



Beth Israel Deaconess  
Medical Center

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

TENTH ANNUAL

10  
YEARS

# Principles of Critical Care Medicine for Non-Intensive Care Specialists



MASTER THE SKILLS YOU NEED TO PRACTICE MODERN CRITICAL CARE

September 14-16, 2022 • LIVE-STREAM



- 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 and oncologic 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
- Transfer considerations
- Chest tube management
- Point-of-care ultrasound
- Self-care to mitigate burnout during the pandemic

**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

## OPTIMIZED FOR REMOTE LEARNING

Interactive sessions • Instructive clinical cases with audience-response questions, all taught by renowned experts • Recordings of all live-streamed sessions are made available for immediate viewing online

Earn up to 24.00 AMA PRA Category 1 Credits™  
24.00 MOC Points  
6.75 Risk Management Credits

**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 ongoing 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.



## Engaging Sessions with Prominent Experts and Colleagues

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, nurses, respiratory therapists, pharmacists, and speech and language pathologists to ensure 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
- Nutrition in the ICU
- Point-of-care ultrasound utilization in the ICU
- Advancements in post-resuscitation care
- End-of-life care in the ICU
- Shock and vasopressors
- Sedation and delirium
- Sleep in the ICU
- Pulmonary embolism
- Post-intensive care syndrome
- Refractory hypoxemia and ARDS
- ECMO
- Ventilator troubleshooting
- Infectious emergencies and updates in antimicrobial selection
- Toxicodromes
- Airway management
- Oncologic emergencies
- Acute liver failure
- Time-limited trials in the ICU
- 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,  
Carl J. Shapiro Institute for Education and  
Research  
Division of Pulmonary, Critical Care and  
Sleep Medicine  
Beth Israel Deaconess Medical Center



**Morgan I. Soffler, MD**  
**DIRECTOR**

Assistant Professor of Medicine  
Harvard Medical School  
Associate Program Director, Harvard  
Combined Pulmonary and Critical Care  
Fellowship  
Massachusetts General Hospital/Beth Israel  
Deaconess Medical Center  
Division of Pulmonary, Critical Care and  
Sleep Medicine  
Beth Israel Deaconess Medical Center



**I. Mary Eche, PharmD, BCCCP, CACP,  
FCCM**  
**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
- Featuring highly skilled and 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, MPH

Samuel Belok, MD

Katherine M. Berg, MD

Virginia A. Brady, MD

Brett J. Carroll, MD

Gabrielle Cozzi, PharmD, BCCCP

Michael W. Donnino, MD

Pansy Elsamadisi, PharmD, BCPS, BCCCP

Timothy B. Erickson, MD

Michael C. Ferrera, MD

Michael Frankes, APRN, FCCM, FAEN, FACHE

David M. Furfaro, MD

Matthew S. Lee, MD

Sarah MacKenzie, MS, CCC-SLP, CBIS

Jason H. Maley, MD

Jason Moran, MD

Ari L. Moskowitz, MD

Heidi H. O'Connor, MD, FCCP

Mihir S. Parikh, MD

Ritika S. Parris, MD

Tyler J. Peck, MD

Camille R. Petri, MD

Leonid Rabkin, RRT

Elisabeth D. Riviello, MD, MPH

Brittany N. Rosales, MD

Mehrnaz Sadrolashrafi, PharmD, BCCCP

Frank M. Schembri, MD

Meredith Schofield, MSN, CNS, RN, ACCNS-AG, CCRN

Richard M. Schwartzstein, MD

Andrew J. Synn, MD

Jeffrey H. William, MD

Adrian Wong, PharmD, MPH, FCCM, BCCCP



## Registration Information

<b>Principles of Critical Care Medicine for Non-Intensive Care Specialists</b>	<b>Register on or before August 1 (save \$100)</b>	<b>Register after August 1</b>
Live-Stream	\$825	\$925

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 February 1, 2023.

## General Information

### Registration, Payment, Confirmation and Refund Policy

To register, please visit the course website at [CriticalMedBoston.com](http://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](mailto: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 24.00 *AMA PRA Category 1 Credits*<sup>™</sup>. 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 24.00 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*<sup>™</sup> 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*<sup>™</sup> for relicensure.

### Physician Assistants

The National Commission on Certification of Physician Assistants (NCCPA) states that *AMA PRA Category 1 Credits*<sup>™</sup> 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*<sup>™</sup> for relicensure.

### Risk Management

This activity meets the criteria of the Massachusetts Board of Registration in Medicine for 6.75 credits of Risk Management Study. This includes .75 credits of Opioid Education and Pain Management Training and .75 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](http://CriticalMedBoston.com/Accreditation) for details.

### 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.

**REGISTER NOW: [CriticalMedBoston.com](http://CriticalMedBoston.com)**

# Agenda

## Day 1: Wednesday, September 14

8:00am – 8:10am

**Welcome from the Course Directors**

8:10am – 8:50am

**Toxicology Cases: What the Intensivist Must Know in 2022**

8:50am – 9:00am

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

9:00am – 9:05am

*Stretch*

9:05am – 9:35am

**Oncologic Emergencies for the General Intensivist\***

9:35am – 10:10am

**A Case-Based Approach to Common Arrhythmias**

10:10am – 10:20am

**Burning Clinical Question: Can I Convert A-Fib to Sinus Without Anticoagulation?\***

10:20am – 10:40am

*Break and Guided Meditation ✦*

10:40am – 11:15am

**Updates in the Management of Massive and Submassive PE**

11:15am – 11:50am

**Heart Failure in the ICU: Tips and Tricks for Diagnosis and Management**

11:50pm – 12:00pm

**Burning Clinical Question: What's the Right Ratio in Hemorrhagic Shock?\***

12:00pm – 12:55pm

*Lunch Break*

### ADVANCED PROCEDURAL TRAINING SESSION

12:55pm – 1:45pm

**Vents 101: A Review for Beginners**

1:45pm – 1:55pm

*Stretch*

1:55pm – 2:25pm

**The Management of Critically Ill COVID Patients in 2022\***

2:25pm – 2:55pm

**Critical Illness Survivorship: What the ICU Team MUST Know**

2:55pm – 3:15pm

*Break and Rejuvenation Exercises ✦*

3:15pm – 3:55pm

**Infectious Disease Emergencies You Cannot Miss\***

3:55pm – 4:25pm

**Antibiotics Stat: Best Practices for Empiric Coverage for Sepsis**

4:25pm – 4:30pm

*Stretch*

4:30pm – 4:40pm

**Quick Hit: Tips for Anticoagulant Reversal**

4:40pm – 5:10pm

**We Got ROSC! Now What...?**

5:10pm – 5:50pm

**Doubling Down on the D Word to Improve Communication and Culture in Your ICU: Care of the Dying Patient\***

5:50pm – 5:55pm

**Bringing It All Together**

## Day 2: Thursday, September 15

8:00am – 8:05am

**Day 2: Introduction and Overview**

8:05am – 8:55am

**#Sedation Goals: Best Practices for Managing Pain, Agitation and Delirium**

8:55am – 9:05am

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

9:05am – 9:10am

*Stretch*

9:10am – 9:55am

**An Evidence-Based Approach to Hypoxic Respiratory Failure**

9:55am – 10:05am

**Burning Clinical Question: How Do I Care for the Paralyzed Patient?\***

10:05am – 10:25am

*Break and Guided Meditation ✦*

10:25am – 11:00am

**High Flow, Low Flow: Deciphering Oxygen Delivery Devices**

11:00am – 11:10am

**Burning Clinical Question: What Is a Time-Limited Trial?**

11:10am – 11:40am

**Critical Thinking in Critical Care: Thinking Strategies to Minimize Cognitive Errors in the ICU\***

11:40am – 11:50am

**Quick Hit: The Process of Proning**

11:50am – 12:40pm

*Lunch Break*

### ADVANCED PROCEDURAL TRAINING SESSION

12:40pm – 1:30pm

**Vents 102: Troubleshooting the Ventilator — Your Knowledge from Plateau to Peak**

1:30pm – 1:35pm

*Stretch*

1:35pm – 2:05pm

**Updates on the Use of Non-Invasive Ventilation in the ICU**

2:05pm – 2:15pm

**Quick Hit: Intubation Pearls for the Non-Intubator**

2:15pm – 2:25pm

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

2:25pm – 2:45pm

*Break and Rejuvenation Exercises ✦*

2:45pm – 3:30pm

**Bedside Tools for Evaluation of Shock**

3:30pm – 3:40pm

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

3:40pm – 4:20pm

**Best Practices for Vent Weaning and Liberation**

4:20pm – 4:25pm

*Stretch*

4:25pm – 4:35pm

**Quick Hit: Post-Extubation Stridor**

4:35pm – 5:05pm

**Diagnosis and Management of Pneumothoraces in the ICU**

5:05pm – 5:30pm

**Tracheostomy Tips for the General Intensivist**

5:30pm – 6:10pm

**It's 3am and Your Pager Goes Off...Challenging Cases in Critical Care**

## Day 3: Friday, September 16

8:00am – 8:10am

**Day 3: Introduction and Overview**

8:10am – 8:45am

**A Case-Based Approach to Shock and Vasopressors\***

8:45am – 9:05am

**Quick Hit: Improving Sleep in the ICU**

9:05am – 9:10am

*Stretch*

9:10am – 9:20am

**Burning Clinical Question: How Should I Communicate with My Intubated Patient?\***

9:20am – 10:00am

**A Case-Based Approach to Altered Mental Status**

10:00am – 10:20am

*Break and Guided Meditation ✦*

### SPECIAL WORKSHOP

10:20am – 11:10am

**Trials and Tribulations of Transferring Critically Ill Patients\***

11:10am – 11:35am

**When Pressors Are Not Enough: The ABCs of Mechanical Circulatory Support**

11:35am – 11:40am

*Stretch*

11:40am – 12:10pm

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

12:10pm – 1:00pm

*Lunch Break*

1:00pm – 1:35pm

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

1:35pm – 2:05pm

**A Case-Based Approach to Electrolyte Abnormalities in the ICU**

2:05pm – 2:15pm

**Burning Clinical Question: When Should I Start TPN?\***

2:15pm – 2:35pm

*Break and Rejuvenation Exercises ✦*

### ADVANCED PROCEDURAL TRAINING SESSION

2:35pm – 3:15pm

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

3:15pm – 3:25pm

*Stretch*

### ADVANCED PROCEDURAL TRAINING SESSION

3:25pm – 4:05pm

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

4:05pm – 4:10pm

*Stretch*

4:10pm – 4:45pm

**When Airway Obstruction Becomes Critical: AECOPD and Status Asthmaticus\***

4:45pm – 5:20pm

**Clinician, Heal Thyself: Self-Care to Mitigate Burnout During the Pandemic**

5:20pm – 5:25pm

**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 approach to massive transfusion 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

\*Qualifies for Risk Management Credits

✦ Optional Wellness Activity

## 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 February 1, 2023.

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.

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



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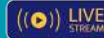
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