American College of Radiology Stereotactic Breast Biopsy Accreditation Program

ACR Breast Imaging Accreditation Programs

June 2003

- Mammography
  - Accreditation required under MQSA
  - 8251 facilities; 12,077 units accredited
- Stereotactic Breast Biopsy
  - Voluntary
  - 427 facilities; 435 units accredited
- Breast Ultrasound
  - Voluntary
  - 375 facilities accredited

Breast Imaging Accreditation Program Fees

3-Year Accreditation

	Mammo	Stereo	Breast Ultrasound
	(unit based)		(facility-based)
First	$1200	$900	$700 (BU only) $800 (BU & Bx)
Additional	$1050	$800	

Stereotactic Breast Biopsy Accreditation Program (SBBAP)

W. Phil Evans III, M.D.

Chair, Committee on Stereotactic Breast Biopsy Accreditation

Robert J. Pizzutiello, M.S.

Chair, Subcommittee on Stereotactic Breast Biopsy Physics

ACR and the American College of Surgeons (ACoS)

- ACR and ACoS have worked together to define qualifications for non-MQSA qualified physicians
  - Final version approved June 1998
- ACR contracts with ACoS to handle QC and image review aspect of the ACoS Stereotactic Breast Biopsy Accreditation Program
  - Currently, fewer than 10 facilities accredited through that program

SBBAP Personnel Requirements

Depends on Practice Setting

- Apply to
  - Physicians
    - collaborative practice
    - independent practice
  - Radiologic technologists
  - Medical physicists
- Cover
  - Initial training and experience
  - Continuing experience
  - Continuing education

Radiologist Responsibilities
Collaborative Practice

- Mammography interpretation
- Experienced in providing recommendations for biopsy and lesion identification at time of biopsy
- Oversight of all QA and QC
- Supervision of radiologic technologist and medical physicist

SBBAP Physician Requirements
Collaborative Practice

	Radiologist	Other Physician
Initial	•MQSA qualified •3 supervised Bx or 12 independent •3 hrs Cat 1 CME in SBB	•3 supervised Bx or 12 independent •3 hrs Cat 1 CME including triangulation •Exp in post-Bx management
Cont Exp	12 SBB per yr	
Cont Ed	3 hrs Cat 1 CME in SBB per 3 yrs	

SBBAP Physician Requirements
Independent Practice

	Radiologist	Other Physician
Initial	•MQSA qualified •3 supervised Bx or 12 independent •3 hrs Cat 1 CME in SBB •15 hrs CME in breast imaging including benign & malignant disease & CBE	•Evaluate 480 mamms/2 yrs under MQSA qualified MD •15 hrs Cat 1 CME in SBB, OR •36 Bx over last 3 yrs •AND 4 hrs Cat 1 CME rad physics •3 supervised BX or 12 independent
Cont Exp	12 SBB per yr	•Evaluate 480 mamms/2 yrs under MQSA qualified MD •12 SBB per yr
Cont Ed	3 hrs Cat 1 CME in SBB per 3 yrs; must include post-Bx management	3 hrs Cat 1 CME in SBB per 3 yrs

SBBAP Physician Responsibilities
Independent Practice

Radiologist	Other Physician
•Mammo interpretation •Patient selection including documenting correlative CBE •QA including medical audit •QC oversight •Supervision of radiologic tech & medical physicist •Post-biopsy patient management (may include referral to a surgeon on follow-up on certain lesions)	•Patient selection •QA including medical audit •QC oversight •Supervision of radiologic tech & medical physicist •Post-biopsy patient management

SBBAP Personnel Requirements

	Radiologic Technologist	Medical Physicist
Initial	•ARRT registered •Qualified under MQSA (including 200 mamms per 2 yrs) •3 hrs Cat A CEU in SBB •5 hands-on Bx under qualified MD or tech	•Licensed OR state approved OR board certified in diagnostic physics •Master's degree or higher •Qualified under MQSA •1 hands-on stereo survey supervised by qualified med phys
Cont Exp	12 Bx per yr	1 stereo survey per yr
Cont Ed	3 hrs Cat A CEU in SBB per 3 yrs	3 hrs CEU in SBB physics per 3 yrs

Accredited Equipment

- X-ray units
  - Prone table
  - Upright units with add-on devices
  - Lateral arm
- Sampling devices
  - Gun/needle
  - Vacuum assisted devices
- ACR does not accredit
  - Target-on-scout
  - Large gauge needles (e.g., ABBI)

Medical Physicist's Annual QC Tests

- Stereotactic Unit Assembly
- Evaluation of Focal Spot Performance
- kVp Accuracy/Reproducibility
- Beam Quality Assessment (HVL)
- Exposure Reproducibility
- Breast Entrance Exposure, Average Glandular Dose
- Image Quality Evaluation
- Artifact Evaluation
- Digital Field Uniformity
- Localization Simulation (Gelatin Phantom)

Radiologic Technologists QC Tests

Mammo QC Tests Also Apply if Screen-Film Used

- Localization Accuracy - daily
- Phantom Image - weekly
- Hardcopy Output Quality - monthly, if app
- Visual Checklist - monthly
- Compression Force - semi-annually
- Repeat Analysis - semi-annually
- Zero Alignment Test – before each pt., if app

SBBAP Testing Criteria

Clinical Images

- Required image sets
  - Mass
  - Calcifications
- Examples of a facility's best work
  - This does not mean "most difficult cases"
- Lesion biopsied is same as seen on the mammogram
- Needle must be in or near lesion

Clinical Images Submitted for Accreditation

Mass

- Target lesion marked on 2-view mammogram
- Pre-fire stereo pair (gun-needle only)
- Post-fire stereo pair (gun-needle & vacuum)
  - If using vacuum-type cutting needles, show cutting side towards the lesion at the pre-tissue acquisition position (pre-biopsy)

Clinical Images Submitted for Accreditation

Calcifications

- Target calcifications marked on 2-view mammogram
- Pre-fire stereo pair (gun-needle only)
- Pre-biopsy stereo pair (vacuum only)
  - Show cutting side towards the calcifications at the pre-tissue acquisition position Specimen radiograph demonstrating calcium
- Specimen Radiograph

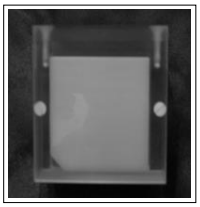
SBBAP Testing Criteria

Dose and Phantom

- Dose
  - Must be less than 300 mrads
- Phantom image quality

	MAP Phantom		Mini Phantom	
	F/S	Digital	F/S	Digital
Fibers	4.0	5.0	2.0	3.0
Speck Groups	3.0	4.0	2.0	3.0
Masses	3.0	3.5	2.0	2.5

Two Types of Approved Phantoms



"Mini" Stereotactic Breast
Biopsy Accreditation Phantom
Nuclear Associates 18-250

Mammography
Accreditation Phantom
RMI 156
Nuclear Associates 18-220

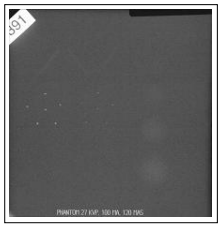
Phantom with Dosimeter

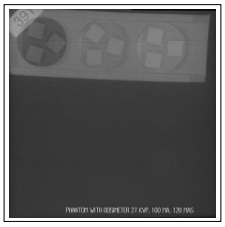
"Mini" Stereotactic Phantom

Place the dosimeter in the
center of the phantom

Phantom Images Submitted for Accreditation

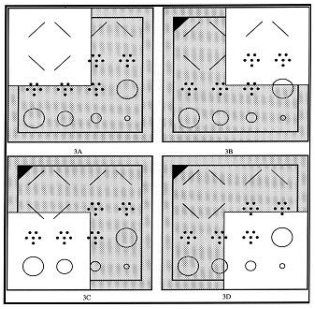
"Mini" Stereotactic Phantom





One image with and one without the dosimeter

Mammography Accreditation Phantom

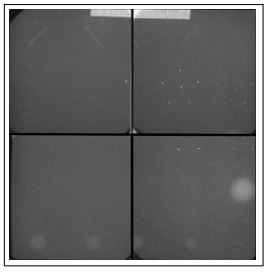


Four
exposures
to image all
test objects

Chest Wall Side

Phantom Images Submitted for Accreditation

Mammography Accreditation Phantom



Fifth exposure
with dosimeter
in center of field

ACR Image Reviewers

- Radiologists and medical physicists
- In full time clinical (or physics) practice
- Board certified
- Over 5 years of experience in accreditation modality
- Participate in formal training program

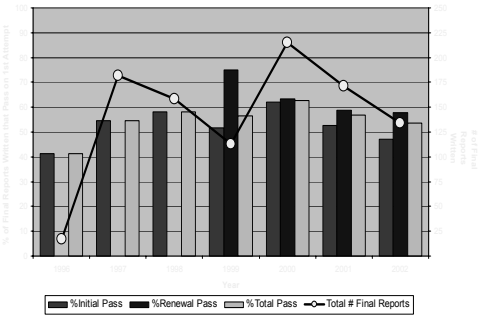
What Happens If a Facility Does Not Pass on the First Attempt?

Attempt	Outcome	Action To Proceed
1st	Deficiency	1. Take corrective action (CA) 2. REPEAT deficient test(s)
2nd	Fail	1. Submit CA to ACR for review and approval 2. REINSTATE by reapplying
3rd	Fail	1. Submit CA to ACR for review and approval 2. Participate in Scheduled On-Site Survey 3. REINSTATE by reapplying

Facilities may appeal any negative decision

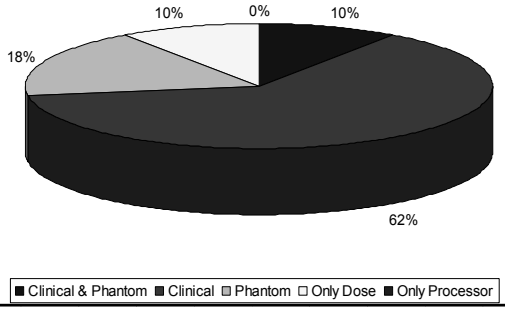
ACR Stereo Accreditation Program Pass Rates – 1st Attempt

(Last full year)



SBBAP Reasons For Failures

1st Attempt 2002



Diagnostic Modality Accreditation Program (DMAP)

- Stereotactic Breast Biopsy
- Breast Ultrasound
- Ultrasound
- Magnetic Resonance Imaging
- Nuclear Medicine and PET
- Computed Tomography
- Radiography/Fluroroscopy

The Good News!

New ACR Diagnostic Modality Accreditation Program features:

- **Less Paperwork !**
- **Streamlined Process !**
- **10% discount for 3 or more modalities**

More Good News!

New ACR Diagnostic Modality Accreditation Program:

If you are applying for more than one modality, you can submit images for each at different times..for example, a month apart

It Is Still A Two-Step Application Process

The DMAP Entry Application Process

The application collects:

- Group practice information
- Personnel lists
- Attestations of CME from MDs and physicists
- Policy & procedure questions & answers
- Modality specific equipment information

Testing Process Modality Specific

- Clinical and phantom images
- Quality control data
- Medical physicist report

For Help with ACR Voluntary Accreditation Programs

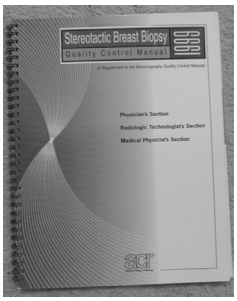
Reston, VA

- Accreditation line
  - (800) 770-0145
- Web site
  - www.acr.org
  - No password needed for accreditation info

Tutorial Video Tapes

- Tutorial tapes are sent to a facility undergoing accreditation.
- Designed to "walk you through" the accreditation process

ACR Quality Control Manuals



- Mammography QC Manual (1990, 1992, 1994, 1999)
- Barium Enema QC Manual (1998)
- Stereotactic Breast Biopsy QC Manual (1999)
- MRI QC Manual (2001)
- Sent free to all facilities in program
- To purchase, call ACR Pubs: (800) 227-7762
- QC forms available to anyone on website

Marketing Tools

ACR provides accredited facilities with a marketing tool kit that includes:

✓Certification Mark & Decal
✓Downloadable Ad
✓Sample Press Release
✓Web site listing

ACR Accreditation Programs

Why Accreditation?

- Improved Quality
- Patient Confidence
- Payer Confidence
- Educational Process
- Validation of quality

American College of Radiology…

Quality Is Our Image™