ANESTHESIOLOGY UPDATE 2020
Boston, MA • May 11-15, 2020

UPDATES, STRATEGIES and PRACTICE RECOMMENDATIONS to OPTIMIZE PATIENT OUTCOMES

- Sex, gender and perioperative outcome
- Trauma and blood management
- Perioperative brain and heart failure
- Difficult airway
- Advances in regional anesthesia
- Care of the parturient
- Apology and disclosure
- Opioid crisis
- New drugs in the anesthesia pipeline
- Multimodal general anesthesia
- Enhanced recovery after surgery
- End-of-life care
- Preventing burnout
- Artificial intelligence
- Pollution and anesthesia practice
- Value-based care
- Perioperative stroke prevention

This program is among the highest-rated Harvard Medical School CME courses. Early registration advised.

OPTIONAL HANDS-ON WORKSHOPS
- ACLS Recertification
- Regional Anesthesia
- Difficult Airway

Register at Anesthesiology.HMSCME.com

Earn up to:
- 53.50 AMA PRA Category 1 Credits™
- 53.50 MOCA 2.0® CME credits
- 20.25 Credits Risk Management Study
- 50.75 AANA Class A CE credits
Disclaimer: 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.
Course Description
This in-depth course, presented by the Harvard Medical School faculty, is intended to provide anesthesia practitioners with a comprehensive review of the most important advances in clinical anesthesiology and each of its major subspecialties, including ambulatory, thoracic, pediatric, obstetric, regional, and cardiac anesthesia. The program will include lectures, panel discussions, problem-based discussions, and workshops, along with ample time for interaction with faculty.

The course will include basic principles, while emphasizing clinical problems and controversial aspects of patient care. We will continue our popular format from previous years, with intensive all-day programs and evening workshops to provide hands-on instruction and practice, demonstrating our commitment to lifelong learning and providing a dynamic continuing educational experience to clinical and research professionals in the field of anesthesiology.

Learning Objectives
Upon completion of this course, participants will be able to:

• Apply principles for practicing perioperative ultrasound
• Diagnose and develop a treatment plan for cerebrovascular emergencies
• Recognize best practices in preoperative evaluation and risk assessment
• Integrate updated guidelines into practice when managing the difficult airway
• Implement current principles for appropriate opioid use and pain management
• Interpret the latest evidence-based practices in obstetric anesthesia
• Incorporate multimodal general anesthesia and enhanced recovery into clinical practice
• Use best practices in managing patients with morbid obesity and sleep apnea
• Integrate evidence-based protocols when practicing regional anesthesia
• Identify new drugs that can be incorporated into anesthesia practice

Accreditation
ACCREDITATION COUNCIL FOR CONTINUING MEDICAL EDUCATION
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 53.50 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

• Course only, no Lunch-and-Learn Roundtable Discussions = 37.25 AMA PRA Category 1 Credits™
• Course, including optional Lunch-and-Learn Roundtable Discussions (5.00) = 42.25 AMA PRA Category 1 Credits™
• Course (37.25) with Tues. ACLS Workshop (3.75), Weds. Airway Workshop (3.75), and Thurs. Regional Workshop (3.75) = a maximum of 48.50 AMA PRA Category 1 Credits™
• Course (37.25) with Tues. Ether Dome Tour (1.75) = 39.00 AMA PRA Category 1 Credits™

MOCA 2.0® Part II CME with the AMERICAN BOARD OF ANESTHESIOLOGY®
This activity contributes to the CME requirement for the CME component of the American Board of Anesthesiology’s (ABA) redesigned Maintenance of Certification in Anesthesiology™ program (MOCA®), known as MOCA 2.0®. Please consult the ABA website, www.theABA.org, for a list of all MOCA 2.0 requirements. Maximum of 53.50 credits.

NURSE ANESTHETISTS
This program has been prior approved by the American Association of Nurse Anesthetists for 50.75 Class A CE credits; Code Number 1038390; Expiration Date 5/15/2020.

RISK MANAGEMENT
This activity meets the criteria of the Massachusetts Board of Registration in Medicine for 20.25 credits of Risk Management Study. This includes 12.75 credits in Opioid Education and Pain Management Training and 2.00 credits of End-of-Life Care Studies. Please check your individual state licensing board requirements before claiming these credits.

CANADIAN ACCREDITATION
The Royal College of Physicians and Surgeons of Canada recognizes conferences and workshops held outside of Canada that are developed by a university, academy, hospital, specialty society or college as accredited group learning activities.

EUROPEAN ACCREDITATION
Through an agreement between the American Medical Association and the European Union of Medical Specialists, physicians may convert AMA PRA Category 1 Credit™ to an equivalent number of European CME Credits® (ECMECs®). Information on the process of converting AMA PRA Category 1 Credits™ to ECMECs® can be found at: www.eaccme.eu.
## Monday, May 11

### The Focus Is Improving Outcome

**Moderator:** Dr. Sundar

- **6:00-7:30:** Registration and Breakfast

### Influence of Sex and Gender on Perioperative Outcomes
- **7:30-8:00**
  - **Kate Leslie, MD, FANZCA**

### Protective Ventilation during General Anesthesia Improves Outcome
- **8:00-8:30**
  - **Paolo Pelosi, MD, FERS**

### Balanced Anesthesia Study
- **8:30-9:00**
  - **Kate Leslie, MD, FANZCA**

### Q&A
- **9:00-9:15**
  - **Drs. Leslie, Pelosi and Sundar**

### Understanding the Central Nervous System

**Moderator:** Dr. Mason

- **9:30-10:10**
  - **Updates in Multimodal General Anesthesia: Principles and Practices**
    - Emery Brown, MD, PhD

### Perioperative Brain Failure 2020
- **10:10-10:50**
  - **Gregory Crosby, MD**

### Nociception Monitors during Anesthesia: Do They Help?
- **11:30-11:45**
  - **Philippe Richebé, MD, PhD, DESAR**

### Q&A
- **11:45-1:15**
  - **Drs. Brown, Crosby, Mason and Richebé**

### Care of the Parturient

**Moderator:** Dr. Hess

- **1:15-1:45**
  - **Neuraxial Anesthesia for Pregnant Women with Back and Spine Abnormalities**
    - Lisa Leffert, MD

### Ambulatory Patient Selection
- **4:15-4:45**
  - **Richard Urman, MD, MBA**

### Office-Based Anesthesia: New Guidelines and Patient Safety
- **4:45-5:15**
  - **Fred Shapiro, DO, FASA**

### Q&A
- **5:15-5:30**
  - **Drs. Mason, Shapiro and Urman**

### Patient Safety in Ambulatory and Office-Based Surgery

**Moderator:** Dr. Mason

- **6:00-7:30:** Registration and Breakfast

### Ether Dome Tour
- **5:30-7:30**
  - **Susan Vassallo, MD**

## Tuesday, May 12

### What Is New in Pharmacology

**Moderator:** Dr. Mason

- **6:30-7:30:** Registration and Breakfast

### The Enigma of Nitrous Oxide
- **7:30-8:00**
  - **Steven Shafer, MD**

### Anesthetic Care for Patients with Chronic Pain: Waking Up Happy
- **8:00-8:30**
  - **Pamela Flood, MD, MA**

### New Hypnotics: Ready for Prime Time
- **8:30-9:00**
  - **Michel Struys, MD, PhD, FRCA**

### Q&A
- **9:00-9:15**
  - **Drs. Flood, Mason, Shafer and Struys**

### Hot Topics in 2020

**Moderator:** Dr. Mountjoy

- **9:30-10:00**
  - **Closed Loops, Advisory Systems and Artificial Intelligence in Anesthesia**
    - Michel Struys, MD, PhD, FRCA

### Electrical Safety in the Operating Room
- **11:00-11:30**
  - **Steven Shafer, MD**

### Q&A
- **11:45-1:15**
  - **Drs. Michna, Mountjoy, Richebé, Shafer and Struys**

### Old Problems: New Solutions

**Moderator:** Dr. Valovska

- **1:15-1:45**
  - **Chronic Pain in Women Before, During and After Pregnancy**
    - Pamela Flood, MD, MA

### Value-Based Care for Geriatric Patients Having Surgery
- **1:45-2:15**
  - **Angela Bader, MD, MPH**

### One Size Does Not Fit All: Pain Phentotyping and Its Importance to Treatment and Prevention of Chronic Postsurgical Pain
- **2:45-3:15**
  - **Kristin Schreiber, MD, PhD**

### Q&A
- **3:30-3:45**
  - **Drs. Bader, Flood, Schreiber, Valovska and Vassallo**

### The Critically Ill Patient: Improving Outcome

**Moderator:** Dr. Mason

- **3:45-4:15**
  - **The Ten Magic Rules to Ventilate ARDS Patients**
    - Paolo Pelosi, MD, FERS

### Oxygen Administration: The Perioperative Sweet Spot
- **4:45-5:15**
  - **Shahzad Shaefi, MD, MPH**

### Q&A
- **5:15-5:30**
  - **Drs. Mason, Pelosi, Shafer and Silver**

### Optional Workshop or Tour

- **5:30-8:00**
  - **Ether Dome Tour**
    - **Susan Vassallo, MD** (Limited to 50 attendees)
      - Includes transportation and refreshments

- **5:30-10:00**
  - **ACLS Workshop**
    - **Hovig Chitilian, MD** (Limited to 50 attendees)
      - Includes dinner
### AGENDA

#### Wednesday, May 13

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>6:30-7:30</td>
<td>Breakfast</td>
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<tr>
<td>7:30-8:00</td>
<td>Clinically Relevant Topics in Pediatric Anesthesia&lt;br&gt;Moderator: Dr. Soriano</td>
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<tr>
<td>8:00-8:30</td>
<td>Preoperative Fasting: The European Guidelines and the Science Behind It&lt;br&gt;Laszlo Vutskits, MD, PhD</td>
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<tr>
<td>8:30-9:00</td>
<td>Enhanced Recovery after Surgery in Children&lt;br&gt;Sanathanan Suresh, MD, MBA, FAAP</td>
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<td>9:00-9:30</td>
<td>Anesthesia and the Infant Brain: Is There a Cause for Concern? Sulpicio Soriano, MD</td>
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<td>9:30-10:00</td>
<td>Organ Protection in Pediatric Anesthesia&lt;br&gt;Laszlo Vutskits, MD, PhD</td>
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<tr>
<td>10:00-10:15</td>
<td>Q&amp;A&lt;br&gt;Drs. Ferrari, Soriano, Suresh and Vutskits</td>
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<tr>
<td>10:15-10:30</td>
<td>Break (refreshments provided)</td>
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<tr>
<td>11:00-11:30</td>
<td>Practicable Solutions for Self-Care&lt;br&gt;Moderator: Dr. Mason</td>
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<tr>
<td>11:00-11:30</td>
<td>Becoming a More Resilient Clinician&lt;br&gt;Gregory Hammer, MD</td>
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<tr>
<td>11:30-11:45</td>
<td>Q&amp;A&lt;br&gt;Drs. Hammer, Mason and Suresh</td>
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<tr>
<td>11:45-1:15</td>
<td>Optional Lunch-and-Learn Roundtables</td>
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<tr>
<td>11:45-1:15</td>
<td>Mitigate Stress: Easy and Practical Meditation Strategies for the Busy Anesthesia Practitioner&lt;br&gt;Balachundhar Subramaniam, MD, MPH (Optional)—no fee; limited to first 100 registrants. Lunch provided.</td>
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<tr>
<td>2:15-2:45</td>
<td>How General Anaesthetics Work: For Busy Clinicians, By a Busy Clinician&lt;br&gt;Donal Buggy, MD, FRCP, FCAI, FRCA</td>
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<td>2:45-3:00</td>
<td>Q&amp;A&lt;br&gt;Drs. Buggy and Mason</td>
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<tr>
<td>3:00-3:15</td>
<td>Break (refreshments provided)</td>
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<tr>
<td>3:15-3:45</td>
<td>Everyday Clinical Challenges&lt;br&gt;Moderator: Dr. Moutyain</td>
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<tr>
<td>3:15-3:45</td>
<td>Perioperative Care of the Patient with Diabetes Mellitus: What Are Those New Medications and How Do You Manage Them?&lt;br&gt;Robert Peterfreund, MD</td>
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<tr>
<td>3:45-4:15</td>
<td>Perioperative Management of the Implantable Cardioverter Defibrillator&lt;br&gt;Scott Streckenbach, MD</td>
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<td>4:15-4:45</td>
<td>Perioperative Stroke Prevention: A Reality&lt;br&gt;Matthias Eikermann, MD, PhD</td>
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<tr>
<td>4:45-5:15</td>
<td>Anesthetic Management of Ruptured Abdominal Aortic Aneurysm&lt;br&gt;Hovig Chitilian, MD</td>
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<tr>
<td>5:15-5:30</td>
<td>Q&amp;A&lt;br&gt;Drs. Chitilian, Eikermann, Montoyain, Peterfreund and Streckenbach</td>
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#### Thursday, May 14

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<tr>
<th>Time</th>
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<tbody>
<tr>
<td>6:30-7:30</td>
<td>Breakfast</td>
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<tr>
<td>7:30-8:00</td>
<td>Optimizing Patient Care&lt;br&gt;Moderator: Dr. Sundar</td>
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<tr>
<td>8:00-8:30</td>
<td>Exercise Physiology Coming to a Heart Near You&lt;br&gt;James A. DiNardo, MD, FAAP</td>
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<tr>
<td>8:30-9:00</td>
<td>Coagulation Management in Cardiac Surgery&lt;br&gt;Keyvan Karkouti, MD, FRCP, MSc</td>
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<tr>
<td>9:00-9:15</td>
<td>Q&amp;A&lt;br&gt;Drs. DiNardo, Karkouti and Sundar</td>
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<td>9:15-9:30</td>
<td>Break (refreshments provided)</td>
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### Potpourri

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<tr>
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<tbody>
<tr>
<td>9:30-10:00</td>
<td>Patients in Endoscopy Suites — Challenging Cases: Patient Safety First&lt;br&gt;Eswar Sundar, MD</td>
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<tr>
<td>10:00-10:30</td>
<td>Perioperative Care of the Bariatric Patient&lt;br&gt;Roman Schumann, MD</td>
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<td>10:30-11:00</td>
<td>My Patient Has Stridor, Now What?&lt;br&gt;Managing the Airway with Laryngeal Abnormalities&lt;br&gt;Aviva Leibowitz, MD</td>
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<tr>
<td>11:00-11:30</td>
<td>Quality Metrics: Framework for Establishing Measures and Success&lt;br&gt;Saty Krishna Ramachandran, MD</td>
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#### Optional Lunch-and-Learn Roundtables

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<tr>
<td>11:30-11:45</td>
<td>Q&amp;A&lt;br&gt;Drs. Leibowitz, Ramachandran, Schumann, Sundar and Valovska</td>
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<td>11:45-1:15</td>
<td>Optional Lunch-and-Learn Roundtables</td>
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### Medicolegal Implications for the Anesthesia Practitioner

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<tr>
<th>Time</th>
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<tr>
<td>1:15-1:45</td>
<td>Chronic Heart Failure: Understanding Epidemiology and Instituting Therapy&lt;br&gt;Yvonne Lai, MD</td>
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<tr>
<td>1:45-2:15</td>
<td>Acute Cardiogenic Shock in the Operating Room&lt;br&gt;Jerome Crowley, MD</td>
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<tr>
<td>2:15-2:45</td>
<td>Anesthesia Stat for ECMO Cannulation&lt;br&gt;Gaston Cudemus, MD</td>
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<tr>
<td>2:45-3:15</td>
<td>Putting a Team Together for a State-of-the-Art Heart Center&lt;br&gt;Keneth Shelton, MD</td>
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<tr>
<td>3:15-3:30</td>
<td>Q&amp;A&lt;br&gt;Drs. Crowley, Cudemus, Lai and Shelton</td>
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<td>3:30-3:45</td>
<td>Break (refreshments provided)</td>
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### Regional Anesthesia Workshop

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<th>Time</th>
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<tr>
<td>5:30-10:00</td>
<td>Regional Anesthesia Workshop&lt;br&gt;Hyun Kee Chung, MD (Limited to 50 attendees) Includes dinner</td>
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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.
Tailor your education at Anesthesiology Update 2020 with the optional buffer Lunch-and-Learn Roundtables listed below. Each luncheon session focuses in depth on one important topic, with insights provided and interactive discussion led by a master clinician or subject matter expert. Participation is limited to 25 attendees per session to ensure all participants get their questions answered.

**Monday, May 11**

- **Acute and Persistent Pain after Orthopedic Trauma**
  Kate Leslie, MD, FANZCA

- **Learn Intravenous Pharmacokinetics and Pharmacodynamics with the BWH Anesthesia Simulator iPad App**
  Christopher Connor, MD, PhD

- **Managing Postpartum Headaches: A Practical Review**
  Vesela P. Kovacheva, MD, PhD

- **Managing the Pregnant Patient for Non-Obstetric Surgery**
  Richard Steinbrook, MD

**Tuesday, May 12**

- **Intraoperative Neurophysiologic Monitoring: How, Why and When**
  Richard Pollard, MD, FASA

- **Not Just a Bronchoscopy: Anesthesia for Interventional Pulmonology Cases**
  John Pawlowski, MD, PhD and Ameeka Pannu, MD

- **Please Check the CXR in the PACU: What Do I Need to Know?**
  David Silver, MD

- **Prevention of Persistent Postamputation Pain with Regional Anesthesia and Acute Pain Management**
  Kristin Schreiber, MD, PhD

- **Saving for Retirement: Maximizing Savings for the Long Haul**
  Jonathan Griswold, MD

**Wednesday, May 13**

- **Anesthesia for the Child with Congenital Heart Disease Having Non-Cardiac Surgery**
  Gregory Hammer, MD

- **Hip Fracture Management: A Rising Societal Tsunami**
  Donal Buggy, MD, FRCPI, FCAI, FRCA

- **Keeping the Child Comfortable: Pain Management in Pediatrics**
  Karen Boretsky, MD

- **The Pediatric Airway: Challenging Cases**
  Jennifer Dearden, MD

**Thursday, May 14**

- **Acupuncture Workshop**
  Yuan-Chi Lin, MD, MPH

- **Evidence-Based Pain Management for Thoracic Surgery Patients**
  Xiaodong Bao, MD, PhD

- **Lower Extremity Blocks Revisited**
  Ivan Valovski, MD

- **The Yup, the Nope and the Maybe in Regional Anesthesia**
  Anasuya Vasudevan, MD, FRCA

- **Upper Extremity Blocks in Patients with Challenging Anatomy**
  Lisa Kunze, MD, PhD

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This program is among the highest-rated Harvard Medical School CME courses. Early registration to the 2020 program is advised.

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Optional Tour of the Ether Dome

**Tuesday evening, May 12**

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**IMPORTANT NOTE:** These roundtable luncheons are not included with the standard conference registration. You must add them onto your registration. Slots are filled on a first-come, first-served basis, and most or all roundtables will sell out, so early registration is strongly recommended.

*Personal finance session not eligible for AMA PRA Category 1 Credit™*
More than 80 nationally and internationally renowned leaders in the fields of Ambulatory, Cardiac, Critical Care, Obstetric, Pain Management, Pediatric, Regional, and Thoracic Anesthesiology provide focused education, pairing updates and best practices with specific recommendations to incorporate them into practice for improved patient care.

Patient safety
Clinical outcomes
Quality measures
Improved hands-on skills
Clinician wellness
Risk reduction

Register at Anesthesiology.HMSCME.com
Anesthesiology Update 2020  
(Course #732425-2002)

<table>
<thead>
<tr>
<th>Tuition</th>
<th>Register on or before March 31, 2020</th>
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<tbody>
<tr>
<td>Physicians and CRNAs</td>
<td>$1,565</td>
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<tr>
<td>Residents, Fellows, and Students</td>
<td>$1,365</td>
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Optional Activities

Optional Lunch-and-Learn Roundtables  
(Monday through Thursday afternoons)  
(Each roundtable limited to a maximum of 25 participants)  
$75 each

Optional Workshops  
(Optional workshops limited to a maximum of 50 participants)

<table>
<thead>
<tr>
<th>Tuesday evening, May 12</th>
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<tbody>
<tr>
<td>Ether Dome Tour (off site): Includes refreshments and transportation or ACLS Workshop (on site): Includes dinner</td>
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<table>
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<tr>
<th>Wednesday evening, May 13</th>
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<tbody>
<tr>
<td>Difficult Airway Workshop (on site): Includes dinner</td>
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<table>
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<tr>
<th>Thursday evening, May 14</th>
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<tbody>
<tr>
<td>Regional Anesthesia Workshop (on site): Includes dinner</td>
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</table>

Your tuition includes all breakfasts and coffee breaks, a reception and poster session on the evening of Monday, May 11, and complimentary internet in the meeting room. All attendees of Anesthesiology Update 2020 will receive an electronic syllabus.

Registration, Payment, Confirmation and Refund Policy

Registrations for Harvard Medical School CME programs are made via our secure online registration system. To register for this course, please visit the course website at Anesthesiology.HMSCME.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 US bank), the online registration system will provide you with instructions for remitting your course fees. Postal, telephone, fax, and cash-payment registrations are not accepted. Fees shown in USD.

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. Please do not make non-refundable travel arrangements until you have received an email confirming your paid registration. Refunds, less an administrative fee of $75, will be issued for all cancellations received two weeks prior to the start of the course. Refund requests must be received by email. No refund will be issued should cancellation occur less than two weeks prior. “No shows” are subject to the full course fee and no refunds will be issued once the course has started.

INQUIRIES

Call 617-384-8600 Monday – Friday, 9am – 5pm (ET). Send email to CEPrograms@hms.harvard.edu

VENUE

Fairmont Copley Plaza  
138 St. James Avenue • Boston, Massachusetts  
+1 617-267-5300

ACCOMMODATIONS

Fairmont Copley Plaza has reserved a block of discounted rooms for course participants.

Important to note:

• The number of discounted rooms is limited.
• Discounted rooms are available on a first-come, first-served basis.
• The discounted room rate is only available until April 15, 2020, or until the block sells out, which typically happens well in advance of this date.

To reserve your room:

• Online: To reserve your room online, please go to Anesthesiology.HMSCME.com/Venue—the Venue page of the course website—and click on the dedicated reservation link.
• By phone: If you are calling the hotel rather than using the dedicated link to request a discounted room, please call 1-800-441-1414 and specify that you are enrolled in Harvard Anesthesiology Update.

Register at Anesthesiology.HMSCME.com