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Mayo Clinic School of Continuous Professional Development

# Multidisciplinary Update in **PULMONARY** & CRITICAL CARE MEDICINE 2018

**WESTIN KIERLAND RESORT & SPA**

**SCOTTSDALE, ARIZONA**

**APRIL 12–15, 2018**

[CE.MAYO.EDU/PULMONARY2018](http://CE.MAYO.EDU/PULMONARY2018)

ADDITIONAL EDUCATION OPPORTUNITY

# ECMO

## EXTRACORPOREAL MEMBRANE OXYGENATION SYMPOSIUM

**MAYO CLINIC COLLABORATIVE RESEARCH BUILDING**

**SCOTTSDALE, ARIZONA**

**APRIL 10–11, 2018**

**\$200 DISCOUNT  
IF YOU REGISTER  
ON OR BEFORE  
FEB. 20, 2018**

[CE.MAYO.EDU/ECMO2018](http://CE.MAYO.EDU/ECMO2018)



# MULTIDISCIPLINARY UPDATE IN PULMONARY & CRITICAL CARE MEDICINE 2018

Westin Kierland Resort & Spa  
April 12–15, 2018 • Scottsdale, Arizona

## COURSE DESCRIPTION

The Multidisciplinary Update in Pulmonary and Critical Care Medicine 2018 course will provide a state-of-the-art update on clinical advances in pulmonary and critical care medicine. A multidisciplinary faculty from Mayo Clinic will provide a comprehensive approach to the current evaluation and management of various respiratory disease. Topics include: airway disease, critical care, interstitial lung diseases and sleep disorders.

## TARGET AUDIENCE

Pulmonologists, Intensivists, General Internists, Hospitalists, Thoracic Surgeons, Anesthesiologists, Sleep and Emergency Room Specialists, Physician Assistants, Nurse Practitioners, and Allied Health Professionals who deal with areas of pulmonary and critical care medicine will find this course of value in their daily practice.

## LEARNING OBJECTIVES

Upon conclusion of this program, participants should be able to:

- Identify the guidelines for step-down therapy in asthma care.
- Recognize the problems associated with prolonged intensive care unit stays.
- Identify the developments in personalized sepsis management of intensive care unit patients.
- Describe the current treatment of idiopathic pulmonary fibrosis.
- Review the latest treatment and prognosis of connective tissue disease-associated interstitial lung diseases.
- Describe the pathological patterns of the various interstitial lung diseases.
- Summarize a radiological approach to diagnosing various interstitial lung diseases.
- Assess the evaluation and treatment of patients with pleural disease.
- Review the recent advances in thoracic surgery.
- Describe the recent advances in bronchoscopy.
- Review the evaluation and treatment of patients with chronic sinusitis.
- Describe the current status of technology in improving care of patients with sleep apnea.

Attendance at this Mayo Clinic course does not indicate nor guarantee competence or proficiency in the performance of any procedures which may be discussed or taught in this course.

## PULMONARY REGISTRATION

Register online at:

[CE.MAYO.EDU/PULMONARY2018](https://ce.mayo.edu/pulmonary2018)

Registration Fee	On or Before March 12	After March 12
MD, PhD, DO	\$600 USD	\$675 USD
PA, NP, RN, Resident, Other	\$500 USD	\$575 USD

Visit the course website for more information on registering and our cancellation policy.

## PULMONARY LOCATION AND ACCOMODATIONS

### The Westin Kierland Resort & Spa

6902 E. Greenway Parkway | Scottsdale, AZ 85254 | (800) 354-5892

A limited block of guest rooms has been reserved for attendees at the special group rate of \$309/night (USD) plus applicable city/state taxes. Make your reservation before the block fills or the cut-off date of March 12, 2018, reference Mayo Clinic Pulmonary Medicine Course. Group rates will apply three days prior to and three days after the course dates based on group room availability. Children younger than 17 will stay complimentary. Third or fourth adult person rates are \$50 each. Attendees are responsible for their own reservations. For more information and to make your reservations, please visit the course website.

## PULMONARY FACULTY

### Mayo Clinic Course Directors

Charles D. Burger, M.D.

Ulrich Specks, M.D.

Robert W. Viggiano, M.D.

### Mayo Clinic Faculty

Staci E. Beamer, M.D.

Rodrigo Cartin-Ceba, M.D.

Kristopher W. Cummings, M.D.

Mark K. Edwin, M.D.

Emir Festic, M.D.

Juan C. Gea Banacloche, M.D.

Michael B. Gotway, M.D.

Margaret M. Johnson, M.D.

Augustine S. Lee, M.D.

Philip J. Lyng, M.D.

Michael J. Marino, M.D.

Bernie W. Miller, M-HSA, RRT, RPSGT, CCSH

Neal M. Patel, M.D.

Matthew A. Rank, M.D.

Kenneth K. Sakata, M.D.

Ayan Sen, M.D.

Maxwell L. Smith, M.D.

Karen L. Swanson, D.O.

Henry D. Tazelaar, M.D.

Lewis J. Wesseliuss, M.D.

# PULMONARY PROGRAM

Comprehensive program schedule at:

[CE.MAYO.EDU/PULMONARY2018](http://CE.MAYO.EDU/PULMONARY2018)

## THURSDAY, APRIL 12, 2018

6:45 a.m.	Registration & Continental Breakfast
7:20	Welcome Announcements
7:30	Personalizing Sepsis Care
8:10	Respiratory Mechanics and Driving Pressure
8:50	Beyond the ICU: From Survival to Recovery
9:30	Break
9:50	Critical Care Toxicology
10:30	Palliative Care for the Hospitalized Patient
11:10	Pearls and Pitfalls from Neuro Critical Care
11:50	Critical Care Literature Review
12:30 p.m.	Adjourn

## SATURDAY, APRIL 14, 2018

6:45 a.m.	Continental Breakfast
7:25	Announcements
7:30	Update in Bronchoscopy
8:10	Advances in Thoracic Surgery
8:50	Evaluation and Management of Pleural Disease
9:30	Break
9:50	Radiology of the Interstitial Lung Diseases
10:30	Pathology of Interstitial Lung Diseases
11:10	Update in Idiopathic Pulmonary Fibrosis
11:50	Update in Connective Tissue Related Interstitial Lung Disease
12:30 p.m.	Adjourn

## FRIDAY, APRIL 13, 2018

6:45 a.m.	Continental Breakfast
7:25	Announcements
7:30	Aspiration Syndromes
8:10	Microbiome and Lung Disease
8:50	Pulmonary Infiltrates in Immunocompromised Patients
9:30	Break
9:50	Pulmonary Literature Review
10:30	Radiology Review of the Secondary Lobule
11:10	Interesting Cases
12:30 p.m.	Adjourn

## SUNDAY, APRIL 15, 2018

6:30 a.m.	Continental Breakfast
6:55	Welcome Announcements
7:00	How and When to Step Down Asthma Medications
7:45	Evaluation and Treatment of Chronic Sinus Disease
8:30	Break
8:45	Beyond CPAP: Newer Modes of Non-Invasive Ventilation for Sleep Apnea and Hypoventilation
9:30	Using Technology to Improve Care of the Patients with Sleep Disorders
10:15	Adjourn

## CREDIT



In support of improving patient care, Mayo Clinic College of Medicine and Science is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC) to provide continuing education for the healthcare team.

**AMA:** Mayo Clinic College of Medicine and Science designates this live activity for a maximum of 16.5 *AMA PRA Category 1 Credits™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

**AOA:** This program has been accredited by the American Osteopathic Association for 16.5 credits of AOA Category 2-A.

**Other Health Care Professionals:** A certificate of attendance will be provided to other health care professionals for requesting credits in accordance with state nursing boards, specialty societies, or other professional associations.

# ECMO

## EXTRACORPOREAL MEMBRANE OXYGENATION SYMPOSIUM

Mayo Clinic Center for Procedural Innovation  
April 10–11, 2018 • Scottsdale, Arizona

### COURSE DESCRIPTION

This highly immersive hands-on workshop provides the latest techniques and technology surrounding the clinical use of Extracorporeal Membrane Oxygenation (ECMO). Through integrated clinical scenarios providers will apply the knowledge gained towards the initiation and management of ECMO on simulated cases of acute respiratory and hemodynamic failure. They will deepen their understanding of the applied physiology of both venovenous and venoarterial ECMO utilizing the highest fidelity simulation labs and its interaction with conventional life support treatments.



### LOCATION AND ACCOMMODATIONS

Please note that the course is held on Mayo Clinic’s Scottsdale campus. Visit the course website for more information and to make your room reservations. This activity is not held at The Westin Kierland Resort.

### LEARNING OBJECTIVES

Upon conclusion of this program, participants should be able to:

- Identify the components of the ECMO circuit
- Describe basic and advanced physiology of venovenous and venoarterial ECMO.
- Recognize major indications and contraindications of venovenous and venoarterial ECMO.
- Identify common problems and major complications of ECMO.
- Differentiate the interaction ECMO has on various patient organ systems.
- Comprehensively assess the ECMO patient with appropriate monitoring techniques.

### ECMO REGISTRATION – Limited Space Available

Register online at:

[CE.MAYO.EDU/ECMO2018](https://ce.mayo.edu/ecmo2018)

Registration Fee	On or Before Feb. 20	After Feb. 20
Registration	\$2,700 USD	\$2,900 USD

*No discounts offered. Fee includes all lectures, lab supplies, scrub usage, and meals during the workshop.*

*Visit the course website for more information on registering and our cancellation policy.*



# ECMO PROGRAM

The ECMO Program consists of rotations between Didactic lectures and Hands-on stations. The Hands-on stations consist of simulated manikins and live tissue. The program is designed so each participant will experience all stations and lectures.

## TUESDAY, APRIL 10, 2018

- 7:00 a.m. Registration and Breakfast
- 7:30 Opening Remarks
- 7:45 Introduction to Adult ECMO Physiology
- 8:15 Introduction to ECMO Circuits & Devices
- 8:45 Break
- 9:00 **SIMULTANEOUS SESSIONS**

### LECTURES:

- VV ECMO Indications & Patient Selection
- Hemodynamic Effects of VV ECMO
- Utility of Ultrasound with ECMO

### SIMULATIONS:

- Simulation 1
- Simulation 2
- Simulation 3

- 11:30 Lunch and Cannulation Session
- 1:10 p.m. **SIMULTANEOUS SESSIONS**

### LECTURES:

- Mechanical Ventilation on VV ECMO
- Pharmaceutical Considerations on ECMO
- Rheology and Oxygen Delivery on VV ECMO
- Bleeding, Thrombosis, & Hemolysis

### SIMULATIONS:

- Simulation 4
- Simulation 5
- Simulation 6

- 4:25 Review and Case Presentation
- 4:45 Adjourn

## WEDNESDAY, APRIL 11, 2018

- 7:00 a.m. Breakfast
- 7:25 VA ECMO Overview
- 8:00 **SIMULTANEOUS SESSIONS**

### LECTURES:

- Regional Perfusion and Oxygen Delivery on VA ECMO
- Bridging, Weaning, Decannulation
- Acute Complications of ECMO
- Post-Decannulation Management

### SIMULATIONS:

- Simulation 7
- Simulation 8
- Simulation 9

- 11:15 Lunch and Introduction to ECMO Lab
- 12:45 p.m. **SIMULTANEOUS SESSIONS**

### LECTURES:

- ECMO Referral and Transport
- ECMO Team Structure
- ECPR
- Ethics
- Value – Long Term Outcomes and Economics

### LABORATORY:

- Laboratory 1
- Laboratory 2
- Laboratory 3

- 5:40 Review, Questions & Answers
- 6:00 Adjourn

# ECMO FACULTY

## Mayo Clinic Course Directors

Bhavesh M. Patel, M.D.  
Patrick A. DeValeria, M.D.

## Mayo Clinic Faculty

Cory Alwardt, C.C.P.	Robert Ratzlaff, D.O.
Hannelisa Callisen, PA-C	Ayan Sen, M.D.
Ryan Craner, M.D.	

## Guest Faculty

Heidi Dalton, M.D.	D. Michael McMullan, M.D.
Don Granoski, R.R.T.	Thomas Preston, C.C.P.
Hussein Kanji, M.D.	Zack Shinar, M.D.
Laurance Lequier, M.D.	Amandeep Sidhu, C.C.P.

## Support Staff

Don Wilson, C.C.P.	Nichole Herr, RN
Jessey Lackey, C.S.F.A.	Stephanie Blakeman, RN
Lori Gushue, PA-C	Kathryn Hubbard, RN
Amanda Krumm, RN	Amelia Lowell, R.R.T.
William Pyles, RN	Julie Colquist, R.R.T.

# CREDIT

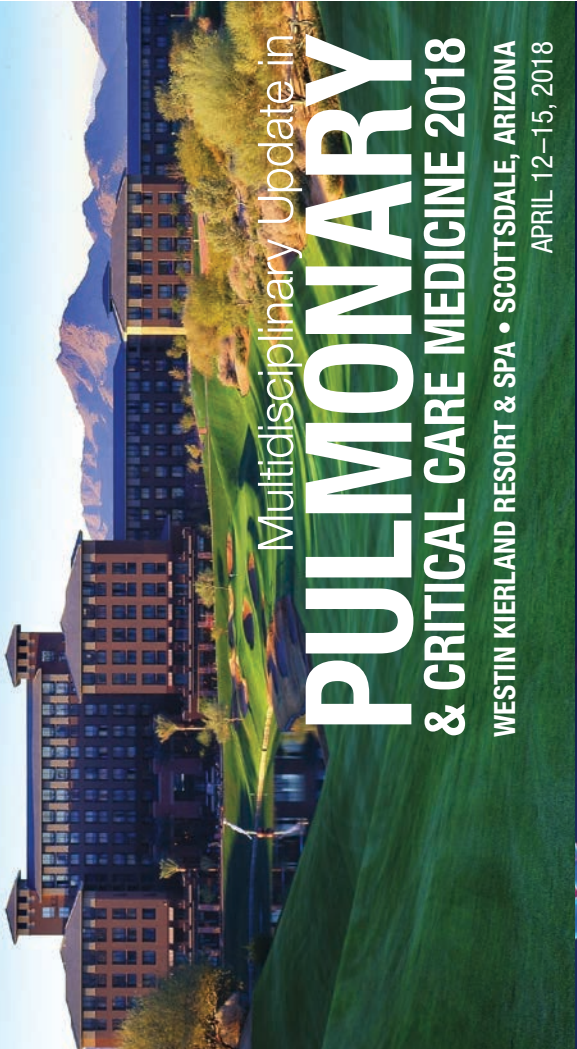


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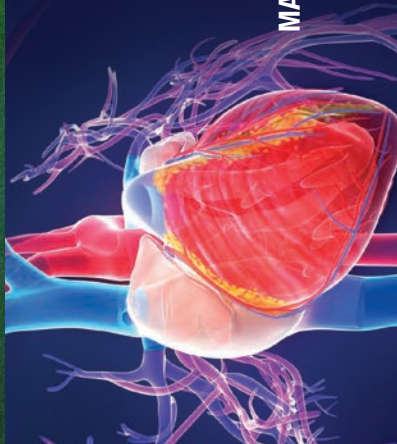


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OXYGENATION SYMPOSIUM

MAYO CLINIC COLLABORATIVE RESEARCH BUILDING  
SCOTTSDALE, ARIZONA

APRIL 10–11, 2018

## MAYO CLINIC

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