ACR Ultrasound Accreditation: Requirements and Pitfalls

Presented to:
American Association of Physicists in Medicine

Presented by:
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ACR Quality & Safety
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Disclosures

NONE

Accreditation Update
Objectives
By the end of this presentation:
• Understand the impact accreditation may have on your practice
• Be aware of requirements and updates to the ACR Ultrasound Accreditation program
• Be able to apply for and successfully achieve ACR ultrasound accreditation

WHO ARE WE?
The American College of Radiology, founded in 1924, is a nonprofit professional medical society dedicated to serving patients and society by empowering radiology professionals to advance the practice, science and professions of radiological care.

Core Purpose of the ACR:
To serve patients and society by empowering members to advance the practice, science and professions of radiological care.

ACR Core Values
Leadership  Integrity  Quality  Innovation
Advocacy  The ACR advocates on behalf of the radiology profession and ACR membership with Congress, federal agencies and state legislative and regulatory bodies.

- **Education**  ACR offers a comprehensive array of educational options to best meet your learning needs — no matter what field of radiology you specialize in.
- **Economics**  ACR Economics and Health Policy focuses on issues related to how radiologists and radiation oncologists are reimbursed for their services under the guidance of the Commission on Economics.
- **Quality & Safety**  Improving the quality and safety of patient care is a core element of the ACR mission. The College takes a proactive and aggressive approach on key issues impacting radiology.
- **Clinical Research**  The ACR produces scientific and health policy research to advance the practice of medical imaging and radiation oncology.
- **Membership**  ACR membership offers exclusive services, benefits, and opportunities. Whether you’re looking to advance your career, further your education, or sharpen your clinical skills, the ACR is your one-stop resource.

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**ACR BY THE NUMBERS**

<table>
<thead>
<tr>
<th>Membership</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>55%</td>
<td>20,660 Diagnostic Radiologists</td>
</tr>
<tr>
<td>3%</td>
<td>1,162 Interventional Radiologists</td>
</tr>
<tr>
<td>3%</td>
<td>1,033 Radiation Oncologists</td>
</tr>
<tr>
<td>5%</td>
<td>172 Nuclear Medicine Physicians</td>
</tr>
<tr>
<td>3%</td>
<td>658 Medical Physicists</td>
</tr>
<tr>
<td>16%</td>
<td>6,037 Retirees</td>
</tr>
<tr>
<td>21%</td>
<td>4,028 Members-in-Training</td>
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Total Members: 37,770

Due to rounding, total percentage does not equal 100%
ACR Quality & Safety

- Over 38,000 accredited medical imaging facilities
- Radiology lexicons
- ACR BI-RADS®
- Lung-RADS™
- Practice Parameters and Technical Standards
- ACR Appropriateness Criteria®
- RADPEER™
- Founding member of Image Wisely® & Image Gently®
- Choosing Wisely® participant
- ACR Designated Lung Cancer Screening Center™
- Pay-for-Performance resources
- National Radiology Data Registry
- Lung Cancer Screening Registry
- Dose Index Registry®
- ACR Manual on Contrast Media

What is ACR Accreditation?

- Peer review process developed and monitored by experts
- Concept must be approved by the ACR Council
- Assesses specific parameters for each imaging modality
- Based on ACR Practice Parameters and Technical Standards
- Ongoing review of accreditation program by the committee
- Pilot tested before being launched

ACR Accreditation

- Staff qualifications
- Policies and procedures
- Protocols
- Equipment specifications
- Diagnostic image quality
- Therapeutic treatment quality
Goals of ACR Accreditation

- Set quality standards for imaging practices
- Provide recommendations for improvement
- Help sites improve quality of patient care
- Recognize quality imaging practices

ACR Nationally Recognized Accreditation Programs:

- CT
- Nuclear Medicine and PET
- MRI
- Breast MRI

The ACR offers accreditation programs as mandated under the Medicare Improvements for Patients and Providers Act (MIPPA):

- CT
- Nuclear Medicine and PET
- MRI
- Breast MRI

The ACR offers accreditation for modalities mandated under the Mammography Quality Standards Act (MQSA):

- Mammography
ACR’s Accreditation History
Since 1987, the ACR has accredited more than 38,000 facilities in 10 different imaging modalities.

- 1986 – Radiation Oncology
- 1987 - Mammography Accreditation
- 1992 – FDA adopts ACR’s mammography accreditation program
- 1995 – Ultrasound
- 1996 – Stereotactic Breast Biopsy
- 1996 – MRI
- 1996 – Breast Ultrasound
- 1999 – Nuclear Medicine
- 2002 – CT, radiography/fluoroscopy, and PET
- 2010 - CMS accepts ACR as accrediting organization for MIPPA Breast MRI program launched

<table>
<thead>
<tr>
<th>MODALITY</th>
<th>ACCREDITED FACILITIES</th>
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</thead>
<tbody>
<tr>
<td>Mammography</td>
<td>8274</td>
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<tr>
<td>MRI</td>
<td>7130</td>
</tr>
<tr>
<td>CT</td>
<td>6911</td>
</tr>
<tr>
<td>Ultrasound</td>
<td>4970</td>
</tr>
<tr>
<td>Nuclear Medicine</td>
<td>3556</td>
</tr>
<tr>
<td>Breast Ultrasound</td>
<td>2201</td>
</tr>
<tr>
<td>PET</td>
<td>1560</td>
</tr>
<tr>
<td>Stereotactic Breast Biopsy</td>
<td>1451</td>
</tr>
<tr>
<td>Breast MRI</td>
<td>1462</td>
</tr>
<tr>
<td>Radiation Oncology</td>
<td>665</td>
</tr>
<tr>
<td>Total</td>
<td>38,210</td>
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Diagnostic Imaging Center of Excellence (DICOE)

- Provides a comprehensive assessment of the entire medical imaging enterprise including structure and outcomes
- Participation in ACR registries at no cost
- Ongoing process for self-assessment
- Recognition that distinguishes your facility to providers, payers, patients and administrators
DICOE Eligibility:
- ACR accreditation in all modalities provided for which ACR offers accreditation
- Participates in Dose Index Registry® and General Radiology Improvement Database
- Has pledged to Image Gently® and Image Wisely®
- Site survey assessing multiple areas of quality, safety, procedures and personnel by an ACR
  survey team that includes a radiologist, medical physicist and technologist working with your team
  members

Areas of Assessment:
- Governance
- Personnel
- Facility organization and management
- Physical environment
- Equipment and IT infrastructure
- Radiation and general safety
- Quality management
- Policies and procedures
- Patient rights
- Medical records

First International DICOE

Why Seek ACR accreditation?
- Peer-reviewed, educationally focused evaluation of practice
- Expert assessment of image quality
- Validate good practice through peer-review
- May document need for new or dedicated equipment, continuing education or qualified personnel
- Formal review may be used to meet criteria of state government, federal government or third party payers
• Self assessment of practice quality
• Marketing tool – set a practice apart from the rest
• Patient confidence
• Better informed patients are seeking high quality care
  ✓ ---72% of Internet users say they looked online for health information *
  ✓ ---68% say the information they found influenced their medical decisions

* http://www.pewinternet.org/fact-sheets/health-fact-sheet

Patients can look for accredited facilities on the ACR website

Accredited Facility search
ACR Practice Parameters and Technical Standards serve as the foundation for accreditation programs.

Practice Parameters

- Describe recommended conduct in specific areas of clinical practice.
- Based on analysis of current literature, expert opinion, open forum commentary and formal consensus.
- Not intended to be legal standards of care or conduct, may be modified as determined by individual circumstances and available resources.
The Practice Parameters have been organized under the headings below. Some documents may be included under multiple headings:

- Medical Physics
- Nuclear Medicine
- Medical Imaging Practice Parameters
- Diagnostic Radiology
- Nuclear Medicine Practice Parameters and Technical Standards
- Cardiac Imaging Practice Parameters and Technical Standards
- Computed Tomography (CT)
- Magnetic Resonance Imaging (MRI)
- Ultrasound
- Interventional Radiology
- Neuroimaging
- Image Quality

Technical Standards

- Describe technical procedures or practices that are quantitative or measurable.
- Often include specific recommendations for patient management, equipment specifications or settings.
- Based on analysis of current literature, expert opinion, open forum commentary and formal consensus.
- Intended to set a minimum level of acceptable technical proficiencies and equipment performance, may be modified as determined by individual circumstances and available resources.
  - Medical Physics
  - Nuclear Medicine
### Technical Standards

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<th>Component</th>
<th>Description</th>
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### Medical Physics

The ACR–AAPM Technical Standard for Diagnostic Medical Physics Performance Monitoring of Real Time Ultrasound Equipment was adopted May 2016.

### Field Review

Members may make comments on items in the Practice Parameters or Technical Standards and suggest changes.

### 2017 Draft ACR Practice Parameters and Technical Standards

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### A Brief Description of the Field Review Process

Draft ACR Practice Parameters and Technical Standards are presented to field reviewers for comment. Field reviewers are specialists in diagnostic medical physics who are selected by the ACR on the basis of their expertise, commitment to the field, and willingness to participate in the review process. The draft standards are reviewed by the ACR medical physics committee and approved by the ACR Board of Directors before being published.
The Technical Standards Being revised for 2017:

• ACR–AAPM Technical Standard for Diagnostic Medical Physics Performance Monitoring of Computed Tomography (CT) Equipment

• ACR–AAPM–SIIM Technical Standard for Electronic Practice of Medical Imaging

Membership

Become a member today!

Membership Services

ACR membership provides information for current ACR members, assisting ACR members and people interested in becoming a member. The membership section contains important information about existing members, membership benefits, and opportunities.

- ACR-Certified Medical Physicists
  - Two year period of membership: $200
  - Three year period of membership: $300
- ACR-Illinois Section
  - Two year period of membership: $100
  - Three year period of membership: $150
- ACR-Illinois Section
  - Two year period of membership: $50
  - Three year period of membership: $75

For information on other membership benefits, please visit our website.
Preparing for ACR Accreditation

Applying for and achieving ACR accreditation is a team process that involves everyone in the facility.

Accreditation Process

- Site applies for accreditation online
- ACR staff processes application and sends Testing Materials
- Site is allowed 45 days to submit testing items
- Once all Testing Materials received, items are sent for review
- Clinical images are reviewed by 2 Radiologists
- Submitted QC is reviewed by ACR staff
- Our streamlined application process has cut approval time in half, with accreditation evaluation typically completed within 30 - 60 days of image submission. Electronic submissions process the quickest.

** Ultrasound is location based, not unit based.

Dedicated Accreditation Webpage

http://www.acraccreditation.org/
Lead technologist should be account “login”!
Sonographer Requirements

Initial:
*Registered or registry eligible*
  - American Registry of Diagnostic Medical Sonographers (ARDMS)
  - American Registry of Radiologic Technologists, Sonography (ARRT) (S)
*All sonographers should obtain certification within 24 months of eligibility*

Breast (BR) credential earned prior to June 30, 2010 will be accepted

Renewal:
All sonographers must be certified and currently registered as RDMS (OB or AB), RT(S), RT (VS), RVT, or RVS.

Initial and Renewal Vascular Accreditation Sites
  - RVT (Registered Vascular Technologist) by the ARDMS
  - Vascular Sonographer (VS) by the ARRT
  - Registered Vascular Specialist (RVS) (also known as RCVT) by Cardiovascular Credentialing International (CCI)

Vascular tech must be on-site during the performance of ROUTINE vascular examinations.
Ultrasound Accreditation Program
Quality Control Requirements

- Eff. June 1, 2014, documentation of QC is required
- Includes acceptance testing, annual survey, routine QC tests, and preventive maintenance
- Initial applications & renewal submissions require annual survey reports
- Maximize the value of QC investment
- Physicist involvement is “strongly recommended”

Specific tests are required for Annual Survey

- All machines and probes must be tested
- Image Uniformity
- System Sensitivity
- Physical and mechanical inspection
- Display Performance – machine and interpretation

An Ultrasound QC Manual does not yet exist

- Specific testing methods are not prescribed (subjective and objective methods are acceptable)
- Use of phantom(s) or test object(s) is required, but no specific vendor or model is given, and custom test objects are acceptable
- No specific pass/fail performance criteria are prescribed
Routine QC program

• A continuous QC program is essential to assure the proper functioning of all ultrasound equipment and to identify problems before the diagnostic utility of the equipment is significantly impacted
• All machines and transducers in routine clinical use should be tested semiannually

Routine QC Program

Typically performed by:
- Equipment service engineer
- Appropriately trained sonographer
- Biomed

Routine QC tests

Likely performed by sonographer(s) in the clinical practice twice per year (quarterly testing is recommended)
Ultrasound Evaluation Attributes
Outlines accreditation image requirements


Submission of Images

- Electronic *Recommended*
- Three choices to upload images!
  1. Web client – choose images
  2. Windows client – choose folders
  3. Windows client – connect to your PACS
- CD
- Film
**Benefits of Electronic Submission**

- Secured server, files encrypted
- Mitigates the risk of losing images
- Reduces errors in incorrect submission format
- Cuts costs associated with burning and shipping CDs or films
- Reduces delays in shipping items between facilities, ACR and reviewers
- Reduces turnaround time
- Ensures compliance with HIPAA regulations throughout the process

**Exam Submission - Clinical Images Only**

**Modules:**

- Obstetrical
  - 1st, 2nd, 3rd, or any combination of trimesters
- Gynecological
- General
- Pediatric
- Vascular
  - Peripheral
  - Cerebrovascular
  - Abdominal
  - Deep Abdominal
Ultrasound Submission Review:
Review Sheet Attributes
A. Report Identification
B. Exam Identification
C. Image Quality
D. Anatomic Coverage
E. Additional Recommendations
F. Additional Comments

Ultrasound Scoring
5 – Excellent
4 – Good
3 – Satisfactory
2 – Marginal
1 – Poor

Accreditation Outcome
• Determined by radiologist reviewers
• Scoring based on ACR Practice Parameters
• Each category must pass for site to be accredited
• Final report issued to site
• Certificate and Media Kit are issued upon approval
• Accreditation is granted for three years
If the site does not pass the first time:

- **Repeat**
  - Site retests the deficient area(s)
- **Appeal**
  - Site appeals the final outcome
  - The original images are reviewed by a senior reviewer not involved with the first review
- **Withdraw**
  - Site withdraws the section from accreditation process

If the site does not pass the second time:

- **Reinstate with Corrective Action Plan**
  - Site will submit a corrective action plan that ACR staff technologist must approve prior to image submission
  - All testing to be resubmitted
- **Appeal**
- **Withdraw**

**Compliance Monitoring After Accreditation Granted**

- Random On-Site Surveys
- Validation Site Surveys
- Targeted Film Checks
VSS Outcomes *(Through 2015)*

Common Pitfalls in Ultrasound Accreditation

- Failure to review required attributes/testing instructions
- Incomplete Annual Survey report
- Failure to perform annual QC
- Lack of credentialed personnel
- Failure to send complete set of clinical images
- Submitting tech worksheets in place of physician reports
- Failure to submit diagnostic criteria for vascular exams