Disclosure

- Intersocietal Commission for the Accreditation of Vascular Laboratories
  1995 – present  Member, Board of Directors
  2005-07        President

- Intersocietal Accreditation Commission
  2007 – present  Member, Board of Directors
  2007-10        Chairman
History of Vascular Lab Accreditation

- ICAVL first accreditation process
- ICAVL incorporated in November 1990
- Not for profit organization
- Voluntary Process
- Eight founding sponsors
Why ICAVL was created

- No standardization of techniques
- No standardized diagnostic criteria
- Lack of qualified personnel
- Lack of quality assurance
- Inappropriate testing
- Overuse, misuse, abuse
- Excessive costs to payers
- Threatened government intervention
Goals of Accreditation

- Develop standards for performance of quality noninvasive vascular testing
- Regularly revise standards to reflect current practice
- Peer review
- Voluntary
- Inclusive
- Educational
- Lab Recognition/Demonstration of Quality
History of Accreditation, cont’d.

ICAVL-Eight original sponsoring societies:
- Society of Vascular Technology
- Society of Diagnostic Medical Sonographers
- Society of Vascular Surgery
- International Society for Cardiovascular Surgery
- Society for Vascular Medicine and Biology
- American Institute of Ultrasound in Medicine
- American Society of Neuroimaging
- American College of Radiology
1996 - ACR withdraws from ICAVL to develop its own Vascular accreditation process
1997 - AIUM develops accreditation; vascular portion through ICAVL
Today - Vascular accreditation by ICAVL, ACR
Accreditation = Standardization

Standardize organization
Standardize performance
Standardize interpretation
Intent of Accreditation

- Lab recognition
- Demonstrate high quality services
  ◆ Patients
  ◆ Referring physicians
  ◆ Insurers
- Educational tool
  ◆ Use internally for quality improvement
American College of Radiology

- Accreditation in mammography, Radiation Oncology, MRI, Ob/Gyn, Ultrasound, Nuclear Medicine, PET, CT, Fluoroscopy
- Not interdisciplinary
1990 Vascular
1996 Echocardiography
1997 Nuclear Medicine
2000 Magnetic Resonance Imaging
2006 Computed Tomography
2008 Carotid Stenting Facilities
ICAVL
Current Sponsoring Societies

- Vascular Surgeons - SVS, SCVS
- Radiologists – AIUM, SIR, SRU
- Cardiologists – ACC, ASE
- Vascular Medicine – SVM
- Neurologists, Neurosurgeons – AAN/ASN/AANS
- Technologists – SVU, SDMS, ASE
ACR vs. ICAVL
Same/Almost Same

- Technical Director Certification requirements
- Protocols
- Diagnostic Criteria
- Equipment Maintenance
- Best work Case Studies
MD Interpretation/Report
- Misc Policies (Infection control, safety, adverse events, records retention, confidentiality, etc)
- Random Audits
- No quarterly deadlines
Differences - Testing Sections

**ICAVL (STANDARDS)**
- Extracranial Cerebrovascular
- Intracranial Cerebrovascular
- Peripheral Arterial
- Peripheral Venous
- Visceral
- Screening

**ACR (ULTRASOUND EVALUATION ATTRIBUTES)**
- Vascular Ultrasound Exams
  - Arterial
  - Venous
- Cerebrovascular Exams
  - Extracranial
- Abdominal Vascular Exams
  - Renal
- Deep Abdominal Vascular exams
  - Aorta
ICAVL

New Accreditation:
5 case studies for each testing area applied in (1 Normal, 4 Abnormal)

Re-accreditation:
3 Abnormal

ACR

2 from each testing area performed: Peripheral, Cerebrovascular, Abdominal, Deep Abdominal (1 Normal, 1 Abnormal)
## Differences - Other

<table>
<thead>
<tr>
<th></th>
<th>ICAVL</th>
<th>ACR</th>
</tr>
</thead>
<tbody>
<tr>
<td>MD CME</td>
<td></td>
<td>MD CME</td>
</tr>
<tr>
<td>Fees</td>
<td>$1200 base per Application Plus $200 per testing section</td>
<td>Fees</td>
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<tr>
<td></td>
<td>May apply only in desired testing sections</td>
<td>Vascular Only $1200</td>
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<tr>
<td>QA –</td>
<td>Correlation w/gold standard</td>
<td>QA – MD Peer Review</td>
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</tbody>
</table>
**Differences - Other**

<table>
<thead>
<tr>
<th>ICAVL</th>
<th>ACR</th>
</tr>
</thead>
<tbody>
<tr>
<td>One Step Process - Submit Application, fees, case studies at one time</td>
<td>Two step process - Submit Application and fees Select and submit cases within 45 days of notification from ACR</td>
</tr>
</tbody>
</table>
Laboratory Accreditation

- Standards for and assessment of:
  - Physicians
  - Technologists/sonographers
  - Equipment
  - Diagnostic criteria
  - Quality Control
  - Quality assurance
  - Review of actual work that a lab does
The Accreditation Process - the Lab

- Review the Evaluation Attributes
- Review case study requirements
  - Become familiar with required pathology, but don’t select case studies
- Submit application and fees to ACR
- When notified by ACR, select Case Studies and return to ACR within 45 days
ACR Evaluation Attributes

Personnel Qualifications
  MD’s
  Technologists
Quality Control
ACR Ultrasound Testing Sections

I. Obstetrics
II. Gynecology
III. General
IV. Vascular
  ▪ Extracranial Cerebrovascular
  ▪ Peripheral - Arterial or Venous
  ▪ Abdominal – Liver or Renal
  ▪ Deep Abdominal - Aorta and branches
Technical Standards

- Must be in compliance with the ACR Practice Guidelines and Technical Standards
Diagnostic Criteria

- Must be included for Vascular accreditation
Must be in compliance with the ACR Practice Guidelines for Communication: Diagnostic Radiology
QUALITY CONTROL WORKSHEET  UNIT#:  Performed By:  Date:

**PENETRATION (Required)**

With system sensitivity set up for visualizing echogenicity as deeply as possible, what is the maximum depth you can visualize the background echographic pattern? Mark the appropriate box.

<table>
<thead>
<tr>
<th>Transducer #1</th>
<th>Transducer #2</th>
</tr>
</thead>
<tbody>
<tr>
<td>o Less than 3 cm</td>
<td>o Less than 3 cm</td>
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</table>

**UNIFORMITY (Required)**

With gains set to obtain a uniform image, freeze the image. Complete the questions regarding the uniformity of the image by marking the appropriate box using this key:
1) Agree  2) Disagree, slight non uniformities present  3) Disagree, major non uniformities present

<table>
<thead>
<tr>
<th>Transducer #1</th>
<th>Transducer #2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) The average brightness at edge of the scan is the same as the average brightness in the middle. o1 o2 o3</td>
<td></td>
</tr>
<tr>
<td>2) There are no vertically or radially oriented shadows from array element dropout. o1 o2 o3</td>
<td></td>
</tr>
<tr>
<td>3) There are no brightness transitions between focal zones. o1 o2 o3</td>
<td></td>
</tr>
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<td></td>
</tr>
</tbody>
</table>

**ELECTRICAL AND MECHANICAL SAFETY AND CLEANLINESS (Required)**

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are all cords and cables intact (no frays)?</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>Are all transducers intact without crack or delamination?</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>Are the transducers cleaned after each use?</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>Are the image monitors clean?</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>Are the air filters clean?</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>Are the wheel locks in working condition?</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>Are the wheels fastened securely to the US unit and do the wheels rotate easily?</td>
<td>YES</td>
<td>NO</td>
</tr>
</tbody>
</table>
Quality Control

For each quality assurance task described, identify the frequency at which each task is performed and the individual responsible for the task performance. Code: F = radiologist, T = radiologic technician or sonographer, S = service engineer. Additionally, please submit a copy of your most recent physicist's or service engineer's report for each task.

<table>
<thead>
<tr>
<th>Frequency Routinely Performed</th>
<th>Not Done</th>
<th>Daily</th>
<th>Weekly</th>
<th>Monthly</th>
<th>Every 3 months</th>
<th>Every 6 months</th>
<th>Yearly</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Grey scale photography</td>
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<td>2. Hard copy output quality test (digital only)</td>
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<td>3. Electrical safety cleanliness</td>
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<td>4. Universal infection control procedure</td>
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<tr>
<td>5. System sensitivity and/or penetration capability</td>
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<tr>
<td>6. Uniformity</td>
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<tr>
<td>7. Maximal depth of visualization and hard copy recording with a phantom</td>
<td>[ ]</td>
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<tr>
<td>8. Low contrast object detectability</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
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</table>

Note: *Continuous quality control consists of performing the above tests at least SEMIMONTHLY. If tests are not done more frequently than once a year, please consult with your medical physicist to establish a continuous quality control program for your facility (refer to the Quality Control Section in the Ultrasound Accreditation Program Requirements).*

Personnel Information

1. For recertification, are all sonographers ARDMS (OB, AB, VT**), ARRT(S, V), or CDR(RV, DCVT) Sonography certified? Check one.
   - [ ] 1 No
   - [ ] 2 Yes
   - [ ] 3 Not applicable

   *(If you checked “No”, please submit status for all technologists who are not ARDMS or ARRT sonography certified)*

<table>
<thead>
<tr>
<th>Name</th>
<th>Graduation Date</th>
<th>Scheduled Exam Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>__________________</td>
<td>__________________</td>
</tr>
<tr>
<td>2</td>
<td>__________________</td>
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</tr>
</tbody>
</table>

2. If you are applying for vascular accreditation, do you have at least one vascular technologist RVT, RT(VS) or RVTS certified? Check one.
   - [ ] 1 No
   - [ ] 2 Yes
   - [ ] 3 Not applicable

*Breach (BR) credential earned after June 30, 2010 will not be accepted.*
Quality Assurance - Physician Peer Review Program

- Double reading (2 MDs interpreting the same study) assessment
- Random selection of studies
- Classification of peer review findings with regard to level of quality concerns
- Policies and procedures for action to be taken on significant discrepant peer review findings
- Summary statistics and comparisons generated for each physician by imaging modality
- Summary data for each facility/practice by modality

Sites may develop their own peer review program, use a vendor product or RADPEER, a peer review process developed by the ACR.
Case Studies

- Must be **BEST WORK**
- Must be dated between 2 months before to 45 days after date of application processing by ACR
- Include final reports
- Diagnostic physiologic and anatomic criteria for interpretation in each area being reviewed must be submitted with vascular exams
- Include normal and abnormal cases
Accreditation granted: Accreditation is valid for 3 years. Final Report issued by ACR detailing findings

Accreditation deficiency: option to appeal, withdraw, or submit request for repeat testing within 15 days of receiving Final Report. ACR sends repeat testing materials to lab which must complete and return within 30 days

Accreditation Failed
Random Audits / Site Visits

- Randomly selected
- May happen at any time during the course of the laboratory’s accreditation
- May do mail-in film checks
- Site visits unannounced
- Required by CMS
Ultimately...Why Go Through This?

- Commitment to quality patient care
- Demonstrate expertise to patients, referring physicians, community
- Competitive Advantage
- Attract high quality technologists
- ...and
FIRST REGULAR SESSION

3. By July 1, 2012, each hospital shall participate and be prepared to process for accreditation by ICAVL or ACR. Each laboratory shall participate in and be prepared to meet a standard in addition to any combination of other standards required by the laboratory or the ultrasound program relating to the ultrasound program relating to the ultrasound program relating to the ultrasound program.

4. By October 1, 2012, each hospital shall provide documentation to the department confirming accreditation or loss of accreditation. Any laboratory that fails to become accredited or loses accreditation shall not charge, bill, or be compensated for any services provided by such laboratory after such failure to obtain or loss of accreditation.

Be it enacted by the General Assembly of the state of Missouri, as follows:
American College of Radiology

- Number of accredited vascular labs in US
  Approximately 1600
Contact the ACR

- 1891 Preston White Drive
- Reston, VA 2019
- Phone: 703-648-8900

- [www.acr.org](http://www.acr.org)
Science tells us what we can do

Standards tell us what we should do

Accreditation tells us what we actually do
Thank You

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Greensboro, NC  27406

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