



1



# American College of Radiology Accreditation Programs

Keys to Accreditation



# ACR Accreditation Programs

- ◆ 1987 Mammography Accreditation Program
- ◆ 1987 Radiation Oncology Accreditation Program
- ◆ 1995 Ultrasound Accreditation Program
- ◆ 1996 Stereotactic Breast Biopsy Accreditation Program
- ◆ 1996 MRI Accreditation Program
- ◆ 1997 Vascular Component added to Ultrasound
- ◆ 1998 - Ultrasound-guided Breast Biopsy Accreditation
- ◆ 1999 - Nuclear Medicine
- ◆ 2000 - Breast US module added to US-guided biopsy program



# Other Accreditation Programs Under Development

- ◆ Chest, General Radiography and Fluoroscopy
- ◆ Interventional
- ◆ CT



# Accreditation Principles

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



# Accreditation Principles (cont. #2)

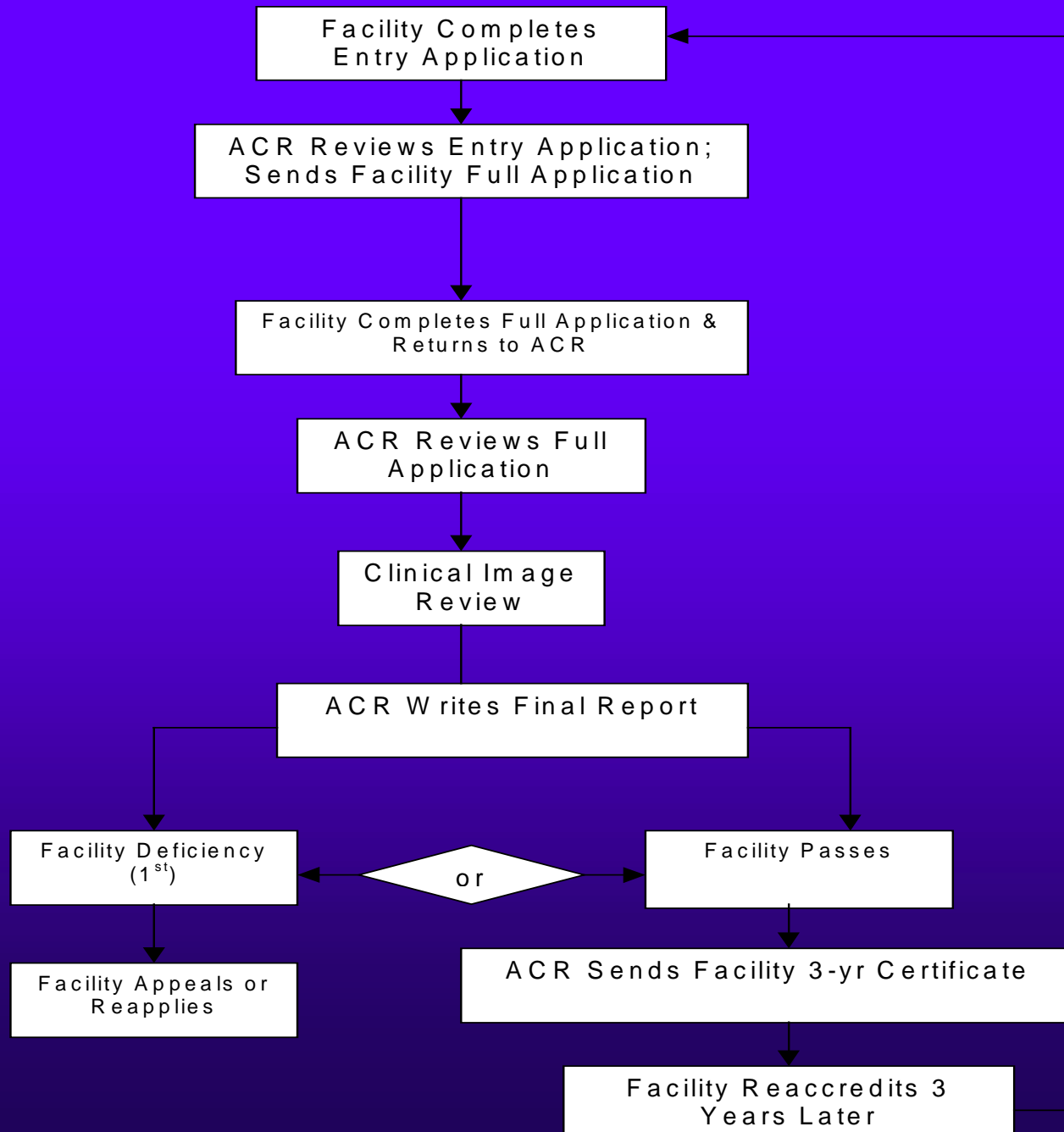
- 5) Program is valid and credible, reasonable
- 6) Provide a public benefit
- 7) Conflict of interest
- 8) Timely and cost effective - by mail



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

# ACR Ultrasound Accreditation Process







# US Accreditation Modules

- ◆ OB
- ◆ Gynecological
- ◆ General
- ◆ Vascular
- ◆ Facility should apply for all modalities performed



# New Additions

## VASCULAR

- ◆ Approved by ACR Council Steering Committee and implemented in early 1998
- ◆ ACR seeking recognition by HCFA and other third party payers

## GYNECOLOGICAL

- ◆ Implemented late fall 2000



# Third Party Payers

## ◆ OB

- Aetna USHealthcare
- CA Prenatal Diagnosis Centers
- CIGNA of CT
- Blue Cross of PA
- Intermountain Healthcare, UT
- New York Medical Imaging, PLLC
- PHS

# Medicare Carriers

## ◆ Vascular



- AdminiStar
- Cabaha Government Benefit Admin.
- Cigna
- HGS Administrators
- Palmetto Government Benefit Admin.
- National Heritage Ins. Co.
- Nationwide Insurance
- Blue Cross/Blue Shield of AR
- Blue Cross.Blue Shield of KS
- Empire Blue Cross/Blue Shield
- Trailblazers
- Trans Occidental
- Veritas of Western PA
- Wisconsin Physician Service (WPS)





# Interpreting Physician Criteria

- ◆ Practitioner with understanding and familiarity with:
  - Indications
  - Basic Principles
  - Limitations
  - Alternate and complimentary imaging procedures
  - Ability to correlate other imaging with ultrasound



# Interpreting Physician Criteria (cont.)

- ◆ Thorough understanding of:
  - ultrasound technology and instrumentation and
  - ultrasound power output
  - equipment calibration and safety



# Interpreting Physician Criteria (cont.)

- ◆ Demonstrate familiarity with:
  - Anatomy & Physiology
  - Pathophysiology
  
- ◆ Evidence of:
  - Training
  - Competence



# Interpreting Physician Criteria (cont.)

- ◆ The interpreting Physician must also meet at least one of the physician qualification criteria outlined in the Basic Requirements.





# Physician Criteria Continuing Qualifications

- ◆ Maintain competence by:
  - Regular performance and interpretation
  - Minimum of 300 exams recommended



# Physician CME

- ◆ Compliance with the ACR Standard on CME
  - 150 hours of CME every 3 years
- ◆ Should include ultrasound as appropriate for their practice



# Sonographer Criteria for General OB or Gyn Accreditation

- ◆ Must be ARDMS certified or eligible at time of application
- ◆ For renewal, all sonographers must be certified



# Sonographer Criteria for Vascular Accreditation

- ◆ Must have at least one sonographer who is RVT or RVS (previously RCVT) certified



# Quality Control Program

- ◆ Required as of January 1998
- ◆ Directed by medical physicist or supervising MD
- ◆ Minimum frequency - semi-annually
- ◆ Testing and corrective action must be documented
- ◆ Documentation will be reviewed if site survey done



## Quality Control Program (cont.)

- ◆ Initial testing - verify horizontal and vertical distance measurement
- ◆ Use any Ultrasound phantom
- ◆ Two probes for each scanner should be tested



## Quality Control Program (cont.)

- ◆ System sensitivity and/or penetration capability
- ◆ Image uniformity
- ◆ Photography and other hard copy recording
- ◆ Low contrast object detectability (optional)
- ◆ Assurance of electrical and mechanical safety



# Quality Control Manual

- ◆ Development began Fall 1999
- ◆ Analysis of data submitted on full application





# Full Application

- ◆ Collects practice data that will enable correlation between practice patterns and outcome on accreditation
- ◆ Documents that personnel meet criteria
- ◆ Demonstrates compliance with ACR US standards
- ◆ QC data



# OB Ultrasound Clinical Images

- ◆ 1 - First Trimester
- ◆ 2 - Second Trimester
- ◆ 1 - Third Trimester



# Gyn Ultrasound Clinical Images

- ◆ 1 Endovaginal Female Pelvis
- ◆ 3 Female Pelvis Endovaginal OR Transabdominal



# General Ultrasound Clinical Images

- ◆ Upper Abdominal - Complete (Required)
  - Showing all of the following anatomy
    - Liver
    - Gall Bladder and Biliary Duct
    - Pancreas
    - Spleen
    - Kidneys



# General Ultrasound Clinical Images (cont.)

◆ Plus choice of three from the following:

•Female Pelvis

•Small Parts

- Scrotum/Thyroid

•Retroperitoneal

•Transrectal Prostate

•Renal/Urinary Tract

•Pediatric Neurosonology



# Vascular Ultrasound Clinical Images

One normal and one abnormal exam from each of the categories performed at the facility

- ◆ Peripheral exams
- ◆ Cerebrovascular - carotid exam
- ◆ Abdominal vasculature exam
- ◆ Deep abdominal: Aorta or Inferior Vena Cava exam



# Clinical Image Key Points

- ◆ Submit complete exams with all images from same pt.
  - Exams must be from real pts. (not volunteers)
- ◆ Transparency; no electronic format
- ◆ Reviewer assumes images are an example of your best work
- ◆ Keep in mind reviewer does not have the benefit of real time



# Image Labeling and Written Report

- ◆ Patient name and identification number
- ◆ Examination date
- ◆ Name of facility/institution
- ◆ Clinical indication for examination



# Written Report

- ◆ Comply with ACR Standard for Communication, 1995





# OB, Gyn & General Key Points

- ◆ Exams interpreted as normal are required
- ◆ 1st trimester exam should include fetal pole and allow documentation of heart rate
- ◆ Include physician report
  - used to confirm data of exam
  - sonographer worksheet not acceptable



# Vascular Key Points

- ◆ One normal and one abnormal
- ◆ Diagnostic & physiologic criteria
  - Carotid should include velocity table
- ◆ Report of noninvasive pressure testing for arterial and carotid
- ◆ Abnormal exams should include a vascular abnormality



# Testing Materials - Due Date

- ◆ On bar-coded labels
- ◆ 60 days from date of application
  - extension must be requested in writing
- ◆ Images must be acquired no more than 120 days before due date



# Testing Materials Key Points

- ◆ Maintain copies of all images & patient names
- ◆ Send via Express mail, FEDX, etc.



# Repeat after Deficiency

- ◆ Submit only those exams that did not pass.

# Validation Cycles

- ◆ Random Film Check
- ◆ Random On-site Survey





# Random Film Checks

- ◆ ACR designates date for:
  - 1 Set of sonograms from each category of accreditation,
    - eg., OB, Gyn, General, Vascular



# Goals of On-site Survey

- ◆ 1) Education
- ◆ 2) Validation



# On-site Survey

- ◆ Radiologist Responsibilities
  - Team Leader
  - Evaluate clinical image quality
  - Consult with radiologist regarding clinical interpretation



# On-site Survey

- ◆ Physicist Responsibilities
  - Equipment verification
  - Review of semi-annual QC report and corrective action
  - Review & evaluate all QC logs




# On-site survey

- ◆ ACR Staff Verification
  - Application data
  - Personnel qualifications
  - Federal, state & local licensure/certification



# Charges

## First Ultrasound Site (Primary ultrasound site)



◆ OB US, only	\$1000
◆ Gynecological US, only	\$1000
◆ General US, only	\$1000
◆ Vascular, only	\$1000
◆ Combination of any two	\$1100
◆ Combination of any three	\$1200
◆ All	\$1300

# Charges

## Additional US Practice Sites (different addresses/locations)

- ◆ OB US, only \$900 each
- ◆ Gynecological US, only \$900 each
- ◆ General US, only \$900 each
- ◆ Vascular, only \$900 each
- ◆ Combination of any two \$1000 each
- ◆ Combination of any three \$1000 each
- ◆ All \$1200 each





# Statistics as of March 2001

- ◆ Number of applications 2265
- ◆ Number of Accredited Facilities 2095
- ◆ Deficiency Rates 19%  
(on first attempt)



# Breast Ultrasound Accreditation

- ◆ Added to Ultrasound-Guided Breast Biopsy Summer 2000
- ◆ Under direction of Peter J. Dempsey, M.D., Chair, Committee on Breast Ultrasound Accreditation





# Breast Ultrasound Accreditation (BUAP)

- ◆ Two types
  - Breast Ultrasound
  - Ultrasound guided breast biopsy
    - Mass only
    - FNAC only (not cyst aspiration)



# Breast Ultrasound Accreditation and MQSA

- ◆ MQSA only applies to mammography  
(x-ray imaging of the breast)
- ◆ Does not apply to ultrasound



# BUAP Physician Requirements

## Breast US

- ◆ Initial Qualifications
  - Same as Ultrasound Accreditation

## Breast Biopsy

- ◆ Initial Qualifications
  - 12 USGGB on patients, OR 3 hands on USGGB supervised by equal MD AND 3 Cat. 1 CME hrs. in USGGB procedures
  - Performance & interpretation of breast US



# BUAP Physicians Requirements

## Breast US

- ◆ Continuing Qualifications
  - 30 exams/year (recommended)

## Breast Biopsy

- ◆ Continuing Qualifications
  - 12 USGGBB/year
  - Regular performance and interpretation of breast US





# BUAP Physicians Requirements

## Breast US

- ◆ Continuing Education
  - ACR Standard on CME

## Breast Biopsy

- ◆ Continuing Education
  - 3 Cat. 1 CME in USGGBB/ 3 years; must include post-biopsy management



# BUAP Technologist Requirements

- ◆ ARDMS OR ARRT and MQSA qualified
- AND
- ◆ 5 hrs. CEU within one year of accreditation



# BUAP Key Points


- ◆ Transducers must be  $> 7\text{mHz}$
- ◆ QC Tests (Semi-Annual)
  - Penetration, uniformity, distance accuracy, anechoic void perception, ring down, lateral resolution, electrical and mechanical safety
- ◆ Sampling devices (Biopsy module)
  - Gun/needle
  - Vacuum assisted devices

# BUAP Clinical Images

- ◆ Evaluation based on image quality
- ◆ Lesion biopsy is same as seen on mammo or physical exam







# Outcome Data for Biopsy Module

- ◆ Number of procedures
- ◆ Number of cancers found
- ◆ Number of benign lesions
- ◆ Number of biopsies needing repeat
- ◆ Number of complications



# BUAP Charges

## Primary Ultrasound Site

- ◆ Breast US, only \$700
- ◆ Breast US & Breast Biopsy \$800

## Additional Ultrasound Sites

- ◆ Breast US, only \$600
- ◆ Breast US & Breast Biopsy \$700



# ACR Ultrasound Accreditation Key Resources

- ◆ ACR Standards
- ◆ Basic Requirements
- ◆ Evaluation Attributes Document
- ◆ ACR Staff

UAP 1-800-770-0145

BUAP 1-800-227-6440

[www.acr.org](http://www.acr.org)