### EPA1c-BR Worksheet

| Title                                                                 | Identifying and managing abnormalities on screening examinations  
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<tbody>
<tr>
<td>Description of Activity</td>
<td>A radiologist involved in breast imaging must be able to identify abnormalities on screening examinations and determine the next steps in patient management.</td>
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The key function which define this EPA in regards to all breast examinations include:

- Lists indications for breast MRI\(^{A,2,8}\)
- Understand technique, patient positioning, standard imaging views and study protocol\(^{1}\)
- Differentiate technically adequate and inadequate studies\(^{1}\)
- Differentiate benign findings from those that warrant additional work-up\(^{D,E,F,3,4,5}\)
- Identify imaging artifacts and explain methods for correction\(^{6}\)
- Identify the normal and abnormal appearance of the breast after surgical procedures (reduction, augmentation, implants, breast conserving therapy, or mastectomy)\(^{E,F}\)
- Demonstrate the correct use of the BI-RADS lexicon terminology pertinent to the examination including assessment/management categories\(^{A,7}\)
- Report and communicate results with the patient, referring physician (including primary physician, oncologist, surgeon), and staff when indicated\(^{G}\)

The key functions in regards to screening breast MRI include:

- Protocol breast MRI exams for technique (e.g. use of contrast)\(^{1,2}\)
- Differentiate benign from suspicious abnormalities on breast MRI including masses, non-mass enhancement, postoperative findings, and lymph nodes\(^{D,E,F,3,5,8}\)
- Correlate MRI findings with recent mammogram and ultrasound to determine which abnormalities require biopsy, follow up, or additional imaging\(^{3,4}\)
- Identify imaging artifacts and explain methods for correction\(^{6}\)

Superscript indicate resources below which address the key function

**Context:** Outpatient imaging center

**Targeted transition point:**
Depending on the institution - First month for screening mammography, second month for ultrasound, third month for MRI. Items marked * may be more suitable for by month 3 of mini-fellowship or fellowship for some programs

This is from:  
**Breast Radiology Entrustable Activity Supervision Tool**  
Monica Sheth, MD; S; Ryan Woods, MD; Katherine Klein, MD Priscilla Slanetz, MD; Alice Fornari, EdD; Petra Lewis, MBBS, 2019
| Mapping to Domains of Competence | PC1: Reporting  
| Competencies within each domain critical to entrustment decisions | PC2: Clinical Consultation  
| | PC3: Image Interpretation  
| | MK1: Diagnostic Knowledge  
| | MK2: Physics  
| | MK3: Protocol Selection and Contrast Agent Selection/Dosing  
| | MK4: Imaging Technology and Image Acquisition  
| | SBP1: Patient Safety  
| | SBP5: Contrast Agent Safety  
| | SBP7: Magnetic Resonance (MR) Safety  
| | SBP8: Informatics  
| | PBLI1: Evidence-Based and Informed Practice  
| | PBLI2: Reflective Practice and Commitment to Professional Growth  
| | P2: Accountability/Conscientiousness  
| | ICS1: Patient- and Family-Centered Communication  
| | ICS2: Interprofessional and Team Communication  
| | ICS3: Communication with Health Care Systems  
| Suggested Resources | A. A Pictorial Review of Changes in BI-RADS 5th Edition (A)  
| | B. Update on Imaging of the Postsurgical Breast (A)  
| | C. American Joint Committee on Cancer's Staging System for Breast Cancer, Eighth Edition: What the Radiologist Needs to Know (A)  
| | D. Hormonal Effects on Breast Density, Fibroglandular Tissue, and Background Parenchymal Enhancement (A)  
| | E. Imaging of Breast Implant-associated Complications and Pathologic Conditions: Breast Imaging (A)  
| | F. Breast Reconstruction: Review of Surgical Methods and Spectrum of Imaging Findings (A)  
| | G. Maximizing Value Through Innovations in Radiologist-Driven Communications in Breast Imaging (A)  
| | H. Training and Standards for Performance, Interpretation, and Structured Reporting for Supplemental Breast Cancer Screening (A)  
| | I. Imaging the Axilla Widget (W)  
| MRI 1. Positioning in Breast MR Imaging to Optimize Image Quality (A)  
| | 2. ACR Practice Guideline for Breast MRI (A)  
| | 3. Breast MR Imaging for Equivocal Mammographic Findings: Help or Hindrance? (A)  
| | 4. Second-Look US: How to Find Breast Lesions with a Suspicious MR Imaging Appearance (A)  
| | 5. MR Imaging Assessment of the Breast after Breast Conservation Therapy: Distinguishing Benign from Malignant Lesions (A)  
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<tr>
<th>Required knowledge, skills, attitude and behavior, and experience</th>
<th>Knowledge</th>
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<tbody>
<tr>
<td>Knowledge of imaging abnormalities on MRI.</td>
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<tr>
<td>Knowledge of correct BI-RADS terminology to describe imaging findings.</td>
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<tr>
<td>Knowledge of markers of image quality.</td>
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<tr>
<td>Skills</td>
<td>Skill in identifying abnormalities on breast screening exams.</td>
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<tr>
<td>Skill in discussing results of imaging exams with patients, referring physicians, and staff</td>
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<tr>
<td>Attitude and Behavior</td>
<td>Professional communication of screening exam results with patients, referring physicians, and staff</td>
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<tr>
<td>Experience</td>
<td>Screening MRI: 20-50 screening MRIs</td>
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<tr>
<th>Assessment Information sources to assess progress and ground summative entrustment decision</th>
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<tbody>
<tr>
<td>Knowledge Assessment: In process of creation</td>
</tr>
<tr>
<td>Review of interpretation of screening MRI</td>
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<tr>
<td>5-10 informal Case-based discussions per modality with attending radiologist</td>
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<th>Entrustment level of supervision to be reached at which stage of training</th>
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<tr>
<td>Residents: Indirect supervision (level 3) prior to graduation - ability to identify at least 50% of the abnormalities identified by the attending radiologist</td>
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<tr>
<td>Mini-fellows: Distant supervision (level 4) prior to graduation - ability to identify 50-75% of the abnormalities identified by the attending radiologist</td>
</tr>
<tr>
<td>Fellows: Trust to perform unsupervised (level 5) or to supervise others (level 6) prior to graduation (ability to identify 75-100% of abnormalities identified by the attending radiologist and ability to teach concepts to residents)</td>
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| Expiration | 1 year after graduation |

*Modified from the work of Olle ten Cate