

Building a Vascular Laboratory

CLINICAL APPROACH TO VASCULAR ULTRASOUND &
RPVI PREP COURSE

JUNE 4-5, 2021

DRENA ROOT, BS RVT

TECHNICAL DIRECTOR MGH FIREMAN VASCULAR
CENTER



Building a Vascular Lab

- ▶ Physical Space
- ▶ Equipment
- ▶ Protocols
- ▶ Structured Reporting
- ▶ Image Storage
- ▶ Personnel
- ▶ Record Keeping
- ▶ Quality Control
- ▶ Accreditation
- ▶ Maintenance



Physical Space

- ▶ Hallway and door spacing
- ▶ Size of exam rooms
- ▶ Design of the space
- ▶ Lighting
- ▶ Amenities

Hallway and door spacing



Size of Exam Room



MASSACHUSETTS
GENERAL HOSPITAL
FIREMAN VASCULAR CENTER

Size of Exam Room



MASSACHUSETTS
GENERAL HOSPITAL
FIREMAN VASCULAR CENTER

Space Design



No Windows
In exam and reading rooms

Space Design



Space Design



Space Design



Equipment



Source: ADA.gov

Equipment



Equipment



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Equipment

- ▶ Calibrated
- ▶ Accommodate 300lbs
- ▶ Variable handle placements



Protocols

▶ The Hallmarks

- ▶ Extracranial Cerebrovascular Duplex
- ▶ Lower Extremity Venous Duplex
- ▶ Lower Extremity Arterial Physiologic Exam
- ▶ Lower Extremity Arterial Duplex

Protocols

▶ Frequently Used

- ▶ Renal Artery Duplex
- ▶ Lower Extremity Venous Reflux Duplex
- ▶ Abdominal Aorta / IVC Duplex
- ▶ Upper Extremity Arterial Physiologic Exam
- ▶ Upper Extremity Venous Duplex
- ▶ Transcranial Doppler (Imaging or non-imaging)
- ▶ Bypass Graft / Stent Duplex

Protocols

- ▶ Occasionally Used
 - ▶ Mesenteric Artery/Vein Duplex
 - ▶ Arterial Duplex for Aneurysm/Pseudoaneurysm
 - ▶ Hemodialysis Fistula Duplex
 - ▶ Palmar Arch Testing
 - ▶ Raynaud's and Thoracic Outlet Testing
 - ▶ Vasomotor Reactivity Testing

Protocols

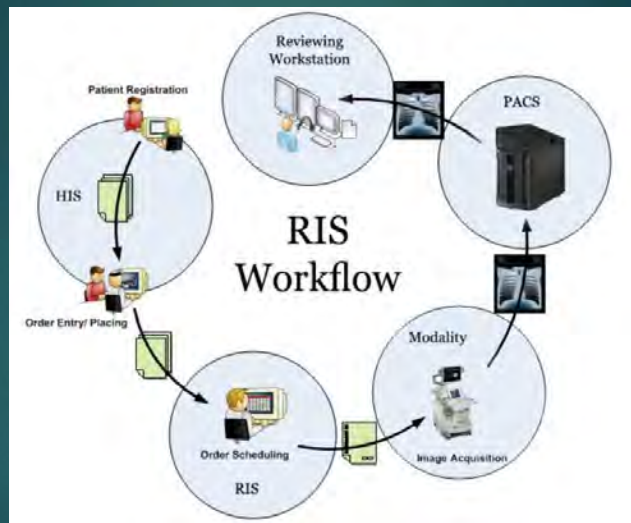
Resources



Source: www.intersocietal.org

Structured Reporting

Image Storage



Personnel

- ▶ Medical Director
 - ▶ Licensed MD or DO
 - ▶ Must meet one or more levels of training/experience
 - ▶ Physician Credential for Vascular Interpretation (RPVI or ASN)
 - ▶ Formal Training
 - ▶ Informal Training
 - ▶ Established Practice

Personnel

- ▶ Technical Director
 - ▶ Credentialed in appropriate area of vascular testing
 - ▶ Appropriate level of training meeting minimum testing volume standards in each area

Personnel

▶ Technical Staff

- ▶ Credentialed in appropriate level of training – meeting minimum testing volume standards
- ▶ Provisional – new graduate from an established program who must obtain credential within one year from date of graduation

Record Keeping

GOAL



ACCREDITATION

Record Keeping

- ▶ Volume Requirements (in each testing area)
 - ▶ Extracranial Cerebrovascular Testing – 100
 - ▶ Intracranial Cerebrovascular Testing – 100
 - ▶ Peripheral Arterial Testing – 100
 - ▶ Peripheral Venous Testing – 100
 - ▶ Visceral Vascular Testing – 100

Practice can choose which areas of testing in which to obtain accreditation

Record Keeping

	A	B	C	D	E	F	G	H
1	Patient Name	MRN	Ultrasound Results	CTA Results	MRA/MRI Results	Angiogram	Op Report	Correlation
2								
3								
4								
5								
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25								

Record Keeping

- ▶ **Quality Assurance Meetings**
 - ▶ All staff may participate in validation of interpretation criteria
 - ▶ Two staff QA meetings per year (minimum)
 - ▶ Engage staff in "interesting cases" huddles
 - ▶ IAC website - many resources for staff meetings and sample templates for recording meeting minutes
 - ▶ CME's – all staff must meet minimum requirements

IAC Accreditation

...One Year Later
You're ready to begin the ...

IAC Accreditation Application!

IAC Application



Link: www.Intersocietal.org



Vascular Testing



Web-based



Step-by-step application process



Two-month completion time (estimated)



Three-month waiting period for decision on the granting of accreditation

IAC Accreditation



CONGRATULATIONS!



ACCREDITATION
GRANTED



...FOR 3 YEARS

Maintenance



Protocols



Continue to review



IAC changes/modifies
the requirements for
the standards yearly

Maintenance

Quality Assurance

Continue to review ultrasound
exams as compared to the "gold
standards"

Interpretation criteria may need
tweaking

(make sure any changes are
scientifically based)

Maintenance



Quality Assurance



Semi-annual meetings with staff to maintain quality within the vascular lab

Maintenance



Continuing Medical Education Credits



Each staff member (medical and technological) must maintain a required number of CME's



Conferences, local meetings, webinars, journal articles, etc.

Thank
You !

Best of Luck



Building Your
Vascular Lab