American College of Radiology Accreditation Programs
ACR Accreditation Programs

- History of accreditation programs
- Radiology should set standards for radiology
- Peer review process
Commission on Standards & Accreditation

- E. Stephen Amis, Jr., M.D.
- Jeffrey Weinreb, M.D.
Accreditation Chairs

- Radiation Oncology
- MRI
  - MRA
  - Cardiac MR
- Radiography & Fluoro
- Breast Ultrasound
- Mammography
- Stereotactic Breast Bx
- Ultrasound
- Nuclear Medicine
- Chest Radiology
- CT
- Invasive Vasc & Intervent

Peter Hulick
Jerry Froelich
Martin Prince
David Bluemke
Stephen Baker
Peter Dempsey
Judy Destouet
D. David Dershaw
John McGahan
Ronald Van Heertum
Robert Steiner
Robert Zeman
Jonathan Levy
ACR Accreditation Programs (cont.)

- 1963 - Development of diagnostic accreditation
ACR Accreditation Programs (cont.)

- 1987 Mammography
- 1987 Radiation Oncology
- 1995 Ultrasound
- 1996 Stereotactic Breast Biopsy
- 1996 MRI
ACR Accreditation Programs (cont.)

- 1997  Vascular Component added to Ultrasound
- 1998  Ultrasound-guided Breast Biopsy
- 1999  Nuclear Medicine
- 2000  Breast Ultrasound added to US-guided biopsy
Other Accreditation Programs Under Development

- General Radiograph (including Chest) and Fluoroscopy
- Interventional
- CT
New Modules Under Development for existing programs

- Orthopedic magnets (MRI)
- Cardiac (MRI)
- MRA (MRI)
- PET (Nuclear Medicine)
ACR ACCREDITATION UMBRELLA POLICY
Umbrella Accreditation Program

- To be developed once new programs completed
- Single application
- Streamline paperwork
Motivation for Accreditation

• Uphold high standards of practice
• Address variations in quality and practice
• Provide lists of accredited facilities for referral
Accreditation Principles

1) Evaluation must be voluntary
2) Confidential, peer review process
3) Educational not punitive
4) Written report with appeals process

- from Jacobs, JA. Certification and Accreditation Law Handbook
Accreditation Principles (cont. #2)

5) Program is valid and credible, reasonable
6) Provide a public benefit
7) Conflict of interest
8) Timely and cost effective - by mail

- from Jacobs, JA. Certification and Accreditation Law Handbook
Accreditation Principles (cont. #3)

9) Available to all who meet the criteria

10) Issues such as antitrust and restraint of trade are recognized and addressed

- from Jacobs, JA. Certification and Accreditation Law Handbook
Accreditation Principles (cont. #4)

11) Non-exclusive
12) Professional staff administer ACR programs

- from Jacobs, JA. Certification and Accreditation Law Handbook
ACR Approval Process

- Resolution for any new program must be sent to the Council
- Concept must be approved by Council
Committee Structure

- Chair is nominated by the Chair of Commission on S&A
- Expert in the field
- Approved by Chairman of the BOC
Committee Structure

- Committee chair selects radiologists & medical physicists who are experts in the field
- Broad geographic and practice settings represented
- Including representative from small and rural practice
- Liaisons from other medical specialties, if needed
Development process

- Multiple day long meetings over 2-3 years
- Reston or Chicago
- Develop criteria for physicians, physicists and technologists based on the appropriate Standard and expert opinion
Recommendation from Council Steering Committee to initiate accreditation program

Organize committee to develop program

Form Physics subcommittee

Design and develop phantom

RFP to phantom manufactures

Hold committee meetings to develop accreditation criteria

ACR Accreditation Program Development Process Flowchart
RFP to phantom manufacturers

Evaluate prototype phantoms and select manufacturer

Hold committee meetings to develop accreditation criteria

Prepare RFP for Independent Medical Physicist, (IMP)

Evaluate and select IMP

Develop protocol for phantom

Train IMP

Develop clinical standards and required examinations

Initiate Pilot programs

Review Pilot program and make any necessary revisions

Select and train reviewers

Announce completion of program and begin accepting applications.
Clinical Images

- Select exams most frequently performed and/or technically challenging
- Develop scoring process
- Test scoring process on actual cases from committee sites that represent good and poor image quality
Phantom & QC Requirements

- Developed by medical physicists
- Determine technical parameters that must be evaluated
- Evaluate existing phantoms
- Develop specifications for new phantom if necessary
Phantom & QC Requirements (cont.)

- Perform testing of existing or prototype phantom
- Optimize specifications
- Issue RFP to all potential manufacturers
Independent Medical Physicist

- Selected thru a RFP
- Evaluates all phantoms submitted from manufacturers
- Provides data to the Committee
- Once program active, does QC on every 10th phantom
Pilot Test

- Facilities from Committee members
- Representation from all practice types
- Complete all paperwork & testing
- No accreditation granted
Pilot Test (cont.)

- Paperwork evaluated by staff
- Data summarized
- Committee scores clinical and phantom images
- Validate that criteria is correct
- Make necessary modifications
Radiologist and Physicist Reviewers

- Experience in modality
- Participate in formal training program
- In active practice
Radiologist and Physicist Reviewers (cont.)

- 2 reviewers per exam/phantom
- If disagreement, to arbitration by senior reviewer
- Committee Chair QC’s reviewers stats quarterly
Final Approval Process

- CSC reviews final documents and process
- BOC gives final approval
Ongoing Review

- Annual review of criteria
- Based on data
- Concordance with current Standards
Appeal process

• In response to referral to BOC of Res. 39, 1999
  – Committee of Accreditation Chairs met
  – Developed regular review process for all programs
  – Developed appeal process
Appeal process (cont.)

- Written submission of issue by any eligible participant
- To the Chair of the Commission on S&A
- Considered by appropriate Committee and response to the Chair of S&A
Appeal process (cont.)

- Chair of S&A will respond to appellant
- Issues that may impact other programs to be considered by Committee of Accreditation Chairs
Testing Process
Facility Submits Clinical and Phantom Images Plus Full Application to ACR

ACR Professional Staff Review Full Application

2 Radiologist Experts Review Clinical Images

2 Medical Physicist Experts Review Phantom Images (except US)

ACR Issues Final Report
Clinical Images

• Submit complete exams with all images from same pt.
  – Exams must be from real pts. (not volunteers)
• Reviewer assumes images are an example of facility’s best work
• Keep in mind reviewer does not have the benefit of real time
• Physician should select images for submission
Clinical Images

- Maintain copies of all images & patient names
- Send via Express mail, FEDEX, etc.
- Transparency; no electronic format at this time
Full Application

- Collects practice data that will enable correlation between practice patterns and equipment specifications compared to outcome on accreditation
- Documents that personnel meet criteria
- Demonstrates compliance with requirements
- QC data
Accreditation Denial

- Deficiency report
  - clinical
  - phantom
  - dose
ACR Issues Final Report

Deficiency

OR

Facility Repeats

Facility Appeals

OR

Failure Upheld

Facility Passes

OR

Passes

ACR Issues 3 Year Certificate (notifies FDA for Mammo)
Repeat after Deficiency

- Submit only those images that did not pass.
Facility Repeats

Fails

- Submit Corrective Action Plan (CAP)
- OR
  - Facility Appeals

  - OR
    - Failure Upheld
    - OR
      - OR
        - Facility Passes

Passes

- ACR Issues 3 Year Certificate (notifies FDA for Mammo)
Appeal Process

- Send letter of appeal within 30 days
- Re-submit films originally evaluated
- No new films are acceptable
Failure

- Fail after repeat
- Cease until after corrective action
  - Required for mammography
  - No reimbursement for mammography
  - Recommended for other modalities
- Apply for Reinstatement
Facility Reinstatement

- Prior accreditation history
- Corrective Action Plan (CAP)
Failure after Reinstatement

- Failure on third attempt
  - Cease mammography
- Submit CAP with timeline
- ACR site survey at cost to facility
Scheduled On-Site Survey

- Completion of Corrective Action Plan
- More intensive education
- M.D. surveyor evaluates/consults re: clinical image quality
- Physicist surveyor evaluates/consults re: equipment & QC
Equipment Change

- Also applies to used or moved unit from a sister site
- Physicist’s survey/equipment evaluation
- > 1 year left on accreditation
  - Full testing (clinical-phantom-dose-processor)
  - If approved, same expiration dates as other units
- < 1 year left on accreditation
  - Early renewal of entire facility (all units)
  - If approved, expiration date for all units is old +3 years
Renewal

- ACR sends notice 8 months in advance
- Facility should apply 6 months before expiration
- All units at the same time
Validation Film Checks

- ACR designates date for:
  - 1 Set of clinical images
  - Phantom image w/dosimeter (if appropriate)
  - QC data
Goals of On Site Survey

- Education
- Validation
On-site Survey

- Radiologist Responsibilities
  - Team Leader
  - Evaluate clinical image quality
  - Consult with radiologist regarding clinical interpretation
  - Evaluate follow-up logs
On-site Survey

- Physicist Responsibilities
  - Equipment verification
  - Review of annual physicist report
  - Review & score phantom images
  - Image phantom and dosimeter
  - Review & evaluate all QC logs
On-site survey

- ACR Staff Verification
  - Application data
  - Federal, state & local licensure/certification
Scheduled On-Site Survey

- After second fail
- Completion of Corrective Action Plan
- Demonstrate positioning
- More intensive education
Annual Updates (MAP only)

- Personnel changes
- Equipment changes
- Quality Control logs
-Physicist report
Renewal

- ACR sends notice 8 months in advance
- Facility should apply 6 months before expiration
- All units at the same time
COST

- Total charges for existing accreditation programs average approx $550 per FTE radiologist per year
- Charges are generally lower than other organizations’ accreditation programs
- Total charges for existing plus planned programs is approx $1200 per FTE radiologist per year.
COST

• Accreditation fees for hospital-located facilities are usually being paid for by the hospital.

• If a diagnostic practice makes use of all existing ACR accreditation programs, the fees on average total 0.1% of the revenues (professional + technical) *

*Does not include cost of purchasing phantom or doing quality assurance, or cost of administrative and related work to submit an application.
<table>
<thead>
<tr>
<th>Program</th>
<th>Facilities Applied</th>
<th>Units Applied</th>
<th>Facilities Accredited</th>
<th>Units Accredited</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mammography</td>
<td>9322</td>
<td>12,890</td>
<td>8911</td>
<td>11,924</td>
</tr>
<tr>
<td>Ultrasound</td>
<td>2320</td>
<td>N/A</td>
<td>2164</td>
<td>N/A</td>
</tr>
<tr>
<td>MRI</td>
<td>2690</td>
<td>3207</td>
<td>1818</td>
<td>2056</td>
</tr>
<tr>
<td>Stereo Breast Bx</td>
<td>544</td>
<td>551</td>
<td>488</td>
<td>513</td>
</tr>
<tr>
<td>Breast Bx/US only</td>
<td>428</td>
<td>N/A</td>
<td>314</td>
<td>N/A</td>
</tr>
<tr>
<td>Nuclear Medicine</td>
<td>54</td>
<td>132</td>
<td>18</td>
<td>30</td>
</tr>
</tbody>
</table>
Radiation Oncology

Total Facilities Accredited 163

Survey scheduled 20
Medicare Carriers - Vascular Ultrasound

- LMRP requires accreditation by ACR or ICAVL
- or RVT Certification
<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>AK</td>
<td>HI</td>
<td>NV</td>
<td>TX</td>
<td></td>
</tr>
<tr>
<td>AZ</td>
<td>MD</td>
<td>OH</td>
<td>WA</td>
<td></td>
</tr>
<tr>
<td>CO</td>
<td>NJ</td>
<td>OR</td>
<td>WV</td>
<td></td>
</tr>
<tr>
<td>DE</td>
<td>NC</td>
<td>PA</td>
<td>WY</td>
<td></td>
</tr>
<tr>
<td>DC</td>
<td>ND</td>
<td>SD</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
THIRD PARTY PAYERS
Private

- Aetna US Healthcare MRI, Mammo, OB US
- Blue Cross of NJ min standards for any provider of imaging
- Blue Cross of PA OB US
- Cigna of CT OB US
- Highmark Blue Cross of PA MRI
- NY Medical Imaging, PLLC MRI, US (outpt)
<table>
<thead>
<tr>
<th>State</th>
<th>Accreditation</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA</td>
<td>OB US (prenatal dx ctrs.)</td>
</tr>
<tr>
<td>MA</td>
<td>Stereo</td>
</tr>
<tr>
<td>NJ</td>
<td>RO</td>
</tr>
<tr>
<td>NY</td>
<td>RO</td>
</tr>
<tr>
<td>OH</td>
<td>OH</td>
</tr>
</tbody>
</table>