



**2019 UNIVERSITY OF IOWA**

# ECMO TRAINING COURSE

**NOVEMBER 12-15, 2019**

**UNIVERSITY OF IOWA HOSPITALS AND CLINICS**  
200 Hawkins Drive, Iowa City, IA

Provided by: University of Iowa Heart and Vascular Center, University of Iowa Health Care

**[medicine.uiowa.edu/cme](http://medicine.uiowa.edu/cme)**



# GENERAL INFORMATION

## INTENDED AUDIENCE

Physicians, Nurses, Respiratory Therapists, Chronic Care Professional and other health care providers who provide direct care for patients supported on extracorporeal membrane oxygenation devices.

## OBJECTIVES

Upon completion of this program the learner should be able to:

- Identify key concepts of ECMO methodology and physiology
- Demonstrate effectively how to use varying mechanical circulatory equipment used in ECMO
- Differentiate between multiple cannulation strategies and identify the risks associated with cannulation procedures
- Describe the process for selecting cannulas
- Identify and apply underlying principles necessary for proper patient management
- Outline the need for anticoagulation in ECMO
- Determine adequacy of ECMO support for both VA & VV ECMO
- List the methods for LV unloading
- Explain the role of vasoactive/inotropic medications in VA ECMO
- Interpret patient laboratory data and formulate appropriate interventions
- Describe weaning and trialing criteria for both VA & VV ECMO
- Recognize medical and mechanical emergency and identify strategies to prevent and/or manage
- Identify caregiver roles
- Integrate closed-loop communication
- List the benefits of awake ECMO
- List the benefits of mobility on ECMO

- Practice bedside technical and assessment skills
- Demonstrate an understanding of patient populations appropriate for ECMO support

## LOCATION

The training course will take place in the University of Iowa Hospitals and Clinics (200 Hawkins Drive, Iowa City, IA 52242).

- Didactics: 4999 JPP (the Heart and Vascular Center Conference Room)
- Simulations: 7th floor JPP in the Simulation Lab

## PARKING

For information on parking at University of Iowa Hospitals and Clinics go to: [uihc.org/parking-and-map](http://uihc.org/parking-and-map)

## HOTEL

Hilton Garden Inn Iowa City Downtown University  
328 S Clinton St  
Iowa City, IA 52240  
Phone: 319/248-6100

The room rate is \$139 excluding taxes. Registrants are responsible for making their own arrangements and may do so by contacting hotel reservations at (319) 248-6100. When making room reservations, be sure to state you are attending the “ECMO Training Program” in order to receive the special conference room rate. The conference rate will be available until October 12, 2019. There will be a free shuttle for the participants to take from the hotel to the hospital each day.

Book online at: [hiltongardeninn.hilton.com/en/gi/groups/personalized/I/IOWDOGI-ECO-20191111](http://hiltongardeninn.hilton.com/en/gi/groups/personalized/I/IOWDOGI-ECO-20191111)

## AIR TRANSPORTATION

- The Eastern Iowa (Cedar Rapids Airport) is located two miles west of I-380, approximately 20 miles north of Iowa City. Car rentals are available at the airport.
- The Quad Cities (Moline, Illinois Airport) is located approximately 55 miles east of Iowa City on I-74 just off I-80. Car rentals are available at the airport.

## GROUND TRANSPORTATION

For information on ground transportation from the Eastern Iowa Airport go to: [flycid.com/ground-transportation](http://flycid.com/ground-transportation)

## CONTINUING EDUCATION CREDIT

The University of Iowa Roy J. and Lucille A. Carver College of Medicine is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

**Physician:** The University of Iowa Roy J. and Lucille A. Carver College of Medicine designates this live activity for a maximum of 23.25 *AMA PRA Category 1 Credits™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

**Nurse:** 23.25 contact hours will be granted by University of Iowa Hospitals and Clinics Department of Nursing (IBN Approved Provider #34). Participants must attend the entire program to receive full credit.

Questions concerning nursing credits should be directed to the Nursing Clinical Education Center at (319) 356-4304.

Determination of educational content for this program and the selection of speakers are responsibilities of the program directors. Firms providing financial support did not have input in these areas.

**DISCLOSURE POLICY:** Everyone in a position to control the content of this educational activity will disclose to the CME provider and to attendees all relevant financial relationships with any commercial interest.

The University of Iowa prohibits discrimination in employment, educational programs, and activities on the basis of race, creed, color, religion, national origin, age, sex, pregnancy, disability, genetic information, status as a U.S. veteran, service in the U.S. military, sexual orientation, gender identity, associational preferences, or any other classification that deprives the person of consideration as an individual. The university also affirms its commitment to providing equal opportunities and equal access to university facilities. For additional information on nondiscrimination policies, contact the Director, Office of Equal Opportunity and Diversity, the University of Iowa, 202 Jessup Hall, Iowa City, IA, 52242-1316, 319-335-0705 (voice), 319-335-0697 (TDD), [diversity@uiowa.edu](mailto:diversity@uiowa.edu).

Individuals with disabilities are encouraged to attend all University of Iowa sponsored events. If you are a person with a disability who requires an accommodation in order to participate in this program, please contact the Continuing Medical Education Division in advance at 319-335-8599 or the ECMO Program at 319-356-3192.

FOR ADDITIONAL INFORMATION, CALL **319-356-3192**

# ECMO TRAINING COURSE

## AGENDA

### Tuesday, November 12, 2019

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**7:30 AM Registration**

Jennifer Crumley, MSN, RN

**8:00 Welcome, History, and Overview**

Jennifer Crumley, MSN, RN

**8:40 Introduction to ECMO**

Kevin Doerschug, MD

**9:20 Physiology of ECMO**

Gregory Schmidt, MD

**10:00 Break**

**10:20 VV ECMO and Respiratory Failure**

Kevin Doerschug, MD

**11:20 ECMO Components and Circuitry**

Kristina Rudolph, BSN, RN

**12:00 PM LUNCH**

**1:00 Introduction to Simulations**

Jennifer Crumley, MSN, RN

**1:20 Chaos Simulation/Debriefing**

Jennifer Crumley, MSN, RN  
Elizabeth Moore, MBA, RN, BSN  
Kristina Rudolph, BSN, RN

**2:00 Hands-On Circuit Review (Rotaflow/Cardiohelp/Centrimag)**

Jennifer Crumley, MSN, RN  
Kristina Rudolph, BSN, RN

**3:00 Break**

**3:15 Hands-On Circuit Review (Rotaflow/Cardiohelp/Centrimag)**

Jennifer Crumley, MSN, RN  
Kristina Rudolph, BSN, RN

**4:00 Adjourn**

### Wednesday, November 13, 2019

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**8:00 AM VA ECMO and Cardiac Failure**

Lovkesh Arora, MBBS

**8:40 Cannulation**

Sharon Beth Larson, DO, MS, FACOS

**9:20 Anticoagulation**

Archit Sharma, MBBS

**10:00 Break**

**10:20 Patient Management**

Kristina Rudolph, BSN, RN

**11:20 Case Reviews**

Jennifer Crumley, MSN, RN

**12:00 PM LUNCH**

**1:00 Hands-On: Pump Review**

Jennifer Crumley, MSN, RN  
Kristina Rudolph, BSN, RN

**1:30 Simulations (1-3)**

Jennifer Crumley, MSN, RN  
Kristina Rudolph, BSN, RN

**3:15 Break**

**3:30 Jeopardy**

Jennifer Crumley, MSN, RN  
Kristina Rudolph, BSN, RN

**4:00 Adjourn**

## Thursday, November 14, 2019

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### 8:00 AM Program Development

Elizabeth Moore, MBA, RN, BSN

### 8:40 Mobility and ECMO

Alex Mark, DPT

### 9:20 ECMO Emergencies

Jonathan Simmons, DO

### 10:00 Break

### 10:20 Case Reviews

Jennifer Crumley, MSN, RN

Kristina Rudolph, BSN, RN

### 11:20 Ethics

Aditya Badheka, MBBS, MS

### 12:00 PM LUNCH

### 1:00 Hands-On: Pump Review

Jennifer Crumley, MSN, RN

Kristina Rudolph, BSN, RN

### 1:30 Simulations (4-7)

Jennifer Crumley, MSN, RN

Kristina Rudolph, BSN, RN

### 3:15 Break

### 3:30 Jeopardy

Jennifer Crumley, MSN, RN

Kristina Rudolph, BSN, RN

### 4:00 Adjourn

## Friday, November 15, 2019

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### 8:00 AM Hands-On: Pump Review

Jennifer Crumley, MSN, RN

Kristina Rudolph, BSN, RN

### 8:30 Simulations (7-10)

Jennifer Crumley, MSN, RN

Kristina Rudolph, BSN, RN

### 12:00 PM LUNCH

### 1:00 Exam

## COURSE FACULTY



**Lovkesh Arora, MBBS**  
Clinical Associate Professor and  
ECMO Medical Director  
Department of Anesthesia



**Elizabeth A Moore, MBA,  
RN, BSN**  
Associate Director  
Heart and Vascular Center



**Aditya Badheka, MBBS, MS**  
Clinical Assistant Professor  
Stead Family Department of  
Pediatrics – Critical Care  
Medical Director, PICU



**Kristina Rudolph, BSN, RN**  
ECMO Course Coordinator  
Heart and Vascular Center



**Jennifer Crumley, MSN, RN**  
ECMO Course Coordinator  
Heart and Vascular Center



**Gregory Schmidt, MD**  
Professor  
Department of Internal Medicine  
– Pulmonary, Critical Care and  
Occupational Medicine  
Director, Critical Care Programs  
Associate Chief Medical Officer



**Kevin Doerschug, MD, MS**  
Clinical Professor  
Department of Internal Medicine -  
Pulmonary



**Archit Sharma, MBBS**  
Clinical Assistant Professor  
Department of Anesthesia –  
Cardiothoracic Anesthesia, Critical  
Care Medicine, and Transplant  
Anesthesia



**Sharon Beth Larson, DO,  
MS, FACOS**  
Clinical Assistant Professor and  
ECMO Surgical Director  
Department of Surgery-  
Cardiothoracic Surgery



**Jonathan Simmons, DO**  
Clinical Associate Professor  
Departments of Anesthesia and  
Emergency Medicine  
Surgical Director, CVICU  
Medical Director, Special Isolation  
Unit



**Alex Mark, DPT**  
Senior Physical Therapist  
Department of Rehabilitation  
Therapies

# REGISTRATION

**ECMO Training Course**

November 12-15, 2019

Print clearly

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

State/ Zip \_\_\_\_\_

Phone \_\_\_\_\_

E-mail \_\_\_\_\_

Company or Business Name \_\_\_\_\_

\_\_\_\_\_

Primary Degree \_\_\_\_\_

Specialty \_\_\_\_\_

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**For Office Use Only** PN 32487

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## REGISTRATION FEES

Includes all categories of fees, tickets for activities, meals, receptions, etc.

Full Registration \$2500	\$ _____
UI Employee Full Registration \$500	\$ _____
UI Employee Lecture Only \$300	\$ _____

## METHOD OF PAYMENT

- Enclosed is a check made payable to  
The University of Iowa in the amount of \$ \_\_\_\_\_

## TWO WAYS TO REGISTER



Online: [medicine.uiowa.edu/cme](http://medicine.uiowa.edu/cme) and click on Upcoming Programs



Mail (Checks Only):

University of Iowa Carver College of Medicine  
Continuing Medical Education Division  
100 Medicine Administration Building  
Iowa City, Iowa 52242-1101