurgical planning for locally advanced breast cancer before and after completion of neoadjuvant chemotherapy, to permit tumor localization and characterization.

4.2.4 For presurgical planning to evaluate the presence of multicentric disease in patients with localized or locally advanced breast cancer who are candidates for breast conservation treatment.

4.2.5 Evaluation of suspected cancer recurrence.

4.2.6 To determine the presence of pectoralis major muscle/chest wall invasion in patients with posteriorly located tumor.

4.2.7 For guidance of interventional procedures such as vacuum assisted biopsy and preoperative wire localization for lesions that are occult on mammography or sonography and are demonstrable only with MRI.

5.0 EXCLUSIONS

5.3 MRIs (CPT procedure codes 77058 and 77059) to screen for breast cancer in asymptomatic women considered to be at low or average risk of developing breast cancer; for diagnosis of suspicious lesions to avoid biopsy, to evaluate response to neoadjuvant chemotherapy, to differentiate cysts from solid lesions.

5.4 MRIs (CPT procedure codes 76058 and 77059) to assess implant integrity or confirm implant rupture, if implants were not originally covered or coverable.

5.14 Computer-Aided Detection with breast MRI is unproven.

TRICARE Policy Manual Chapter 7, Section 2.1





1.1.1.1.4 Breast Magnetic Resonance Imaging (MRI)

1.1.1.1.4.1 Breast MRI is covered annually, in addition to the annual screening mammogram, beginning at age 30 and at age 35 for services rendered prior to September 7, 2010, for women who have a 20% or greater lifetime risk of breast cancer (according to risk assessment tools based on family history such as the Gail model, the Claus model, and the Tyrer-Cuzick model), or who have any of the following risk factors:

1.1.1.1.4.1.1 Known BRCA1 or BRCA2 gene mutation;

1.1.1.1.4.1.2 First-degree relative (parent, child, sibling) with a BRCA1 or BRCA2 gene mutation, and have not had genetic testing themselves;

1.1.1.1.4.1.3 Radiation therapy to the chest between the ages of 10 and 30; or

1.1.1.1.4.1.4 History of LiFraumeni, Cowden, or Bannayan-Riley-Ruvalcaba syndrome, or first-degree relative with a history of one of these syndromes.

Note: The risk factors identified above for a breast cancer screening MRI are those established by the American Cancer Society.

Coding information

77046	Magnetic resonance imaging, breast, without contrast material; unilateral
77047	Magnetic resonance imaging, breast, without contrast material; bilateral
77048	Magnetic resonance imaging, breast, without and with contrast material(s), including computer-aided detection (CAD real-time lesion detection, characterization and
	pharmacokinetic analysis), when performed; unilateral
77049	Magnetic resonance imaging, breast, without and with contrast material(s), including computer-aided detection (CAD real-time lesion detection, characterization and pharmacokinetic analysis), when performed; bilateral

References

- 1. TRICARE Policy Manual Chapter 5, Section 1.1 TRICARE Manuals Manual Information (health.mil)
- 2. TRICARE Policy Manual Chapter 7, Section 2.1 <u>TRICARE Manuals Manual Information (health.mil)</u>
- 3. MCG Health. Breast MRI. Ambulatory Care. 28th edition. ACG: A-0048 (AC) Last reviewed: 3/14/2024

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October 2024: Updated references

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Approved by:

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