Medical Imaging Standard Operating Guidelines

UW Health

Title: Mammography Indications and Views

Original Author(s): Berta Strigel, Lonie Salkowski, Pam Propeck, Mai Elezaby, Beth Burnside

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Revision Author(s): Wendy DeMartini, Katie Jungers

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Revision Author(s): Berta Strigel, Pete Chase

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Committee (if different than authors):

Approvals:

Discipline/Group	Approval Date & Signature	Implementation Date & Signature
Medical Imaging Director		
Breast Imaging UWHC (DeMartini/Jungers/Walker)		

Goal: To describe the standardized indications and views for mammography. These standardized views will be performed by the technologists and presented to radiologists for each case. Additional views may be added at the discretion of the technologists (for adequate standard coverage of the breast(s)) and the radiologists as needed.

The Standard Operating Guidelines (SOGs) are meant as a framework for the best practices in the care of our patients to standardize and coordinate care across locations. They are guidelines and can be modified, if necessary, in individual situations based on the clinical judgment of the radiologist, if it is determined to be in the best interest of the patient.

Standardized use of radiopaque markers:

- Site(s) of clinical concern: BB marker(s)
- Skin lesion(s): Skin lesion marker(s)
- Excisional biopsy or lumpectomy scar(s)/incision(s): Scar marker(s)
- Markers should be used for 2D and Digital Breast Tomosynthesis (DBT) images

Mammography

Screening Mammography (Asymptomatic patients):

- Bilateral CC and MLO
  1. 2D only

  OR
  2. DBT plus synthesized mammography (C-view)
- Include implant displaced views (CCID, MLOID) if patient has implants
- IF DBT:
  1. Additional views to complete standard breast coverage (exaggerated lateral or medial, axillary tail, cleavage views, etc.) should be 2D (not DBT)

2. Implant in-field and implant displaced views (CCID, MLOID) should be DBT plus synthesized mammography (C-view)

Diagnostic Mammography (Symptomatic patients):
Note: These patients should be able to stay for same-day ultrasound when warranted

a) New palpable mass/focal pain
    a. Age < 30y
        i. Ultrasound first
    b. Age ≥ 30y: BB on location indicated by patient or physician
        i. < 6mo since last mammo: spot CC, spot MLO, ML
        ii. ≥ 6mo since last mammo: CC, MLO, ML, spot CC, spot MLO
        iii. Additional views to complete standard breast coverage (exaggerated, axillary tail, cleavage)
        iv. Followed by ultrasound unless entirely fatty
b) New suspicious nipple discharge (defined as unilateral spontaneous discharge that is bloody or serous)
    a. Age < 30y
        i. Ultrasound
    b. Age ≥ 30y
        i. < 6mo since last mammo: retroareolar spot CC, retroareolar spot MLO, ML
        ii. ≥ 6mo since last mammo: CC, MLO, ML, retroareolar spot CC, retroareolar spot MLO
        iii. Additional views to complete standard breast coverage (exaggerated, axillary tail, cleavage)
        iv. Followed by ultrasound

Diagnostic Mammography (Call-Backs from Screening BI-RADS 0):

a) Calcifications
    a. ML, Mag CC, Mag ML (mags are 1.8 as standard)
b) Masses/Focal asymmetries/Architectural distortion on **2** views
    a. ML, spot CC, spot MLO
        i. Rolled lateral CC, rolled medial CC as needed
        ii. Possible ultrasound to follow
c) Masses/Asymmetries/Architectural distortion on **1** view only
    a. CC only
        i. Rolled lateral CC, rolled medial CC, ML, spot CC
    b. MLO only
        i. Rolled lateral CC, rolled medial CC, ML, spot MLO

Diagnostic Mammography (BI-RADS 3 – Follow-up: Unilateral at 6 mo, bilateral at 12 and 24 mo – the 12 and 24 mo DxM could revert to screening if follow-up imaging confirms a benign finding)

a) Calcifications
    a. CC, MLO, ML, Mag CC, Mag ML
    b. Additional views to complete standard breast coverage (exaggerated, axillary tail, cleavage)
b) Masses/Focal asymmetries
    a. CC, MLO, ML, spot CC, spot MLO
    b. Additional views to complete standard breast coverage (exaggerated, axillary tail, cleavage)

Diagnostic Mammography (Post benign core needle/surgical excisional biopsy):
Note: The need for follow-up imaging is determined at the time of concordance determination and is assessed on a case-by-case basis

a) Calcifications
    a. CC, MLO, ML, Mag CC, Mag ML
    b. Additional views to complete standard breast coverage (exaggerated, axillary tail, cleavage)
b) Masses/Focal asymmetries
    a. CC, MLO, ML, spot CC, spot MLO
    b. Additional views to complete standard breast coverage (exaggerated, axillary tail, cleavage)

Diagnostic Mammography (Post-lumpectomy): First follow-up post-lumpectomy (6 – 12 mo), then routine mammography:

a) Scar marker on lumpectomy scar
b) Post-lumpectomy, pre-radiation mammogram to evaluate residual calcifications, etc. is determined on a case-by-case basis by radiation oncologist and is not routine
c) CC, MLO, Mag CC, Mag ML of lumpectomy site at first post-lumpectomy imaging
d) Otherwise, routine CC, MLO
e) Additional views to complete standard breast coverage (exaggerated, axillary tail, cleavage)

Mastectomy:

a) Contralateral CC, MLO for screening
b) Additional views to complete standard breast coverage (exaggerated, axillary tail, cleavage)
c) No mammogram on mastectomy side unless subcutaneous, nipple-sparing mastectomy and specifically requested by clinician
    a. CC, MLO

Male Patients:

a) BB on lump/site of clinical concern if present
b) Bilateral CC, MLO
c) May be a considered a screening mammogram if patient is asymptomatic and a known breast cancer survivor or specific high-risk profile. There are no ACR guidelines for male breast screening in these populations, but screening can be performed at clinical discretion.

Pregnant Female with New Palpable Lump:

a) Ultrasound
b) Mammography only if needed per radiologist discretion with standard views for palpable lump (as above) and shielding for the abdomen

Lactating Female:

a) Pump or breastfeed prior to imaging if possible
b) Standard work-up as above based on age and indication for the exam

Transgender Screening (if indicated, same views as standard screening mammography), indications (AJR 2014; 202:1149-1151):

a) Transgender Women

- ≥ 50 years old with past or current hormone use: Annual screening mammography if the patient has additional risk factors such as estrogen and progestin use for > 5 years, body mass index > 35, and family history
- No hormone use: Routine screening mammography is not indicated unless the patient has other known risk factors, e.g., Klinefelter syndrome

b) Transgender Men

- Underwent reduction mammoplasty or no chest surgery: Standard guidelines for screening mammography in women
- Post-bilateral mastectomy: No imaging

POST PROCEDURE IMAGING:

- After any procedure where a clip was placed, a CC and ML view of the affected side is obtained.
- After clips are placed in the axillary lymph nodes, a single view over the axilla to document clip placement and location.
- If there is a cyst aspiration with a mass evident on mammography and the cyst resolves on aspiration, a CC and ML view of the affected side may be obtained.
- If the cyst aspiration is for therapeutic reasons (ie. pain), then no post mammogram is necessary
- If the patient is <30y, and a biopsy is performed with a marker being placed no mammogram is needed following the procedure for one of two reasons:
    1. She had no mammogram in the initial work-up

2. The marker is clearly seen at the time of ultrasound placement

Notes:

1. The overall goal of a breast imaging work-up is to come to a definitive diagnosis in a timely and accurate manner, striving to uphold a standard of clear communication with minimal ambiguity at all phases of diagnosis. These principles are best achieved when the full work-up is done by a single radiologist in one visit, if possible.
2. If the full work-up cannot be achieved in one visit, clear management recommendations based on contingencies of future imaging is important for clear communication and timely patient care. This should be a rare exception to our standard practice.