



Ultrasound-Guided Vascular Access & Nerve Blocks for Emergency Medicine Applications

March 18 – 19, 2024

[This course includes a Pre-Course Online Video: Imaging Fundamentals – The Basics by Lori Green, BA, RDMS, RDCS, RVT.](#) Login to your GCUS.com account and navigate to “My Activities” to complete this **prior** to this course.

Monday, March 18, 2024 – Ultrasound-Guided Vascular Access		
7:45	Welcome and Continental Breakfast	
8:00	Interactive Polling Session	
8:10	The Fundamentals of UG Vascular Access <ul style="list-style-type: none">• Why use Ultrasound Guidance• “In-plane” vs. “Out-of-plane” Techniques• Principles of Vessel Differentiation & Procedural Tips	Andreas Dewitz, MD, RDMS, FACEP
9:20	Break	
9:30	Ultrasound Guided Central Line Placement <ul style="list-style-type: none">• Internal Jugular & Axillary/Subclavian Approach & Clinical Case Review• Femoral Vein Access	
10:35	Break	
10:45	Ultrasound Guided Peripheral Line Placement <ul style="list-style-type: none">• Antecubital Vein Access• PICC Lines/Midlines• Additional Access Sites & Comments on the Pediatric Patient• Clinical Cases	
12:00	Interactive Polling Session with Discussion & QA	
12:15	Lunch	
1:15	Hands-On Scanning: Vascular Anatomy on Live Models & Vascular Access Phantoms	
4:30	Adjourn	



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Tuesday, March 19, 2024 – Ultrasound-Guided Nerve Blocks in Emergency Medicine		
7:30	Welcome and Continental Breakfast	
7:45	Interactive Polling Session	
8:00	Overview, Indications & Applications for US-Guided Nerve Blocks <ul style="list-style-type: none">Types & Anatomic TerritoriesNerves on UltrasoundLocal Anesthetic Agent ChoicesNeedles & SuppliesProcedural Pointers	Andreas Dewitz, MD, RDMS, FACEP
8:45	Ultrasound-Guided Nerve Blocks: Upper Extremity <ul style="list-style-type: none">Interscalene Brachial PlexusSupraclavicular Brachial PlexusInfraclavicular Brachial PlexusAxillary Brachial Plexus & MusculocutaneousHand: Median, Ulnar, RadialForearm NervesSuperficial Cervical PlexusGreater Auricular Nerve	Andreas Dewitz, MD, RDMS, FACEP
9:50	Break	
10:00	Upper Extremity Case Studies	Charlotte Derr, MD, RDMS, FACEP, FPD-AEMUS
10:30	Ultrasound-Guided Nerve Blocks: Lower Extremity <ul style="list-style-type: none">Femoral NerveFascia Iliaca CompartmentSaphenous NerveSciatic NervePopliteal Sciatic NerveFoot & Ankle Nerves	Andreas Dewitz, MD, RDMS, FACEP
11:30	Truncal & Miscellaneous Blocks <ul style="list-style-type: none">TAPPEC I, Pec II and Serratus AnteriorErector Spinae & IntercostalOthers: Greater Occipital, Dorsal Penile, & Lipoma Plane	Andreas Dewitz, MD, RDMS, FACEP
12:00	Lower Extremity Case Studies	Charlotte Derr, MD, RDMS, FACEP, FPD-AEMUS
12:20	Billing and Coding	
12:35	Interactive Polling Session with QA & Discussion	
12:45	Lunch	
1:30	Hands-On Scanning	
4:30	Adjourn	

** This is a tentative course itinerary. Lecture faculty, times and dates may be subject to change. Times listed are Eastern Time (ET).



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Ultrasound-Guided Vascular Access

The Gulfoast Ultrasound Institute is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

The Gulfoast Ultrasound Institute designates this live educational activity for a maximum of 8.0 *AMA PRA Category 1 Credits™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

The Gulfoast Ultrasound Institute designates an additional 1.25 *AMA PRA Category 1 Credits™* for the enduring educational activity "Ultrasound Imaging Fundamentals – The Basics". Physicians should claim only credit commensurate with the extent of their participation in the educational activity.

Successful completion of this CME activity, which includes participation in the evaluation component, enables the participant to earn up to 8.0 Medical Knowledge MOC points in the American Board of Internal Medicine's (ABIM) Maintenance of Certification (MOC) program. It is the CME activity provider's responsibility to submit participant completion information to ACCME for the purpose of granting ABIM MOC credit.

Approved by the American College of Emergency Physicians for a maximum of 8.0 hour(s) of ACEP Category I credit.

This course also meets CME / CEU requirements for ARDMS. Note: While offering the CME credit hours noted above, activities are not intended to provide extensive training or certification for exam performance or interpretation.

Ultrasound-Guided Nerve Blocks for Emergency Medicine Applications

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The Gulfoast Ultrasound Institute designates this live educational activity for a maximum of 8.0 *AMA PRA Category 1 credit™*. Physicians should claim only the credit commensurate with the extent of their participation in the educational activity.

Approved by the American College of Emergency Physicians for a maximum of 8.0 hour(s) of ACEP Category I credit.

This course also meets CME / CEU requirements for ARDMS. Note: While offering the CME credit hours noted above, activities are not intended to provide extensive training or certification for exam performance or interpretation.



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NEEDS STATEMENT:

The planning committee has determined a need for the following educational activity based on request from the medical community, expanded utilization of ultrasound, and lab accreditation requirements.

COURSE OBJECTIVES:

At the completion of the program, the participant should be able to:

1. State the relationship of transducer frequency to resolution, penetration and attenuation
2. List different types of transducers and their selection for different applications
3. Recognize commonly seen imaging artifacts.
4. Demonstrate the participant's knowledge to better perform ultrasound-guided vascular access procedures
5. Demonstrate competence to incorporate protocols, scan techniques, and interpretation criteria to improve diagnostic/treatment accuracy
6. Demonstrate proper transducer manipulation and system optimization to produce diagnostic images and the use of ultrasound guidance for central and peripheral line access
7. List the advantages and disadvantages of the "In-Plane" and "Out-of-Plane" ultrasound-guided vascular access techniques
8. Differentiate venous vs. arterial anatomy by ultrasound
9. Identify ultrasound imaging characteristics of vessels and contiguous anatomy to determine the optimal approach for vascular access
10. Describe ultrasound imaging characteristics of vascular pathology that would indicate a vessel is not suitable for vascular access
11. Increase the participants' knowledge and competence to perform ultrasound-guided nerve blocks for emergency medicine applications.
12. List the advantages of using ultrasound-guided nerve block techniques.
13. Demonstrate imaging techniques for performing ultrasound-guided upper extremity, lower extremity, truncal, and miscellaneous nerve blocks.
14. Increase confidence to incorporate protocols, scan techniques, and interpretation criteria to integrate the skills learned into clinical practice.

While offering CME credit hours this activity is not intended to provide extensive training or certification for performance of ultrasound-guided vascular access and ultrasound-guided emergency medicine nerve block procedures. We recommend working under supervised conditions until an acceptable level of proficiency has been achieved

A special thanks to the following ultrasound equipment manufacturers who provide various (in kind) equipment support to help make our programs possible (companies listed are as of the time of printing).



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Disclosure of Relevant Financial Relationships With Commercial Companies/Organizations

Gulfcost Ultrasound Institute, Inc. endorses the standards and essentials of the Accreditation Council for Continuing Medical Education for activities and the speakers at these activities disclose significant relationships with commercial companies.

Speakers having relevant relationships include receiving from a commercial company research grants, consultancies, honoraria and travel, or having a self-managed equity interest in a company.

FACULTY:

Charlotte Derr, MD, RDMS, FACEP, FPD-AEMUS

Associate Professor of Emergency Medicine
Fellowship Director of Advanced Emergency Medicine Ultrasound Fellowship Program
University of South Florida Morsani College of Medicine
Tampa, FL

No relevant financial relationships to disclose

Andreas Dewitz, MD, RDMS, FACEP

Clinical Professor of Emergency Medicine
Clinical Director, POCUS Education: Solomont Simulation Center
Department of Emergency Medicine
Boston Medical Center
Boston, MA

No relevant financial relationships to disclose

All presentations for this CME activity were reviewed and approved by member(s) of the GUI staff to determine content validity and ensure that no conflicts of interest exist prior to final course material compilation and printing.



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Disclosure of Individuals in Control of Content

In addition to the faculty listed on the previous page the following individuals are recognized by GUI as being in control of content of this program:

James Mateer, MD, RDMS (Medical Director-planner & QI Task Force)

Medical Director, Gulfoast Ultrasound Institute
Milwaukee, WI

No relevant financial relationships to disclose

Charlotte Derr, MD, RDMS, FACEP, FPD-AEMUS (Co-Medical Director-planner & QI Task Force)

Associate Professor of Emergency Medicine
Fellowship Director of Advanced Emergency Medicine Ultrasound Fellowship Program
University of South Florida Morsani College of Medicine
Tampa, FL

No relevant financial relationships to disclose

Andreas Dewitz, MD, RDMS (Member of Advisory Board & QI Task Force Subcommittee)

Clinical Professor of Emergency Medicine
Clinical Director of POCUS Education, Solomont Simulation Center
Department of Emergency Medicine
Boston Medical Center
Boston, MA

No relevant financial relationships to disclose

Lori Green, BA, RDMS, RDCS, RVT (Program Director-planner, Content Reviewer, QI Task Force)

Gulfoast Ultrasound Institute, Inc.
St. Petersburg, FL

No relevant financial relationships to disclose

Trisha Reo, AAS, RDMS, RVT (Program Coordinator-planner, Content Reviewer, QI Task Force)

Gulfoast Ultrasound Institute, Inc.
St. Petersburg, FL

No relevant financial relationships to disclose

HANDS-ON INSTRUCTORS:

At the time of printing **all hands-on instructors for this program have signed disclosure forms and have no relevant financial relationships to disclose.** A verbal disclosure will be made during opening remarks. All scanning sessions are monitored by the program director and/or the program manager to ensure education objectives are met and no commercial bias occurs.

Content:

All content for this CME activity were reviewed and approved by member(s) of the GUI staff to determine content validity and ensure that no conflicts of interest exist prior to final course material compilation and printing.

Reviewed & approved:

Lori Green BA, RDMS, RDCS, RVT

Trisha Reo AAS, RDMS, RVT



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Welcome!!

The entire staff at Gulfoast Ultrasound Institute would like to welcome you to our educational facility.

Our goal is to provide the highest quality continuing education possible in a relaxed and personal atmosphere. The content of each program has been carefully planned to provide you with the information needed to obtain a firm foundation to begin gaining the experience to perform and/or interpret ultrasound examinations in the specialty of your choice. The program will be structured with lectures in the morning and hands-on sessions during the afternoon to allow more individualized attention the program participants will be divided into groups for the hands-on workshops based on your experience level and type of equipment you work with.

To help you get the most out of this program we would like to make the following recommendations:

1. Attend the lectures and scheduled hands-on sessions.
2. When you are not involved in a scheduled afternoon session, take advantage of the SUPPLEMENTAL SCANNING WORKSHOP, or check out a video tape from our library to watch on one of the review stations located in the break room.
3. If you do not understand a particular concept, ASK FOR HELP!
4. Study your course workbook during the evening.
5. Remember excellence is not achieved overnight. Becoming proficient in any ultrasound specialty requires the commitment to continually study and perform multiple (at least 100) exams before an initial level of confidence is achieved. The AIUM guidelines suggest competency for interpretation requires a minimum of 500 exams per specialty.
6. Begin scanning immediately upon return to the ultrasound departments even if it's on a volunteer. We recommend scanning/interpretations under supervised conditions until an accepted level of proficiency has been obtained.

All of our instructors, guest speakers and office staff are here to serve you! If you have any questions of any kind, please do not hesitate to ask.



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Gulfcost Ultrasound Institute **EQUIPMENT RECOMMENDATIONS**

Since 1985, Gulfcost Ultrasound Institute has taken great pride in our ability to provide quality continuing education programs while remaining unbiased regarding the recommendation of ultrasound equipment.

Our programs are supported by most of the major equipment manufactures by providing their systems for use during the hands-on sessions. These companies have learned their products will be used and demonstrated to the best of our abilities in an educational setting and that no selling or promotion is done on our premises.

We realize that some of the course participants may currently be in the process of evaluating equipment for purchase and would like the opinions of our staff to determine the “best” system for your department. Everyone has a “favorite” ultrasound system (usually because it is the one, they have worked with the most and are comfortable with) however, Gulfcost Ultrasound must take an unbiased position in regard to equipment recommendations.

If you are currently evaluating equipment for purchase, we suggest you invite the equipment manufacturers to your facility for a private demonstration to determine image quality, ease of use, over-all capabilities etc. on an individual basis.

Thank you!

Lori Green BA, RDMS, RDCS, RVT

Lori Green, BA, RDMS, RDCS, RVT
Program Director