The American College of Radiology Breast MRI Accreditation Program: Frequently Asked Questions
(Updated: July 31, 2017)

To navigate in this document, either click a section in the Table of Contents or hit “Ctrl+F” and type a key word in the box.

Table of Contents

Application – General.................................................................................................................................................. 1
Application – Breast MRI.......................................................................................................................................... 4
Equipment .................................................................................................................................................................... 5
Personnel ..................................................................................................................................................................... 6
Accreditation Testing................................................................................................................................................... 10
Quality Assurance and Quality Control ..................................................................................................................... 15
Breast Imaging Centers of Excellence .......................................................................................................................... 17

Application – General

(Also see General Accreditation Frequently Asked Questions for additional questions.)

Q. I have questions about my facility’s accreditation. Where can I go for help?

A. Visit http://www.acraccreditation.org/ today! With just a click of the mouse you have 24/7, user-friendly access to the complete array of the ACR’s highly respected accreditation programs, from easy-to-use applications, testing and quality control forms for each modality, to a list of the most frequently asked questions. If our on-line information does not address your specific question, please call the Breast Imaging Accreditation Programs at (800) 227-6440. Our phone lines are open business days from 8:30 AM – 5PM eastern time.

Q. How long does the accreditation process take?

A. If you submit all of the requested information within ACR deadlines, the process typically takes 4 to 6 months.

Q. Do facilities undergo a site survey as part of the accreditation process?

A. Not at this time. However, all accredited facilities subject to the Medicare Improvements for Patients and Providers Act (MIPPA), must participate in unannounced validation surveys conducted by their accrediting organization and/or the Centers for Medicare and Medicaid Services (CMS).

Q. Will the ACR allow the same equipment at the same address that is leased to multiple facilities to have one accreditation or must each facility that leases the equipment submit its own accreditation?

A. It depends on the common elements of the facility. Under ACR accreditation policies, an accredited facility encompasses the staff, equipment, protocols, policies and procedures and physical location. In other words, all elements of the “practice” are considered. Any changes in even one major element could affect accreditation of the “facility”. ACR’s primary concern is that when patients
receive imaging at an ACR accredited facility, all aspects are in fact accredited. In situations where several businesses operate out of the same location, but have different staff, protocols etc., we must evaluate each business separately. If staff, protocols, policies and procedures, and physical location are the same, a single accreditation application is appropriate.

Q. Our facility is currently accredited by the ACR. How will we be notified that it is time to renew? When will this occur?

A. In order to provide timely service, the ACR will notify you by email when it is time to renew your accreditation. It is important that your facility activate its online accreditation account to receive these email notifications. Once this is completed the ACR will email your Modality-Specific Supervising Physician a renewal notification approximately 8 months prior to your ACR accreditation certificate expiration. If you do not hear from us, please call our office so we may follow up on this for you.

Q. Will the ACR accept faxed signatures for the application?

A. Yes, the ACR does accept faxed signatures. These will be treated as legally binding.

Q. Will the ACR accept electronic or digital signatures for accreditation applications?

A. Yes, the ACR does accept electronic or digital signatures. These will be treated as legally binding.

Q. How long do I have to submit Initial or Renewal testing materials to the ACR?

A. You have 45 calendar days from the date the testing materials are sent to complete and return them to the ACR. (The due date is printed on the labels.) If you have problems meeting this deadline, call the Breast Imaging Accreditation Programs at (800) 227-6440 for help.

Q. We are close to the testing material deadline and have not been able to find appropriate images to submit. May we have an extension to this deadline?

A. Please call the Breast Imaging Accreditation Programs at (800) 227-6440 for questions and guidance.

Q. We submitted our testing materials 3 weeks ago. When will we get our results?

A. The accreditation review process takes approximately 90 days from the time the ACR receives all of the required testing materials. You should receive your results soon after that.

Q. Can the ACR provide my assistant with our accreditation results over the phone or by fax?

A. No. Because the ACR Accreditation Programs are peer-review processes, the information we receive or develop during accreditation is considered privileged and confidential. The ACR will email your modality-specific supervising physician when your results are available for review.

Q. Do we have to repeat the entire accreditation process if we do not pass on our first attempt?

A. No. You will not have to redo the entire process; you only have to undergo the process again in those areas found to be deficient. However, if a site receives a second deficiency, it then fails accreditation. To resume the process, a facility must reinstate with a corrective action plan and retest all areas again.
Q. My facility did not pass accreditation. May we appeal the decision? If so, what’s involved?

A. Yes. Facilities that receive a deficiency or a failure may appeal the determination in writing within 15 days of the date of the final report. You must send the original images for all of the submitted cases in the category that did not pass along with a letter describing your reason for appealing. These will be forwarded to an arbitrator (a reviewer who did not participate in the initial review) with a copy of the previous reviews and the appeal letter written by the facility. The arbitrator’s determination will be final.

Please note that your accreditation submission contains HIPAA data, so we strongly recommend that you send your submission via traceable method with a signature required for delivery.

Q. We recently appealed an adverse accreditation decision. When should we receive the results of the appeal?

A. You should receive the appeal results within 30 to 45 days of the date all required appeal materials were received by the ACR.

Q. We did not pass accreditation on our first attempt. The ACR reviewers pointed out that there may be performance problems associated with the equipment or our choice of protocol. What should we do?

A. You should contact your medical physicist/MR scientist for assistance. When ACR reviewers report image quality problems on cases submitted for accreditation, it is not always possible to exactly identify the cause of the deficiencies. Reviewers will provide “possible” causes to help direct the facility in correcting the problem. Your medical physicist/MR scientist can be invaluable in helping you identify and eliminate problems that are technical in nature by reviewing your protocols and/or conducting focused tests on the equipment.

Q. We did not pass accreditation because we did not submit all required images and provided insufficient information with the images that were submitted. May we appeal the decision and submit the rest of the required information?

A. Possibly. Please call the Breast Imaging Accreditation Programs at (800) 227-6440 for further guidance on your specific situation.

Q. How does a facility remove, add or replace a breast MRI unit to their existing accreditation?

A. Facilities must use the online application process to permanently withdraw a unit used for breast MRI from service, replace that unit with a new one, or start performing breast MRI on another unit. The type of accreditation available for a new unit will depend on the amount of time the facility has left on its current accreditation certificate:

- When more than 13 months remain, the facility will only need to submit unit information and additional testing materials. Once the new unit passes accreditation, its expiration date will be the same as the previous expiration date.

- When less than 13 months are left, the facility must renew accreditation for all units at the facility, including the new one. Once approved, all of the units will have an expiration date that is 3 years from the old expiration date.

Please contact the Breast Imaging Accreditation Programs at (800) 227-6440 for further information.
Application – Breast MRI

Q. Is Breast MRI Accreditation available through the ACR’s online application?

A. Yes, the online system became available October 10, 2011. It is available at http://www.acraccreditation.org/Modalities/Breast-MRI.

Q. May we apply for Breast MRI accreditation as a module under the general MRI Accreditation Program?

A. No, the Breast MRI Accreditation Program is a stand-alone program and not a module under the general MRI Accreditation Program. You must apply for accreditation in breast MRI separately. However, if you have applied for general MRI accreditation with the magnet you use for breast MRI, you are eligible for a discount on the Breast MRI Accreditation Program.

Q. We are applying for CT and MRI accreditation and want to apply for Breast MRI at the same time so we can get the 10% multi-modality discount. How do we do this?

A. Apply online. The system will automatically calculate your fee to include the discount.

Q. Why is a separate accreditation program needed specifically for Breast MRI?

A. A growing number of facilities performing breast MRI do so on dedicated magnets. They are not able to apply for the general ACR MRI Accreditation Program since they would not be able to submit the required exams for review. In addition, there are unique quality components to a breast MRI exam that are critical to a high quality exam and diagnosis. These are evaluated by the Breast MRI Accreditation Program.

Q. What facilities should apply for Breast MRI Accreditation? Outpatient? Hospitals?

A. ACR encourages any facility performing breast MRI to apply for Breast MRI Accreditation. However, it is critical to note that effective January 1, 2012, all providers that bill for CT, PET, nuclear medicine and MRI (including breast MRI) under the technical component of part B of the Medicare Physician Fee Schedule must be accredited in order to receive technical component reimbursement from Medicare. Facilities should apply no later than July 1, 2011 in order to be accredited by the deadline of January 1, 2012. Unlike the provisional status for mammography under MQSA, CMS will not reimburse for breast MRI if a site is not fully accredited.

Q. My out-patient facility is already accredited by the ACR in MRI. Are we also required to be accredited in Breast MRI in order to be reimbursed by CMS for breast MRI exams?

A. Yes. The Medicare Improvements for Patients and Providers Act of 2008 (MIPPA) requires accreditation for CT, MR, Nuclear Medicine and PET. Breast MRI is included since it is an MRI examination. In addition, the CMS final rule on MIPPA implementation states:

“We did not propose any substantive standards that suppliers furnishing the TC of advanced imaging would have to meet. We have chosen to utilize clinical guidelines that are already accepted by the experienced accreditation organizations already performing accreditation.”

The above statement means that CMS has accepted and approved both the ACR’s MRI Accreditation Program and the Breast MRI Accreditation Program requirements. Consequently, if you choose to accredit with the ACR, your facility is required to accredit in the two separate programs (if you perform both general MRI and MRI of the breast).
Reimbursement works as follows: Once you are accredited with the ACR in either MRI, Breast MRI or both, the ACR will submit a modality code (along with other required information) to CMS. In this case, the code will be one for “MRI;” it is not specific for breast MRI. However, you should keep in mind that the ACR is required by CMS to conduct on-site Validation Surveys. One of the functions of the ACR surveyor is to determine that all equipment at the facility is accredited in all the modalities and submodalities performed with the unit. If the surveyor discovers that breast MRI is performed with a unit accredited in general MRI, but the unit is not accredited in breast MRI, the ACR may revoke the facility’s MRI accreditation. If accreditation is revoked, you will not be reimbursed by CMS.

Q. We are an outpatient facility that performs breast MRI. However, we do not accept CMS patients. Are we required by MIPPA to become accredited in breast MRI?

A. No. The MIPPA regulations for accreditation only applies to facilities that bill CMS for procedures. (See above.)

Q. In the online application, we are asked to provide the “average number of Breast Magnetic Resonance Imaging examinations performed at this facility location per year.” We have been open for less than a year. What information should I provide?

A. If you are a new facility, submit all the patient volume and outcome data you have available.

Q. I am unfamiliar with some of the MRI terminology in the application and testing instructions. How can I get more help on these terms?

A. The ACR has a published a Glossary of MRI Terms on its website. This useful document explains over a hundred common terms used in MR imaging. You may also contact your medical physicist/MR scientist or your MR manufacturer’s representative for more information on your unit’s terminology.

**Equipment**

Q. Why is there a requirement that facilities accredited in breast MRI have MRI biopsy capabilities or an off-site arrangement for such?

A. The ACR Committee on Breast MRI Accreditation wants to ensure that women who have a suspicious finding under breast MRI are able to get a biopsy based on the results of the examination that discovers the finding. There are two key underlying reasons for this:

- **Cost** - there have been frequent reports of patients who needed a biopsy as a result of a diagnostic breast MRI at one center and could not have the biopsy performed at that center. They were then forced to pay out of pocket for a repeat breast MRI at another center that could perform their biopsy. This is because these centers are uncomfortable with the quality of exams performed at some facilities and do not feel that they can perform a biopsy safely without repeating the scan.

- **Patient safety** - a facility which does not have arrangements to schedule a biopsy could lead to patients foregoing needed biopsy because of inconvenience or cost, or because that facility might fail to recommend a biopsy based on their lack of equipment.

Q. Our breast MRI facility has a referral arrangement with another facility to provide MR biopsy services. Does this facility have to be accredited by the ACR?

A. No. Although the ACR no longer requires that the facility performing your patients’ MR-guided biopsies be accredited by the ACR in breast MRI, we strongly recommend it.
Q. Is the breast MRI facility required to have a contractual arrangement with facility to perform “mammographic correlation, directed breast ultrasound, and MRI-guided intervention” if the breast MRI facility does not provide these services?

A. No. The nature of the referral arrangement (whether it is contractual or less formal) is left to the discretion of the applicant facility.

Q. Currently, we perform our breast biopsies on the MRI unit located within the hospital’s breast care center. Here we have code team response and surgical support should the biopsy prompt a severe bleed. Our routine breast MR exams are performed on a different unit due to the availability of specialized pulse sequences. The same organization owns both units and the same physicians and technologists involved with the diagnostic procedures perform the biopsies. Is it possible to obtain accreditation for both units...one for biopsy and one for diagnostic?

A. No. The ACR does not accredit breast MRI units specifically for breast biopsies. If you perform all breast imaging on one MRI unit and perform all breast biopsies on a different unit, the MRI unit that is used to perform breast biopsies is NOT required to undergo breast MRI accreditation. You only need to apply for accreditation of the unit used for diagnostic imaging.

Q. We perform our diagnostic breast MRI studies on a 3T unit but perform our interventional procedures on a 1.5T unit. Do we have to accredit both scanners?

A. No. If you perform all breast imaging on one MRI unit and perform all breast biopsies on a different unit, the MRI unit that is used to perform breast biopsies is NOT required to undergo breast MRI accreditation. You only need to apply for accreditation of the unit used for diagnostic imaging.

Personnel

Q. Is a fellowship in breast MRI required in order to meet the initial requirements?

A. No.

Q. If a physician has a fellowship in breast MRI, does it automatically mean the physician meets the initial requirements?

A. No, not automatically. However, if the fellowship provided for one of the following two experience levels, the physician would meet the requirements:

- Oversight, interpretation and reporting of 150 breast MRI examinations in the last 36 months, or
- Interpretation and reporting of 100 breast MRI examinations in the last 36 months in a supervised situation

Q. With regards to the initial requirements for interpreting physicians, what does “in a supervised situation” mean?

A. The Committee on Breast MRI Accreditation has defined “supervision” as follows:

“The supervising interpreting physician reviews, discusses, and confirms the diagnosis of the physician being supervised. The supervising interpreting physician does not have to be present at the time of initial interpretation. However, the supervising physician must review and, if necessary, correct the final interpretation. Supervision may also be accomplished through a formal course that includes a lecture format in addition to all of the following: 1) a database of previously performed and interpreted cases, 2) an assessment system traceable to the individual participant, and 3) direct
feedback regarding the responses. Examples of suitable assessment systems are an audience response system, a viewbox or monitor based program or an individual CD-ROM or web-based instruction system."

Q. If a facility double reads breast MRI exams, may the physician count the exams he/she double-reads towards his/her initial experience in meeting the Breast MRI Initial Qualifications for Breast MRI Accreditation?

A. Yes. If the practice double reads, both radiologists may "count" the exams they read, whether they read the exams together or independently.

Q. May our physicians double read in order to meet the continuing experience requirements of 75 breast MRI exams in the past 36 months?

A. Yes, double reading (2 or more physicians interpreting the same examination) is acceptable to meet the continuing experience requirements. (See the footnote on page 4 of the Breast MRI Accreditation Program Requirements). Interpreting physicians may also re-interpret a previously interpreted examination and count it towards meeting the continuing experience requirement, as long as he/she did not do the initial interpretation.

Q. How should physicians document the number of exams read if they double read?

A. A log should be kept for each physician interpreting breast MRI to document the double reads and that the physician meets the continuing experience requirements. Both names do not need to be on the patient's report.

Q. May our physicians document a bilateral breast exam as 2 exams for their initial and continuing experience?

A. No. As in mammography, a bilateral breast MRI exam of 1 patient is considered 1 examination.

Q. When a new breast MRI is interpreted, there will occasionally be several older breast MRI exams (that were interpreted by other physicians) available for comparison. May the interpreting physician count his review of these older exams towards his continuing experience requirement?

A. Yes.

Q. Our radiologists interpret breast MRI examinations for an outside facility that is not accredited. May they count these exams towards their initial and continuing experience?

A. Yes.

Q. May radiologists count biopsies performed under MRI guidance toward their initial experience and continuing experience numbers?

A. Yes. It involves interpreting the breast MRI images.

Q. One of the options for Continuing Education for interpreting physicians is that he/she “completes 15 hours CME (half of which must be in category 1) in the prior 36 months specific to the imaging modality or organ system.” Does this mean that all of the continuing education must be in breast MRI?
A. No. Continuing Education may be in MRI, breast, or a combination of MRI and breast. As examples, the following would meet the continuing education requirements for the Breast MRI Accreditation Program:

- 15 hours of CE in MRI (any body part...it could be brain, musculoskeletal or breast) - this is acceptable because MRI is the imaging modality
- 15 hours of CE in breast ultrasound - this is acceptable because the breast is the organ system
- 15 hours of CE in mammography - this is acceptable because the breast is the organ system
- 15 hours of CE in breast MRI - this is acceptable because it meets both the organ system condition and the modality condition

Q. Our Practice Site Supervising Physician just left. Do we need to designate a new one and report this to the ACR?

A. Yes. You should update the information for your new Practice Site Supervising Physician within your online account profile. Once you update this information, your new Practice Site Supervising Physician and your Practice Site Officer or Owner must read and sign the conditions for accreditation in the online Practice Site Accreditation Survey Agreement.

Q. One of the options in the ACR’s Breast MRI Accreditation Program Requirements for technologists states that he/she must have “6 months supervised clinical MRI scanning experience” (if not registered in MRI). Must this experience be in whole body MRI?

A. No, the requirements do not specify that the technologist’s clinical experience be in whole body MRI.

Q. Who can supervise the technologist’s 6 months clinical MRI scanning experience?

A. The supervision may be performed by a radiologist or technologist who is already qualified in breast MRI. The supervisor should be present to observe and correct, as needed, the performance of the individual being supervised who is performing the examination.

Q. What documentation is required for the technologist’s 6 months supervised experience?

A. Technologists should document their experience as they would for mammography under MQSA. Examples of appropriate documentation include

- Letter or other document from a training program
- Letter or other document confirming in-house or formal training

Q. If mammography technologists participate in breast MRI biopsy procedures on an accredited unit, do they need to meet the qualifications for the MRI technologists performing breast MRI?

A. No, as long as a qualified MRI technologist is performing the MRI exam during the biopsy.

Q. All of our MRI technologists perform breast MRI. We do not have sufficient volumes of breast imaging patients for all of our technologists to maintain the ACR-required continuing experience of 50 breast MRI examinations every 24 months. What can we do?

A. The continuing experience requirements were set by the members of the ACR’s Committee on Breast MRI Accreditation. They realize that there are low-workload facilities providing important services to their communities and have offered alternative ways to document that staff has adequate
experience. For technologists, if 2 persons participate in performing a breast MRI exam, both may count the exam towards their continuing experience.

**Q.** I have attended several breast conferences that included breast MRI lectures, but the CME certificate does not break out the specific number of hours pertaining to breast MRI. How do I document that I meet the initial requirements for CME?

**A.** If you have the syllabus or the schedule of the lectures for the meeting, you can attach it to the CME certificate. If you do not have this information, document how much time was spent on the subject and attach it to the CME certificate.

**Q.** In order to obtain continuing education credit for breast MRI, must the coursework be specifically designed for breast MRI?

**A.** No. Many general or breast continuing education activities include topics relevant to Breast MRI. The following are just a few examples:

- Breast imaging conferences that include discussion of breast MRI cases
- Breast tumor board meetings that include cases undergoing breast MRI guided biopsy
- Quality control seminars that include topics on MRI quality control
- Courses on the physics of MRI

You are responsible for documenting your own continuing education in breast MRI. This can be done by documenting how much time was spent on the breast MRI related subject and attaching a note to the syllabus or CME certificate.

**Q.** May I count time spent presenting courses/lectures and/or reading/writing articles/papers towards the continuing education requirements?

**A.** Personnel may possibly receive continuing education credit for presenting courses/lectures and/or reading/writing articles/papers for journals. These credits must be from organizations that can assess and document the appropriate amount and type of continuing education awarded for the individual article/paper or course/lecture and are authorized to award such credit. Personnel should get a letter or other documentation from the authorized organization stating how many and what type of continuing education credits are awarded and the date the credit was given.

Faculty may claim credit for teaching in programs designated for AMA PRA Category 1 Credit by applying directly to the AMA. Two AMA PRA Category 1 Credits™ are awarded for every hour of interaction, up to 10 credits per year. The application is available at www.ama-assn.org/go/cme in the Physician Applications section. You will need to download, complete and submit the Direct Credit Application to the AMA for credit. No credits are given for repeat presentations of the same material, it is the responsibility of the applicant to only claim the credit once, and credit may not be simultaneously earned as both a presenter and learner.

Additional information on obtaining continuing education credit for these activities is also available for medical physicists from CAMPEP at http://www.campep.org/Criteria.asp and for technologists from ASRT at https://www.asrt.org/content/CESponsors/ASRTInFocus/Fall_05.aspx#6.

**Q.** I am no longer qualified in breast MRI since I have not maintained my continuing experience. Is there a way I can requalify so that my facility can apply for accreditation with the ACR?

**A.** Yes, you may requalify as follows:
• Interpreting Physicians - interpret a sufficient number of breast MRI examinations in a supervised situation to bring the physician’s total up to 75 examinations for the prior 36 months
• Medical Physicists/MR Scientists - conduct a sufficient number surveys of MRI units under supervision to bring the medical physicist/MR scientist’s total up to 2 surveys for the prior 24 months
• Technologists - perform a sufficient number of breast MRI examinations under supervision to bring the technologist’s total up to 50 breast MRI procedures for the prior 24 months

Accreditation Testing

Q. The Testing Instructions specify that we must submit one case with a known, enhancing, biopsy-proven carcinoma. Must the biopsy have been performed under MR guidance or may it be performed via another imaging modality?

A. The biopsy may have been performed under guidance of any imaging modality. The biopsy does not have to be performed under MR-guidance.

Q. The Testing Instructions specify that we must submit one case with a known, enhancing, biopsy-proven carcinoma. Must the biopsy have been performed at our facility?

A. No, the biopsy does not have to be performed at the applicant’s facility. However, you should have a copy of the results so that you know the case was a biopsy-proven carcinoma.

Q. The Testing Instructions specify that the MRI of the carcinoma case must be performed prior to any surgery (excisional biopsy or lumpectomy). May we submit a case of a patient with a new cancer who has had an old lumpectomy or biopsy at a different location within the breast?

A. Yes, you may submit this case as long as it has a known, enhancing, biopsy-proven carcinoma clearly visible in the breast parenchyma.

Q. The Testing Instructions specify that the MRI of the carcinoma case be biopsy-proven. May the biopsy have been performed before the MRI?

A. It depends on how the biopsy was performed. Needle biopsies may have been conducted either before or after the MRI; excisional biopsies must have been conducted after the MRI.

Q. Should we send a pathology report with the cancer case?

A. No, do not submit a pathology report with the cancer case.

Q. May we submit a case from a patient with implants?

A. Yes, as long as the exam is bilateral and the implants are in place with the native breast tissue. Cases from patients who have implants for mastectomy reconstruction should not be submitted. Cases from patients reconstructed with TRAM, latissimus or other autologous tissue flaps (with or without implants) should not be submitted.

Q. Must a facility submit images in all 3 slice orientations/image acquisition planes (axial, sagittal & coronal)?

A. No. Specific image acquisition planes are left to the discretion of the facility.

Q. Should the lines be left on the scout/localizer that is submitted for accreditation review?
A. You should remove the lines from the scout/localizer images before submitting them to the ACR if possible. (However, you may submit them with the lines if you cannot remove them.)

Q. The Testing Instructions specify that, if possible, we only submit the 4 required sequences (T2-weighted/bright fluid, pre-contrast T1, early phase (first) post-contrast T1 and delayed phase (last) post-contrast T1). After consultation with our manufacturer, we have found that our system does not allow us to separate out these sequences without conducting special reconstructions. Will the ACR accept our cases if we include all the sequences performed?

A. Yes. Submitting all the sequences performed is preferable to providing reconstructions that may alter the signals between the pre- and post-contrast series.

Q. We routinely perform a STIR pulse sequence for breast MRI instead of an actual T2 sequence. Is this acceptable and may we submit this instead of the T2 sequence for accreditation?

A. Yes. If you routinely use a STIR (Short TI Inversion Recovery) image with TI set to suppress fat signal it may be submitted as a T2-weighted/bright fluid series if it successfully shows fluid to be bright.

Q. We do not do subtractions after dynamic runs on our 1.5T unit. Does the ACR require submission of subtracted images for Breast MRI accreditation?

A. No, the ACR does not require subtracted images for Breast MRI Accreditation. However, if chemical-shift (i.e., frequency-selective) fat suppression is not used or is not evident in the multiphase T1-weighted series, then subtraction of pre-contrast from post-contrast series may be used to eliminate the bright signal from fat. If this is done, then both the un-subtracted (source) series and the subtracted series (i.e., pre-contrast subtracted from post-contrast, slice by slice) must be submitted for both the early and delayed phases.

Q. We currently run an Ax T2 fat-sat instead of a routine Ax T2 for fluid. Is this an acceptable sequence to run? (I did not see any fat-sat sequences specifically listed in the ACR documentation.)

A. Yes, it is acceptable -- and desirable. The Breast MRI Accreditation Committee decided not to specify the type of pulse sequences required and leave the selection to the discretion of the imaging facility. For the T2W/bright fluid series, the ACR specifies that the sequence should demonstrate fluid as sufficiently bright to be considered a true bright fluid sequence. With a T2 fat-sat (or STIR) the fat is suppressed (i.e., becomes dark) and the bright fluid is much easier to see. Please review the Clinical Image Quality Guide for more information on the image characteristics evaluated by ACR reviewers for the T2W/bright fluid series.

Q. Our facility routinely does the T2W series after doing the multi-phase series. Will the presence of contrast agent affect the T2W images?

A. The ACR Committee on Breast MRI Accreditation has determined that contrast should generally not appear in a good quality T2-weighted bright fluid series. Also, the vast majority of exams performed at US facilities do T2W imaging before, rather than after, administration of the contrast agent.

The physics reason that you would not want to do T2W imaging after contrast administration is that the basis for bright fluid in T2W imaging is the longer T2 of fluid, cystic or vascular, compared to cellular tissue. Administering contrast agent shortens the T2 values of perfused fluids and tissues, particularly vessels, so contrast agent decreases the brighter T2W appearance of the vascular bed. It would not necessarily affect cysts. If there are no cysts in the breasts, the only way ACR reviewers
can evaluate the presence of bright fluid contrast in T2W images is to see bright vessels. The addition of contrast agent during T2W imaging is likely to decrease their visibility and could compromise bright fluid evaluation.

Please see the Clinical Image Quality Guide for more information on the ACR criteria for quality.

Q. Our system can provide effective/interpolated slice thicknesses. We use a GE MRI system for breast MRI and always use ZIP2 for our axial vibrant sequences. In the ACR's Clinical Test Image Data section, where it asks for slice thickness, should we provide the effective slice thickness as a result of ZIP2 (1.2 mm) or the actual acquired slice thickness (2.4 mm)?

A. Please record the actual acquired slice thickness (i.e., 2.4 mm) in the Test Image Data section. The ACR's slice thickness criteria apply to the acquired slice thicknesses and NOT the interpolated slice thicknesses. Since the effective slice thickness provided by ZIP2 is an interpolated value, do not record this on the section.

Q. Our protocol’s in-plane spatial size almost meets the requirements of ≤1 mm (it is 1.02 mm). Is exceeding this criterion by only 0.02 an automatic failure?

A. No, ACR reviewers will not automatically fail a case if the in-plane pixel size is >1.0 but ≤1.2 mm. However, if there are other image quality problems (i.e., poor positioning, significant artifacts, etc.), the combination of these additional problems with the in-plane pixel size deficiency may lead to failure.

Significant deviations from the in-plane pixel size requirements (i.e., >1.2 mm) would fail the case.

Q. Our current protocols do not meet the spatial resolution requirements (maximum in-plane pixel size in both phase-encoding and frequency-encoding directions must be ≤1 mm). May we revise our protocol just for the cases we submit for accreditation in order to meet this requirement?

A. This would not be wise. Although we ask you to select examples of your facility’s best work to submit for accreditation, we do expect that these examples are representative of the protocols your facility routinely use (and not only used once every 3 years for accreditation). Furthermore, your site’s owner or officer signed the Practice Site Accreditation Survey Agreement, agreeing to “ensures that all accreditation criteria are met and that the same standard of performance is maintained during the accreditation period for all diagnostic modalities accredited” when your facility applied for accreditation.

Q. How can we determine if the protocol we use for clinical breast MRI will meet the ACR accreditation requirements before we send in the case for accreditation review?

A. The purpose of ACR accreditation is to evaluate the quality of the work performed at your facility and provide educational feedback based on our experts’ review of the submitted cases. If your lead interpreting physician believes that the selected case is representative of your facility’s "best work" then you should submit it for accreditation. If your lead interpreting physician has concerns about the quality of the work and whether it meets the ACR requirements, you should carefully review the Clinical Image Quality Guide.

If you need additional help, you should consult with a medical physicist (or MR scientist) who has experience in MRI regarding your routine protocols before selecting and submitting cases for accreditation. This is not something that can be done over the phone or on paper. Protocols differ for each manufacturer and model of equipment. The individual will need to work with your staff at the console to determine if your system will be able to accept the parameters necessary to meet the ACR requirements while ensuring that all necessary anatomy is covered and the required times, slice
thickness and in-plane spatial resolution are met. The ACR cannot provide this type of consultative service.

Please note that your accreditation submission contains HIPAA data, so we strongly recommend that you send your submission via traceable method with a signature required for delivery.

Q. May we submit cases for accreditation review with motion correction?

A. Yes, but keep in mind that the case must be an example of your “best work.”

Q. We have an Aurora Dedicated Breast MRI System that acquires a pre-contrast T1-weighted series that is also a T2-weighted/bright fluid series. Consequently, we cannot submit the 4 required sequences? May we submit only 3 sequences for accreditation review?

A. Yes. If the pre-contrast series is sufficiently T2-weighted, it can be evaluated as both the T2-weighted/bright fluid series and the pre-contrast T1-weighted series. In this case, enter the acquisition parameters under “Pre-Contrast T1” in the Clinical Test Image Data section; in the “Sequence name/type” space under “T2-Weighted/Bright Fluid Series”, check “see pre-contrast T1W.” Do not fill out the remaining parameters for the T2-weighted/bright fluid series.

Q. The Aurora EDGE software uses a distinctly different acquisition time for the pre-contrast series compared with that of the post-contrast series. Is this difference acceptable?

A. Yes.

Q. Are the requested acquisition times in the Clinical Test Image Data section for all series or specific to individual series?

A. The requested acquisition times are specific to the indicated individual series (i.e., time for the T2-Weighted Bright Fluid series, time for the Pre-Contrast T1 series, time for the Early Phase (1st) Post-Contrast T1 series, or time for the Delayed Phase (last) Post-Contrast T1 series). Do not provide the time it takes to complete the entire multi-series set.

Q. The Clinical Test Image Data section asks us to provide the time delay between the end of the injection and the beginning of the 1st post-contrast series. We calculate the time delay differently…we use the difference between the end of injection to the end of the first dynamic contrast pass. May we provide this time instead?

A. No. The information you provide in the Clinical Test Image Data section is evaluated by the ACR reviewer according to the ACR criteria provided in the Clinical Image Quality Guide. You must provide the requested information as defined in the accreditation materials.

Q. The Clinical Test Image Data section asks us to provide the time delay between the end of the injection and the beginning of the 1st post-contrast series. Does this include the saline flush?

A. No. Do not include the time for the saline flush in this value.

Q. Our facility runs the breast MRI exams through a CAD system. Do we need to submit the post-processed data from this system?

A. No. The only reason you would need to submit any post-processed data is if you do not perform fat-saturation on your multiphase T1-weighted series and need to submit subtracted images corresponding to the early-phase and late-phase post-contrast series, along with the originally acquired pre-contrast, early-phase post-contrast, and late-phase post-contrast images. If you do fat-
sat, you only need to send the requested acquired images. If you do not do fat-sat, you can still do subtractions on the MR system itself for the 1st and last post-contrast series and send those. You still don't need to send any CAD-processed images. Most sites with MRI CAD systems just send the acquired images to CAD and PACS and depend on the CAD system to do subtractions, MIPS, etc. In that case, if you didn’t do fat-sat, the subtractions might come from the CAD system or you might do the subtractions on the MR system (which you normally wouldn’t do) and send those. Doing the subtractions on the MR system and sending those, along with the required original images, is simpler for most sites.

Q. Our facility always performs sagittal T2-weighted series of each breast separately. When submitting images for accreditation, may we “bind” the left and right sagittal T2-weighted series into 1 series and submit that?

A. The T2-weighted/bright fluid series may be run as a single series on both breasts or as 2 separate series, 1 on each breast. If you run them separately, be sure to write down both series numbers on the Clinical Test Image Data section under “T2-Weighted Bright Fluid Series” so the reviewers will know that you did both breasts with a T2-weighted series. (You do not need to bind them into a single series.)

Q. May we submit cases with “stacked” or “interleaved” sequences for accreditation?

A. The ACR’s Committee on Breast MRI Accreditation prefers that each sequence be presented separately and not as “stacked” or “interleaved” sequences. (Contact your MRI manufacturer representative for assistance). If your manufacturer informs you that it is impossible for your equipment to present the sequences separately, we will accept them. However, reviews may be delayed due to the difficulty of reviewing these cases.

Q. My unreviewed accreditation cases were returned to me because the “disc would not open within 2 minutes.” What can I do to provide discs that will open under 2 minutes?

A. The ACR requires that discs submitted for accreditation open to show the patient images within 2 minutes to prevent any delay of your accreditation reviews. ACR reviewers have reported that they have spent up to 10 minutes waiting for discs to open before they can review some cases; this significantly impacts the number of cases they can review. The most common cause of delay in opening is that facilities burn the entire exam on the disc rather than only the requested sequences. ACR staff checks each disc submitted for accreditation on a modern, powerful PC to ensure that images open within 2 minutes before sending them to the reviewers to score.

To minimize the time it takes to open a disc, we recommend the following:

- Only submit the scout/localizer and the 4 requested sequences (1. T2-weighted/bright fluid, 2. Pre-contrast T1, 3. Early phase (first) post-contrast T1, and 4. Delayed phase (last) post-contrast T1). If you are unsure how to provide only the requested sequences, please contact your equipment manufacturer (if you are burning the CD from the MRI system) or your PACS vendor (if you are burning the discs via PACS). ACR staff cannot assist you with this process since it is different for every manufacturer; we also do not want to provide incorrect information that may apply to one manufacturer but not another.

- Open and check each disc on a different computer to make sure it opens to display images within 2 minutes and the embedded viewer displays all required exam identification and labeling information (or that information is easily accessed in the DICOM header).

Q. Must the images provided for Breast MRI Accreditation be in a DICOM format?
A. Yes, the images must be in a DICOM format without compression. Other formats (JPEG, BITMAP, etc.) are not acceptable. ACR reviewers look at the DICOM information to aid them in determining if the case submitted meets the accreditation program’s requirements.

Q. With our system, the only way we can burn a disc with the images in a DICOM format is from the MR system’s workstation. However, our MR manufacturer informs us that they cannot embed a viewer from the workstation. We can embed a viewer on the disc if we burn it via our PACS. However, our PACS vendor informs us that we cannot burn images in a DICOM format; it only burns images in a JPEG format. What should we do?

A. Under these special circumstances, you must submit the cases in a DICOM format, even if you cannot embed a viewer on your disc. The ACR reviewers will evaluate the cases with a separate viewer. Please include a note with the submitted cases that you were unable to embed a viewer on the disc so that the disc is handled appropriately.

Q. Must the embedded viewer we include with our cases have the capability of providing measurement tools and reference lines such as ROIs?

A. No, the embedded viewer can be very basic. The minimum requirements of the embedded viewer are that it provide minimum exam identification and labeling information. (See the Testing Instructions for complete information.)

Q. Are we required to submit a phantom image for Breast MRI Accreditation?

A. No, facilities applying for accreditation are not required to submit phantom images for breast MRI accreditation review at this time. However, the ACR may require phantom image submission as this accreditation program matures.

Quality Assurance and Quality Control

Q. Do we need to have a physician peer-review program in place (e.g., RADPEER™) for Breast MRI Accreditation?

A. No, it is not required for Breast MRI Accreditation since applicants are required to have a medical outcomes audit program.

Q. Are there any QC tests specific to breast MRI that are required for breast MRI accreditation in addition to those required for general MRI accreditation?

A. No. The tests outlined in the 2004 ACR Magnetic Resonance Imaging (MRI) Quality Control Manual must be performed. In addition, the most recent annual MRI System Performance Evaluation report must indicate that the performance of the site’s bilateral breast coil(s) has been checked and was acceptable. Although many of the procedures and action criteria outlined in the 2004 ACR Magnetic Resonance Imaging (MRI) Quality Control Manual were written specifically for the ACR MRI Accreditation Phantom, the ACR understands that the use of this phantom may not be possible for all QC in breast imaging. Some facilities use the ACR Small MRI Phantom for this purpose. The ACR leaves the choice of the QC phantom and the resultant action criteria to the facility. This decision must be made by the qualified medical physicist/MR scientist in cooperation with the system vendor.

Q. Are there weekly/monthly QC tests for breast MRI? Who should perform these tests?

A. Yes, there are periodic QC tests that must be performed by the MRI technologist. All required QC tests and their frequencies are outlined in the Breast MRI Accreditation Program Requirements and the 2004 ACR Magnetic Resonance Imaging (MRI) Quality Control Manual. The medical physicist/MR scientist should identify the MRI technologist responsible for performing the tests and may choose to
increase the frequency of testing based on the facility and MRI usage. If any QC parameter being monitored falls outside of control limits, corrective action must be taken. A medical physicist/MR scientist should be available to assist in prescribing corrective actions for unresolved problems.

Q. We have the standard large ACR Phantom that fits in the head coil. Should the technologist conduct the weekly QC of the breast MRI unit using the large ACR phantom in the head coil?

A. The ACR leaves the choice of the QC phantom and the resultant action criteria to the facility. This decision must be made by the qualified medical physicist/MR scientist in cooperation with the system vendor. Although many of the procedures and action criteria outlined in the 2004 ACR Magnetic Resonance Imaging (MRI) Quality Control Manual were written specifically for the ACR MRI Accreditation Phantom, the ACR understands that the use of this phantom may not be possible for all QC in breast imaging. Some facilities use the ACR Small MRI Phantom for this purpose.

Q. Do you have a list of vendors who offer a MRI phantom that would fit in a unit only designed for breast?

A. The ACR’s “small” MRI phantom does fit in most breast coils. Information about the phantom is located on our website at the links below:

http://www.acraccreditation.org/~media/ACRAccreditation/Documents/MRI/SmallPhantomOrderForm.pdf?la=en


Q. Our site cannot print hardcopies of MRI images. (Although laser printers are available in mammography, they are not hooked up to the MRI scanners.) Is it required that the MRI department perform QC testing on those printers?

A. No, if your facility does not have laser printer capability for Breast MRI, there is no need to perform QC for a laser printer. Just indicate that you do not use a laser printer when you complete the application.

Q. What quality control (QC) data do we need to submit for accreditation?

A. As part of accreditation, you must submit a copy of your most recent medical physicist/MR scientist equipment survey for each unit used for breast MRI. The ACR also requires that routine QC be performed by the technologist on all MRI units used for breast imaging. See the Breast MRI Program Requirements for details.

Q. How often must a medical physicist perform a System Performance Evaluation of my MRI equipment?

A. Your medical physicist (or MR scientist) must conduct a System Performance Evaluation of your accredited MRI equipment at least once a year. Compliance with this requirement will be checked during the unannounced site visits that will be conducted by the ACR and/or the CMS. (The ACR allows for a 14-month window for this annual evaluation.)
Q. We already submitted our medical physicist's MRI Equipment Evaluation results for this unit to the ACR when we accredited in the general MRI accreditation program. Does the medical physicist have to repeat the survey on the same unit for breast MRI Accreditation?

A. No, your medical physicist/MR scientist does not need to repeat the MRI Equipment Evaluation survey specifically for breast MRI as long as the breast coils were checked during the survey. However, you must submit the MRI Equipment Evaluation survey for Breast MRI Accreditation, even if it was submitted previously for general MRI accreditation. The ACR will check to ensure that the unit has been surveyed within the past year.

Q. We submitted our medical physicist's MRI Equipment Evaluation results along with his/her completed Evaluation of Site's Technologist QC Program form to the ACR. However, we received a notice from the ACR that the information was incomplete since he/she did not evaluate the MRI technologist's “Artifact Analysis” test. Our medical physicist uses the Evaluation of Site's Technologist QC Program form in the 2004 ACR Magnetic Resonance Imaging (MRI) Quality Control Manual. Is this the correct form?

A. Yes, this is the correct form but there is an error in it. Although the Artifact Evaluation test is clearly outlined in the technologists section of the 2004 ACR Magnetic Resonance Imaging (MRI) Quality Control Manual, the Artifact Analysis test evaluation is missing from the Evaluation of Site's Technologist QC Program form in the medical physicist's section. This has been corrected in the Evaluation of Site's Technologist QC Program form on the ACR website. Your medical physicist should use this form. We apologize for the confusion and will correct this in future editions of the manual.

Breast Imaging Centers of Excellence

Q. Will the ACR's new Breast MRI Accreditation Program be required for the Breast Imaging Centers of Excellence (BICOE) designation?

A. Probably in the future, ACR will require accreditation in breast MRI for sites wanting to have the BICOE designation. However, the requirement for Breast MRI Accreditation may not be required for BICOE designation for several years.