

Vascular Ultrasound Resident Rotation

Goals:

1. Be in the UAMS Vascular Lab from 8:00AM to 4:30PM, except for 1:00 PM conference.

Examinations to observe:

Venous duplex exams, lower and upper extremity
Carotid duplex exams
Extremity arterial duplex
Physiologic arterial exams (Segmental Pressures, Ankle-Arm Indices, Toe pressures, Treadmill testing)

2. Keep a record of the examinations you observe and interpret.
3. Review the vascular ultrasounds from the outside hospitals each day (Arkansas Heart Hospital and Ouachita County Medical Center.) Correlate your interpretation with staff's reading. Choose a "down time" in the vascular lab. This may take 1-2 hours, make use of the "down time" in the vascular lab.
4. Attend Vascular Conference every week, currently this takes place in the radiology conference room Tuesdays, 4:00PM – 5:00PM.
5. Reading assignments: assigned chapters in Zeibel, Vascular Ultrasound and Physiologic testing and techniques. (Book will be loaned to you for the month)

1. Introduction to Vascular Ultrasound 4th Edition, William Zwiebel, M.D., W.B. Saunders Co. 2000

Chapter 2 Physics and Instrumentation in Doppler and B-Mode
Ultrasonography

Chapter 3 Doppler Frequency Spectrum Analysis

Chapter 4 Color-Flow Imaging for Vascular Diagnosis

Chapter 8 Normal Carotid Arteries and Carotid Examination Technique

Chapter 10 Doppler Evaluation of Carotid Stenosis

Chapter 11 Misc. Carotid Subjects:

Chapter 12 Ultrasound of Vertebral Examination

Chapter 15 Arterial Anatomy of the Extremities

Chapter 16 Non-Imaging Physiologic Tests for Assessment of LE
Arterial Dz

Chapter 17 Assessment of Upper Extremity Arteries

Chapter 18 Duplex Sonography of Lower Extremity Arteries

Chapter 19 Rationale for Duplex Ultrasound Assessment of Extremity
Veins

Chapter 20 Extremity Venous Anatomy

Chapter 21 Terminology, Instrumentation, and Characteristics of
normal veins

Chapter 22 Extremity Venous Examination: Technical Considerations

Chapter 24 Definitive Diagnosis and documentation of chronic venous dysfunction

Robert Scissions, RVT (Unetixs, Inc.) book will be loaned to you

- 1) Understand the physics and instrumentation needed to perform vascular US examinations
- 2) Be able to supervise vascular ultrasound exams performed by a technologist
- 3) Be able to recognize a technically adequate exam
- 4) Interpret the following vascular ultrasound exams:
 - a) upper and lower extremity venous duplex exam
 - b) carotid duplex exams
 - c) upper and lower extremity arterial duplex exams
 - d) physiologic arterial exams

- Venous duplex exams, lower and upper extremity
- Carotid duplex exams
- Extremity arterial duplex
- Physiologic arterial exams (Segmental Pressures, Ankle-Arm Indices, Toe pressures, Treadmill testing)

1. Introduction to Vascular Ultrasound 4th Edition, William

Zwiebel, M.D., W.B. Saunders Co. 2000

Chapter 2 Physics and Instrumentation in Doppler and B-Mode
 Ultrasonography
Chapter 3 Doppler Frequency Spectrum Analysis
Chapter 4 Color-Flow Imaging for Vascular Diagnosis
Chapter 8 Normal Carotid Arteries and Carotid Examination Technique
Chapter 10 Doppler Evaluation of Carotid Stenosis
Chapter 11 Misc. Carotid Subjects:
Chapter 12 Ultrasound of Vertebral Examination
Chapter 15 Arterial Anatomy of the Extremities
Chapter 16 Non-Imaging Physiologic Tests for Assessment of LE
 Arterial Dz
Chapter 17 Assessment of Upper Extremity Arteries
Chapter 18 Duplex Sonography of Lower Extremity Arteries
Chapter 19 Rationale for Duplex Ultrasound Assessment of Extremity
 Veins
Chapter 20 Extremity Venous Anatomy
Chapter 21 Terminology, Instrumentation, and Characteristics of
 normal veins
Chapter 22 Extremity Venous Examination: Technical Considerations
Chapter 23 Venous Thrombosis
Chapter 24 Definitive Diagnosis and documentation of chronic venous
 dysfunction

2. Physiological Testing: Techniques and Interpretation

Robert Scissions, RVT (Unetixs, Inc.) book will be loaned to you

Objectives: At the end of the rotation, the resident will:

- 5) Understand the physics and instrumentation needed to perform vascular US examinations
- 6) Be able to supervise vascular ultrasound exams performed by a technologist
- 7) Be able to recognize a technically adequate exam
- 8) Interpret the following vascular ultrasound exams:
 - e) upper and lower extremity venous duplex exam
 - f) carotid duplex exams
 - g) upper and lower extremity arterial duplex exams
 - h) physiologic arterial exams

Vascular Ultrasound Rotation
Post Review
Accomplishments:

Name _____
Rotation dates _____
Date _____

1. UAMS Vascular Lab from 8:00AM to 4:30PM, except for 1:00 PM conference.
Examinations to observe:
 - Venous duplex exams, lower and upper extremity
 - Carotid duplex exams
 - Extremity arterial duplex
 - Physiologic arterial exams (Segmental Pressures, Ankle-Arm Indices, Toe pressures, Treadmill testing)
2. According to the log you kept, how many of the examinations you observe and interpret.
3. Review the vascular ultrasounds from the outside hospitals each day (Arkansas Heart Hospital and Ouachita County Medical Center.) Correlate your interpretation with staff's reading. Choose a "down time" in the vascular lab. This may take 1-2 hours, make use of the "down time" in the vascular lab.
4. Attend Vascular Conference every week, currently this takes place in the radiology conference room Tuesdays, 4:00PM – 5:00PM.
5. Reading assignments: assigned chapters in Zeibel, Vascular Ultrasound and Physiologic testing and techniques. (Book will be loaned to you for the month)
 - 1. Introduction to Vascular Ultrasound 4th Edition, William Zwiebel, M.D., W.B. Saunders Co. 2000**
 - Chapter 2 Physics and Instrumentation in Doppler and B-Mode
Ultrasonography
 - Chapter 3 Doppler Frequency Spectrum Analysis
 - Chapter 4 Color-Flow Imaging for Vascular Diagnosis
 - Chapter 8 Normal Carotid Arteries and Carotid Examination Technique
 - Chapter 10 Doppler Evaluation of Carotid Stenosis
 - Chapter 11 Misc. Carotid Subjects:
 - Chapter 12 Ultrasound of Vertebral Examination
 - Chapter 15 Arterial Anatomy of the Extremities
 - Chapter 16 Non-Imaging Physiologic Tests for Assessment of LE Arterial Dz
 - Chapter 17 Assessment of Upper Extremity Arteries
 - Chapter 18 Duplex Sonography of Lower Extremity Arteries
 - Chapter 19 Rationale for Duplex Ultrasound Assessment of Extremity Veins
 - Chapter 20 Extremity Venous Anatomy
 - Chapter 21 Terminology, Instrumentation, and Characteristics of normal veins
 - Chapter 22 Extremity Venous Examination: Technical Considerations
 - Chapter 23 Venous Thrombosis
 - Chapter 24 Definitive Diagnosis and documentation of chronic venous Dysfunction
 - 2. Physiological Testing: Techniques and Interpretation**
Robert Scissions, RVT (Unetixs, Inc.) book will be loaned to you

PLEASE RATE THE FOLLOWING (10 Best ----- 1 Worst)

1. Did you learn the physics and instrumentation used in vascular US?

1 2 3 4 5 6 7 8 9 10

2. Did you learn the indications for performing vascular US exams?

Yes No

3. Are you able to supervise vascular US exams performed by a technologist?

Yes No

4. Did you gain sufficient experience to independently interpret the following exams:

a) upper and lower extremity venous Doppler

1 2 3 4 5 6 7 8 9 10

b) carotid duplex

1 2 3 4 5 6 7 8 9 10

c) upper and lower extremity arterial duplex

1 2 3 4 5 6 7 8 9 10

d) physiologic arterial exams

1 2 3 4 5 6 7 8 9 10
1 2 3 4 5 6 7 8 9