



HARVARD
MEDICAL SCHOOL

Beth Israel Deaconess
Medical Center

NINTH ANNUAL
**Principles of Critical Care Medicine for
Non-Intensive Care Specialists**



September 22-24, 2021 • LIVE-STREAM



Earn up to 22.25 AMA PRA Category 1 Credits™ • 22.25 MOC Points • 11.50 Risk Management Credits

**THIS SPECIAL PROGRAM PROVIDES EDUCATION FOR PHYSICIANS,
NPs, NURSES, PAs AND APNs**

**THIS PROGRAM IS AMONG THE HIGHEST-RATED
HARVARD MEDICAL SCHOOL CME COURSES
AND OPTIMIZED FOR REMOTE LEARNING**

- Principles of mechanical ventilation
- ECMO
- Tangible strategies for managing sedation and paralysis
- Best practices in use of non-invasive ventilation and high-flow nasal cannula
- Management of submassive and massive PE
- Critical care cardiology
- Management of hemorrhagic shock and anticoagulant reversal
- Practical strategies for approaching altered mental status
- Management of ID emergencies
- Updates in the use of empiric antibiotics
- Approaches to common toxicology cases
- Electrolyte abnormalities
- Critical thinking in critical care
- Evidenced-based treatment of sepsis and pneumonia
- Care of the post-arrest patient
- Physiology of shock and best practices for vasopressor use
- Best practices for practicing comfort-focused care in your ICU
- Oncologic emergencies
- Chest tube management
- Point-of-care ultrasound

ADVANCED PROCEDURAL TRAINING: INTERACTIVE SESSIONS WITH LIVE PATIENT DEMONSTRATIONS

- How to Troubleshoot the Ventilator at the Bedside
- Essential Skills for Thoracic Ultrasound and Electrocardiography

See inside for complete agenda

**REGISTER NOW:
CriticalMedBoston.com**

Course Overview

Keeping pace with the rapid changes in evidence-based critical care medicine is difficult for specialty-trained intensivists; for non-intensivists, the challenge of staying up to date can be overwhelming. Never has this been more evident than during our battle with COVID-19. **This cutting-edge CME course is intended to provide core clinical critical-care skills to health care providers who are not trained as intensivists but whose clinical duties involve taking care of critically ill patients.** The focus of this course will be to highlight recent important evidence-based advances in the practice of modern critical care medicine and leave the audience with tangible strategies to immediately improve their practices. Hot-off-the-press emerging topics will also be addressed, arming you with the latest information.



Our outstanding faculty, recognized as experts in the field, will use diverse teaching methodologies including: didactic sessions, interactive case-based discussions, Q&A sessions, panel discussions and procedural demonstrations. These sessions will test your clinical reasoning and leave you with strategies for incorporating, synthesizing and applying core critical knowledge to your intensive care practice. Our faculty come from various training backgrounds and include physicians, respiratory therapists, pharmacists, and speech and language pathologists to assure the most up-to-date and practical content is delivered.

Master the skills you need to practice modern critical care medicine

The following intensive care problems, techniques and updates will be addressed in this comprehensive course:

- Mechanical ventilation and patient-ventilator interactions
- Non-invasive ventilation and high-flow nasal cannula
- Point-of-care ultrasound utilization in the ICU
- Advancements in ACLS and post-resuscitation care
- Sepsis updates
- End-of-life care in the ICU
- Shock and vasopressors
- Sedation
- Hemorrhagic shock and massive transfusion protocols
- Pulmonary embolism
- Post-intensive care syndrome
- Refractory hypoxemia and ARDS
- ECMO
- Ventilator troubleshooting
- Infectious emergencies and updates in antimicrobial selection
- Toxicodromes
- Procedural complications
- Acute airway emergencies
- Oncologic emergencies
- Severe acid-base and electrolyte disturbances

COURSE DIRECTORS



Margaret "Molly" Hayes, MD, ATSF

DIRECTOR

Assistant Professor of Medicine
Harvard Medical School
Director, Medical Intensive Care Unit
Director, External Education,
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I. Mary Eche, PharmD, BCPS, BCCCP, CACP

CO-DIRECTOR

Clinical Pharmacy Manager – Critical
Care/ED
Program Director, Critical Care
Pharmacy Residency
Department of Pharmacy
Beth Israel Deaconess Medical Center

FACULTY

The excellent quality of this course can be attributed to our outstanding faculty assembled from Harvard Medical School and distinguished institutions.

- Teaching practical, effective clinical reasoning and approaches that enable you to practice state-of-the-art care
- Utilizing diverse teaching methodologies to keep you engaged and involved
- Our presenters are highly skilled and experienced multidisciplinary teachers who are committed to delivering the highest-quality educational experience
- Ensuring ample opportunities to ask questions of and interact with our faculty, who are continuously responding to your pressing questions via online chat

George T. Abdallah, PharmD, BCCCP, BCCP

Asha Anandaiah, MD

Elias N. Baedorf-Kassis, MD

Janelle V. Baptiste, MD

Samuel Belok, MD

Katherine M. Berg, MD

Virginia A. Brady, MD

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Heidi H. O'Connor, MD, FCCP

Mihir S. Parikh, MD

Tyler J. Peck, MD

Camille R. Petri, MD

Eli Philips, PharmD, BCPS

Leonid Rabkin, RRT

Elisabeth D. Riviello, MD, MPH

Mehrnaz Sadrolashrafi, PharmD, BCCCP

Frank M. Schembri, MD

Richard M. Schwartzstein, MD

Andrew J. Synn, MD

Jeffrey H. William, MD

Adrian Wong, PharmD, MPH, BCPS, BCCCP

Lauren Yang, MD



Registration Information

Principles of Critical Care Medicine for Non-Intensive Care Specialists	Register on or before August 13 (save \$100)	Register after August 13
Live-Stream Option	\$795	\$895

All registrants will receive an electronic syllabus. All sessions will be recorded as they are live-streamed and made available for immediate viewing, at your convenience, through January 1, 2022.

General Information

Registration, Payment, Confirmation and Refund Policy

To register, please visit the course website at CriticalMedBoston.com. At the end of the registration process, a \$10 non-refundable processing fee will be added to your registration, and you will have the choice of paying by check, credit card (Visa, MasterCard or American Express) or wire transfer in USD. If you are paying by check (draft on a United States bank) or by wire transfer, the online registration system will provide you with instructions for remitting your course fees. Postal, telephone, fax and cash-payment registrations are not accepted.

Upon receipt of your paid registration, an email confirmation will be sent to you. Be sure to include an email address that you check frequently. Your email address is used for critical information, including registration confirmation, evaluation and certificate. Refunds, less an administrative fee of \$75, will be issued for all cancellations received two weeks before the start of the course. Refund requests must be received by email. No refund will be issued should cancellation occur less than two weeks before. "No shows" are subject to the full course fee and no refunds will be issued once the course has started.

Questions? By phone: 617-384-8600 Monday-Friday, 9:00am to 4:00pm. By email: CEPrograms@hms.harvard.edu.

Accreditation

The Harvard Medical School is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians. The Harvard Medical School designates this live activity for a maximum of 22.25 *AMA PRA Category 1 Credits*[™]. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

ABIM Maintenance of Certification

Successful completion of this CME activity enables the participant to earn up to 22.25 MOC points in the American Board of Internal Medicine's (ABIM) Maintenance of Certification (MOC) program. Participants will earn MOC points equivalent to the number of CME credits claimed for the activity. It is the CME activity provider's responsibility to submit participant completion information to the ACCME for the purpose of granting ABIM MOC points.

Nurse Practitioners and Registered Nurses

For the purpose of recertification, the American Academy of Nurse Practitioners Certification Board and American Nurses Credentialing Center accept *AMA PRA Category 1 Credit*[™] issued by organizations accredited by the ACCME. Please check with your individual state licensing board to ensure it accepts reciprocity with *AMA PRA Category 1 Credit*[™] for relicensure.

Physician Assistants

The National Commission on Certification of Physician Assistants (NCCPA) states that *AMA PRA Category 1 Credits*[™] are acceptable for continuing medical education requirements for recertification. Please check with your individual state licensing board to ensure it accepts reciprocity with *AMA PRA Category 1 Credit*[™] for relicensure.

Risk Management

This activity meets the criteria of the Massachusetts Board of Registration in Medicine for 11.50 credits of Risk Management Study. This includes .75 credits of Opioid Education and Pain Management Training and .50 credits of End-of-Life Care Studies. Please check with your individual state licensing board before claiming Risk Management Credits.

Canadian and European Accreditation

Please visit CriticalMedBoston.com/Accreditation for details.

Agenda

Day 1: Wednesday, September 22

8:00am – 8:10am

Welcome from the Course Directors

8:10am – 8:50am

A Case-Based Approach to Shock and Vasopressors*

8:50am – 9:00am

Burning Clinical Question: Should I Use Midodrine to Get My Patient off Vasopressors?*

9:00am – 9:05am

Stretch

9:05am – 9:45am

ACLS: Common Mistakes and Easy Fixes*

9:45am – 10:00am

Burning Clinical Question: Too Hot? Too Cold? Just Right? How Do I Approach Therapeutic Hypothermia in 2021?*

10:00am – 10:20am

Strategies to Manage Alcohol Withdrawal

10:20am – 10:40am

Break and Guided Meditation ✦

10:40am – 11:25am

Bedside Tools for Evaluation of Shock*

11:25am – 12:05pm

A Case-Based Approach to Common Arrhythmias

12:05pm – 1:05pm

Lunch Break

ADVANCED PROCEDURAL TRAINING SESSION

1:05pm – 1:55pm

Ventilators 101: A Review for Beginners

1:55pm – 2:05pm

Stretch

2:05pm – 2:45pm

Updates in the Management of Massive and Submassive PE

2:45pm – 3:05pm

Break and Rejuvenation Exercises ✦

3:05pm – 3:45pm

Tips and Tricks for Managing Right and Left Heart Failure

3:45pm – 4:20pm

Updates in the Management of GI Bleeds*

4:20pm – 4:30pm

Burning Clinical Question: How and When Can I Run Peripheral Vasopressors Safely? A Pro-Con Debate*

4:30pm – 4:35pm

Stretch

4:35pm – 5:05pm

Getting Comfortable with Comfort-Focused Care*

5:05pm – 5:10pm

Bringing It All Together

Program changes/substitutions may be made without notice. To view the most up-to-date version of the course program, please visit the course website.

*Qualifies for Risk Management Credits

✦ Optional Wellness Activity

Day 2: Thursday, September 23

8:00am – 8:10am

Day 2: Introduction and Overview

8:10am – 8:50am

Best Practices for ICU Sedation in 2021

8:50am – 9:00am

Burning Clinical Question: When Do I Need to Stop Propofol for High Triglycerides?*

9:00am – 9:05am

Stretch

9:05am – 9:45am

How to Approach Hypoxic Respiratory Failure

9:45am – 10:15am

Physiology and Function of High-Flow Nasal Cannula

10:15am – 10:35am

Break and Guided Meditation ✦

10:35am – 11:05am

How Intensivists Think: Critical-Thinking Strategies to Minimize Cognitive Errors in the ICU*

11:05am – 11:25am

Burning Clinical Debate: How Can I Communicate with My Intubated Patient?*

11:25am – 11:55am

A Case-Based Approach to Altered Mental Status

11:55am – 12:15pm

Vasopressors: The "New" Kids on the Block

12:15pm – 1:15pm

Lunch Break

ADVANCED PROCEDURAL TRAINING SESSION

1:15pm – 2:05pm

Ventilators 102: Troubleshooting the Ventilator

2:05pm – 2:10pm

Stretch

2:10pm – 2:40pm

ECMO 101: What Is It and When to Refer?*

2:40pm – 2:50pm

Burning Clinical Question: Should This Patient with Respiratory Failure Get Steroids?*

2:50pm – 3:10pm

Break and Rejuvenation Exercises ✦

3:10pm – 3:40pm

Best Practices for Using Non-Invasive Ventilation in the ICU

3:40pm – 3:50pm

Burning Clinical Question: Does My Patient with Altered Mental Status Need a Head CT?*

3:50pm – 3:55pm

Stretch

3:55pm – 4:25pm

Surviving COVID: What Does Survival Look Like for Patients with Severe COVID Infection?*

ADVANCED PROCEDURAL TRAINING SESSION

4:25pm – 5:15pm

Point-of-Care Ultrasound: A Live Patient Demonstration of What the Intensivist Must Know - Part 1 (The Basics)

REGISTER NOW: [CriticalMedBoston.com](https://www.criticalmedboston.com)

Day 3: Friday, September 24

8:00am – 8:10am

Day 3: Introduction and Overview

8:10am – 8:50am

Toxicology Cases: What the Intensivist Must Know in 2021*

8:50am – 9:00am

Burning Clinical Question: Does This Patient Need Stress Ulcer Prophylaxis?*

9:00am – 9:05am

Stretch

9:05am – 9:40am

A Case-Based Approach to Acid Base Disorders in the ICU

9:40am – 10:10am

Approach to Electrolyte Abnormalities in the ICU

10:10am – 10:20am

Burning Clinical Question: When Should I Start TPN?*

10:20am – 10:40am

Break and Guided Meditation *

10:40am – 10:50am

Burning Clinical Question: Do I Need to Check for a Cuff Leak? *

10:50am – 11:25am

Before the Trach: Practical Strategies for Liberation from Mechanical Ventilation

11:25am – 11:55am

Chest Tubes 101

11:55am – 12:05pm

Burning Clinical Question: The Trach Fell Out! Can I Just Put It Back In?*

12:05pm – 1:00pm

Lunch Break

1:00pm – 1:40pm

Top 3: ID Emergencies Not to Miss*

1:40pm – 1:45pm

Stretch

1:45pm – 2:20pm

Managing Sepsis in 2021: Has Anything Really Changed?*

2:20pm – 2:45pm

Too Broad, Too Narrow or Just Right?: Tips for Choosing an Empiric Antibiotic Regimen

2:45pm – 3:05pm

Break and Rejuvenation Exercises *

3:05pm – 3:35pm

Red Alert!: Management of Hemorrhagic Shock*

3:35pm – 4:15pm

Oncologic Emergencies for the General Intensivist*

4:15pm – 4:25pm

Burning Clinical Debate: Should I Reverse the Coagulopathy?*

4:25pm – 4:30pm

Stretch

ADVANCED PROCEDURAL TRAINING SESSION

4:30pm – 5:20pm

Point-of-Care Ultrasound: A Live Patient Demonstration of What the Intensivist Must Know - Part 2

5:20pm – 5:30pm

Closing Remarks

Learning Objectives

1. Review the basic principles of mechanical ventilation and describe indications for non-invasive and invasive ventilation
2. Describe evidenced-based management of bleeding in the ICU
3. Review the evidence-based management of hypoxic failure, including use of high flow nasal cannula, lung protective ventilation, PEEP optimization, proning, and ECMO
4. Categorize different types of shock, describe the pathophysiologic mechanism behind each and formulate appropriate treatment strategies
5. Summarize the appropriate steps for ultrasound-guided cannulation of the internal jugular vein
6. Recall treatment options for critically ill patients with pulmonary emboli
7. Recognize post-intensive care syndrome and long-term effects of severe COVID infection
8. Identify contemporary approaches to sedation in the ICU
9. Recognize and manage common toxicology emergencies
10. Assess cardiac emergencies such as heart failure and unstable arrhythmias
11. Rapidly assess causes and determine appropriate initial treatment for patients in cardiopulmonary arrest and identify best practices for post-arrest treatment
12. Diagnose and treat commonly encountered electrolyte abnormalities
13. Recognize and treat life-threatening infections
14. Describe the approach to bedside ultrasound and interpret findings
15. Describe best practices for end-of-life care in the ICU

Disclosure

CME activities accredited by Harvard Medical School are offered solely for educational purposes and do not constitute any form of certification of competency. Practitioners should always consult additional sources of information and exercise their best professional judgment before making clinical decisions of any kind.

ADVANCED PROCEDURAL TRAINING SESSIONS

Ventilators 101: A Review for Beginners **Ventilators 102: Troubleshooting the Ventilator**

Our expert faculty will build upon the principles of mechanical ventilation “at the bedside.” Basic techniques will be demonstrated followed by real patient cases, using high-fidelity test lungs and a ventilator, with a focus on patient-ventilator interactions, ventilator troubleshooting and pearls for ventilator waveform analysis. This session is instructed by a physician and a respiratory therapist.



Point-of-Care Ultrasound: A Live Patient Demonstration of What the Intensivist Must Know — Parts 1 & 2

These sessions provide ultrasound novices with knowledge and essential skills to evaluate decompensating patients in the ICU. Live patient demonstrations include basic cardiac echo for point-of-care evaluation to determine cardiac function, right heart strain, tamponade and volume assessments, as well as basic pleural ultrasound skills to detect a pneumothorax, pleural effusion and pulmonary edema. You will walk away with improved comfort and confidence to start using the ultrasound in the ICU and be able to recognize normal structures as well as pathology.



Who Should Attend?

All health care professionals who are not trained as intensivists but whose clinical duties involve the care of critically ill patients, including:

- Anesthesiologists
- Cardiologists
- Critical care physicians
- Emergency medicine physicians
- Family practitioners
- Hospitalists and nocturnists
- Obstetricians-gynecologists
- PAs
- Surgeons
- Nurse practitioners
- Nurses
- Pharmacists
- Other health care professionals who are commonly involved in the care of critically ill patients in intensive care settings

Live-Streaming Education for Your Convenience

This program sold out in previous years due to limited seating, but the virtual platform provides an opportunity for everyone to attend by eliminating the need to travel.



All sessions will be live-streamed and include real-time audience-response questions, live demonstrations and interactive Q&A and discussion sessions with clinical experts. Recordings of all live-streamed sessions are made available for immediate viewing online, at your convenience, through January 1, 2022.

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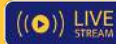


HARVARD MEDICAL SCHOOL

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