EPA1c-BR Worksheet

Title	Identifying and managing abnormalities on screening examinations - EPA1c: MRI
Description of Activity	A radiologist involved in breast imaging must be able to identify abnormalities on screening examinations and determine the next steps in patient management. 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 **R**adiology **E**ntrustable **A**ctivity **S**upervision **T**ool

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	X Patient Care X Medical Knowledge X Systems-Based Practice X Practice-Based Learning and Improvement X Professionalism X Interpersonal and Communication Skills
Competencies within each domain critical to entrustment decisions	PC1: Reporting 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: Evidenced-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) Article
(B) Book Chapter
(D) Document
(S) Slides
(W) Widget - interactive powerpoint
(V) Video
	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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	6. [Recognizing Artifacts and Optimizing Breast MRI at 1.5 and 3T](#) (A) 7. [Auditing a Breast MRI Practice: Performance Measures for Screening and Diagnostic Breast MRI](#) (A) 8. [MRI of the Breast and Emerging Technologies](#) (A)
Required knowledge, skills, attitude and behavior, and experience	Knowledge ● Knowledge of imaging abnormalities on MRI. ● Knowledge of correct BI-RADS terminology to describe imaging findings. ● Knowledge of markers of image quality. Skills ● Skill in identifying abnormalities on breast screening exams. ● Skill in discussing results of imaging exams with patients, referring physicians, and staff Attitude and Behavior ● Professional communication of screening exam results with patients, referring physicians, and staff. Experience ● Screening MRI: 20-50 screening MRIs
Assessment Information sources to assess progress and ground summative entrustment decision	Knowledge Assessment: In process of creation Review of interpretation of screening MRI 5-10 informal Case-based discussions per modality with attending radiologist
Entrustment level of supervision to be reached at which stage of training	*Imaging studies should always be overread by an attending physician Residents: Indirect supervision (level 3) prior to graduation - ability to identify at least 50% of the abnormalities identified by the attending radiologist Mini-fellows: Distant supervision (level 4) prior to graduation - ability to identify 50-75% of the abnormalities identified by the attending radiologist 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)
Expiration	1 year after graduation

*Modified from the work of Olle ten Cate