



Introduction and Advanced Emergency Medicine & Critical Care Ultrasound

September 11 – 15, 2023

Monday, September 11, 2023

| | | |
|-------|---|---------------------------------|
| 7:30 | Welcome and Continental Breakfast | |
| 7:45 | Interactive Polling Session | |
| 8:00 | Imaging Fundamentals | Lori Green, BA, RDMS, RDCS, RVT |
| 8:45 | Break | |
| 8:55 | OB-GYN Anatomy/Exam | James Mateer, MD, RDMS |
| 9:45 | Break | |
| 9:55 | Ectopic Pregnancy | James Mateer, MD, RDMS |
| 10:40 | Break | |
| 10:50 | OB Cases + Abortion | James Mateer, MD, RDMS |
| 11:50 | Break | |
| 11:55 | Fundamentals of Needle Guidance | James Mateer, MD, RDMS |
| 12:30 | Lunch | |
| 12:45 | Optional Video Lecture: PID & Masses | James Mateer, MD, RDMS |
| 1:30 | Hands-On Scanning: GYN, System Optimization, & Needle Guidance (phantoms) | |
| 5:00 | Adjourn | |

Tuesday, September 12, 2023

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|-------------|--|----------------------------|
| 7:20 | Continental Breakfast | |
| 7:30 | Interactive Polling Session | |
| 7:45 | Ultrasound-Guided Central Vascular Access | David Bahner, MD, FACEP |
| 8:45 | Break | |
| 9:00 | Abdominal Scanning Fundamentals | Trisha Reo, AAS, RDMS, RVT |
| 10:00 | Break | |
| 10:05 | FAST + e-fast | David Bahner, MD, FACEP |
| 11:05 | Break | |
| 11:15 | Focused 2D Cardiac Exam (F.A.T.E.) | James Mateer, MD, RDMS |
| 12:15 | Lunch | |
| 12:30 | Optional Video Lecture: Abscess & Joint Aspiration | James Mateer, MD, RDMS |
| 1:30 | Hands-On Scanning: E-FAST, Syst Optimization, Focused Cardiac & UGVA | |
| 5:00 | Adjourn | |
| 5:00 – 6:30 | Join us for our Welcome Reception & Vendor Event | |

Wednesday, September 13, 2023

| | | |
|-------|---|---|
| 7:30 | Continental Breakfast | |
| 7:45 | Biliary & Renal Colic | Andrew Laudenschach, MD |
| 8:30 | AAA & Case Studies | James Mateer, MD, RDMS |
| 9:00 | Break | |
| 9:05 | Evaluation of DVT | David Bahner, MD, FACEP |
| 9:40 | Evaluation of Cardiac Arrest, Shock & Hypotension | |
| 10:40 | Break | |
| 10:50 | Ultrasound-Guided Procedures: Pericardiocentesis, Paracentesis, Hemothorax, Lumbar Puncture | Alexander Levitov, MD, RDCS, FCCM, FCCP |
| 11:45 | Interactive Polling Session with discussion | |
| 12:00 | Lunch | |
| 12:45 | Optional Lecture: Training & Credentialing | All Faculty |
| 1:30 | Hands-On Scanning: Abd/FAST, Focused Cardiac, DVT & Procedures | |
| 5:00 | Adjourn | |



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| Thursday, September 14, 2023 | | |
|------------------------------|---|---|
| 7:25 | Welcome and Continental Breakfast | |
| 7:35 | Interactive Polling Session | |
| 7:50 | Advanced Ultrasound Evaluation of Shock | Andrew Laudenbach, MD |
| 8:50 | ABC's: Sonography in Source of Sepsis <ul style="list-style-type: none"> - Gallbladder & Biliary Tree - Appendix - Bowel Obstruction - Peritonitis & Abscess - Pyelonephritis - Pneumonia | James Mateer, MD, RDMS |
| 9:40 | Break | |
| 9:50 | Fluid Responsiveness in the Critically Ill & VExUS | Alexander Levitov, MD, FCCM, FCCP, RDCS |
| 10:50 | Break | |
| 11:00 | Ultrasound Guided Peripheral Vascular Access: Challenges, Pitfalls/Tips & Tricks | Charlotte Derr, MD, RDMS, FACEP |
| 12:00 | Lunch | |
| 12:15 | Optional Video Lecture: Color Doppler Ultrasound: The Fundamentals | Lori Green, BA, RDMS, RDCS, RVT |
| 1:00 | Hands-On Scanning | |
| 4:30 | Adjourn | |

| Friday, September 15, 2023 | | |
|---|---|--|
| 7:30 | Continental Breakfast | |
| 7:45 | Interactive Cases: What's Your Diagnosis? | James Mateer, MD, RDMS Charlotte Derr, MD, RDMS, FACEP Alexander Levitov, MD, FCCM, FCCP, RDCS |
| 8:30 | Break | |
| Split Lecture Session: Choose Your Track | | |
| Emergency Medicine: Main Lecture Room | | Critical Care: Scan Lab |
| 8:45 | Sonography of the Acute Scrotum James Mateer, MD, RDMS | 8:45 Cardiac Doppler & Focused Calculations Dan Bourque, MS, RCS, ACS, FASE |
| 9:30 | Break | |
| 9:40 | Advanced EM Applications: <ul style="list-style-type: none"> - Evaluation of Soft Tissue for Abscess Identification & Foreign Body Detection - Musculoskeletal Applications - Evaluation of Bony Cortices for Rapid Fracture Diagnosis/Post-Reduction Bony Alignment - Evaluation of the Eye for Selected Ocular Emergencies - Verification of Endotracheal Tube Placement Charlotte Derr, MD, RDMS, FACEP | 9:40 Echo Assessment of Cardiomyopathies & Heart Failure Alexander Levitov, MD, FCCM, FCCP, RDCS |
| | | 10:40 Break |
| 10:45 | | 10:45 MI & Complications Alexander Levitov, MD, FCCM, FCCP, RDCS |
| 11:10 | Break | |
| 11:20 | Nerve Blocks in the ED: Forearm, Truncal, Femoral & Selected Ankle Blocks Charlotte Derr, MD, RDMS, FACEP | 11:45 Evaluation of the Right Heart Alexander Levitov, MD, FCCM, FCCP, RDCS |
| 12:25 | All Groups Return to Main Lecture Room | |
| 12:30 | Interactive Post-Polling with Discussion | |
| 12:45 | Lunch | |
| 1:00 | Optional Lecture: Emergency Medicine Cases | Presented by: USF Medical Residents |
| 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).



Introduction and Advanced Emergency Medicine & Critical Care Ultrasound

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

Introduction to Emergency Medicine Ultrasound

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 24.0 *AMA PRA Category 1 Credits™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Successful completion of this CME activity, which includes participation in the evaluation component, enables the participant to earn up to 24.0 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 (ACEP) for a maximum of 24.0 hour(s) of 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.

Advanced Emergency Medicine & Critical Care Ultrasound

The Gulfoast Ultrasound Institute designates this live educational activity for a maximum of 16.0 *AMA PRA Category 1 Credits™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Successful completion of this CME activity, which includes participation in the evaluation component, enables the participant to earn up to 16.0 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.

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

Approved by the American College of Emergency Physicians (ACEP) for a maximum of 16.0 hour(s) of 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:

- Increase the participant's knowledge to better perform and/or interpret Emergency ultrasound examinations.
- State the basic fundamentals of ultrasound physics and demonstrate appropriate optimization for system controls.
- Perform ultrasound evaluation of the trauma patient (E-FAST exam) and pneumothorax.
- Demonstrate scan protocols for focused evaluation of the abdomen, aorta, female pelvis, and adult heart.
- State an algorithm for uses of bedside ultrasound during cardiac arrest, shock, and hypotension
- Demonstrate image orientation, transducer preparation, and scan protocols for performing use of ultrasound guidance for vascular access, pericardiocentesis, paracentesis, hemothorax, lumbar puncture, and ET placement/verification.
- Demonstrate protocol for focused evaluation of DVT.
- Differentiate normal/abnormal image characteristics of the abdomen, female pelvis, first trimester OB, and ectopic pregnancy.
- Identify Sonographic Characteristics Associated with Abdominal Sepsis involving the Hepatobiliary, Renal, And GI Systems.
- Outline indications and applications of color Doppler in the emergency and critical care setting.
- Perform ultrasound evaluation of the lung, ocular, soft-tissue, musculoskeletal, and bony cortices in the emergency department. (Optional EM track)
- Demonstrate the use of ultrasound guidance for peripheral vascular access.
- State principles of spectral and cardiac Doppler fundamentals and apply quantitative methods to evaluate acute valvular abnormalities (Optional critical care track).
- Recognize the sonographic appearance of individual nerves and list the advantages provided when ultrasound is used for performing regional nerve blocks. (Optional EM track)
- Evaluate fluid responsiveness in the critically ill patient.
- Perform testicular ultrasound and recognize acute abnormalities. (Optional EM track)
- Increase competence to incorporate protocols, scan techniques & interpretation criteria to improve diagnostic/treatment accuracy.

While offering CME credit hours this activity is not intended to provide extensive training or certification for performance of or interpretation of Ultrasound Examinations. 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:

**Alexander Levitov, MD, FCCM, FCCP, RDCS
(GUI QI Task Force Subcommittee)**
Eastern Virginia Medical School
Norfolk, VA
No relevant financial relationships to disclose

James Mateer, MD, RDMS
Clinical Professor, Emergency Medicine
Medical College of Wisconsin
Milwaukee, WI
No relevant financial relationships to disclose

Charlotte Derr, MD, RDMS, FACEP
Assistant Professor of Emergency Medicine &
Fellowship Director of Emergency Medicine
Ultrasound Fellowship Program
University of South Florida Medical School
Tampa, FL
No relevant financial relationships to disclose

David Bahner, MD, FACEP
Professor and Director of Ultrasound
Emergency Medicine
Ohio State University
Columbus, Ohio
No relevant financial relationships to disclose

Lori Green, BA, RDMS, RDCS, RVT
Program Director
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St. Petersburg, FL
No relevant financial relationships to disclose

Trisha Reo, AAS, RDMS, RVT
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Daniel Bourque, MS, RCS
Orlando Regional Medical Center
Orlando, FL
No relevant financial relationships to disclose

Andrew Laudenschlager, MD
Ultrasound Fellowship Director
Clinical Informaticist
Associate Professor of Emergency Medicine
Department of Emergency Medicine
Hennepin Healthcare
Minneapolis, MN
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, Gulfcoast Ultrasound Institute
Milwaukee, WI

No relevant financial relationships to disclose

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

Assistant Professor of Emergency Medicine &
Fellowship Director of Emergency Medicine
Ultrasound Fellowship Program
University of South Florida Medical School
Tampa, FL

No relevant financial relationships to disclose

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

Associate Professor of Emergency Medicine
Vice Chair of Ultrasound Education
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)

Gulfcoast 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)

Gulfcoast 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 Gulfcoast 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 DVD from our library.
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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Gulfcoast Ultrasound Institute **EQUIPMENT RECOMMENDATIONS**

Since 1985, 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, Gulfcoast Ultrasound must take an unbiased position in regards 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