



# **Inaugural Critical Care Virtual Conference**

## **SCCM Midwest Chapter**

**Saturday, August 29, 2020 (All times are CDT)**

8:30am - 9:00am: **Registration and Exhibit Hall**

9:00am - 9:15am: **President's Address:** Welcome, Introduction, Housekeeping Remarks  
*Girish Deshpande, MD*

9:15am - 10:00am: **Plenary Session: Viral Evolution - COVID 19**  
*Lewis Kaplan, MD, SCCM President*

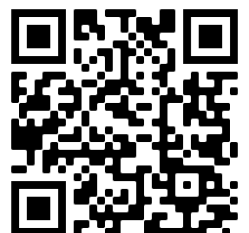
10:00am - 10:45am: **Coagulation Management and Immunotherapy in Patients with COVID-19**  
a. *Judi Jacobi, PharmD*  
b. *Rajat Kapoor, MD*

10:45am - 11:00am: **Break/Exhibit Hall**

11:00am - 12:00pm: **Breakout Sessions**

1. **Increasing Functional ICU Survivorship Through Early Mobility in Adult and Pediatric Patients:**
  - a. *Babar Ali Khan, MD*
  - b. *Sapna Kudchadkar, MD*
  - c. *Megan Kupferschmid, MSN, RN, CCRN*
2. **Advances in Neuromonitoring in Critically Ill Patients:**
  - a. *Lauren Koffman, DO*
  - b. *Deepak Nair, MD*
3. **ECMO: A Viable Option in SARS COViD-2 Pandemic:**
  - a. *Leon Eydelman, MD*
  - b. *Katherine Cashen, DO*
4. **Contemporary Issues in CRRT:**
  - a. *Kashif Qaseem, MD*
  - b. *Aaron Harthan, PharmD*

12:00pm - 12:45pm: **Lunch and Exhibit Hall**





12:45pm - 1:45pm: **Breakout Sessions**

1. **Delirium in the Adult and Pediatric ICUs – Similarities and Differences!**
  - a. *Babar Ali Khan, MD*
  - b. *Sean Barnes, MD*
  - c. *Megan Kupferschmid, MSN, RN, CCRN*
2. **VR/AR/XR: Just Jargon or New Paradigm:**
  - a. AR/VR/XR: What is it and is it Here for Real?: *Varsha Gharpure, MD*
  - b. AR/VR/XR: Role in Medical Education: *David Axelrod, MD*
  - c. Role of Virtual Reality in Surgical Planning: *Matthew Bramlet, MD*
3. **COVID-19 in Pediatric Patients: Cases and Multisystem Inflammatory Syndrome:**
  - a. *Prachi Syngal, MD*
  - b. *John S. Giuliano, MD*
4. **Pulmonary challenges in the ICU:**
  - a. *Abdul Hamid Alraiyes, MD*
  - b. *Bjoern Toennes, MD*
  - c. *Bhagat Aulakh, MD*

1:45pm - 2:30pm: **Abstract/Poster Presentations**

2:30pm – 2:45pm: **Break/Exhibit Hall**

2:45pm - 3:30pm: **Star Research Presentations**

3:30pm - 4:00pm: **General Quiz**

4:00pm – 5:00pm: **Social Hour/Networking**

Instructions for Evaluation Forms and Submission of CME/CEU Hours

**Click on the following link to join Midwest Chapter Membership at SCCM:**

<https://www.sccm.org/Member-Center/Chapters/Midwest-Chapter>

**Click on the following link to register for Virtual Conference (use SCCM member number for MWC membership number):** <https://jumpsimulation.org/sccm2020>

*We would like to thank University of Illinois College of Medicine at Peoria, OSF HealthCare Children's Hospital of Illinois, and Jump Trading Simulation Education Center for their technical support. This program is approved for 6 hours of CME/CEU per University of Illinois College of Medicine at Peoria.*





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### Speakers

#### President's Address

#### Plenary Session: Viral Evolution: COVID-19



**Girish Deshpande, MD, FCCM**

Professor of Clinical Pediatrics, Critical Care Medicine, Department of Pediatrics, University of Illinois College of Medicine at Peoria, IL  
Pediatric Intensivist, OSF Healthcare Children's Hospital of Illinois, Peoria, IL  
PFCCS Director  
President and CEO, SCCM Midwest Chapter



**Lewis J. Kaplan, MD, FACS, FCCM, FCCP**

Section Chief, Surgical Critical Care, Corporal Michael J Crescenz VAMC Surgical Services, Philadelphia, PA  
Professor of Surgery, Department of Surgery, Division of Trauma, Surgical Critical Care, and Emergency Surgery, Perelman School of Medicine of the University of Pennsylvania, Philadelphia, PA  
President, SCCM

#### Lecture: Coagulation Management and Immunotherapy in Patients with COVID-19



**Judith Jacobi, PharmD, FCCP, MCCM, BCCCP**

Senior Consultant, Visante, Inc., St. Paul, MN  
Bard-BD Voices of Vascular Collaborator, focusing on appropriate administration of medications using various intravascular devices, clinical pharmacy practice models, and COVID-19 therapy.

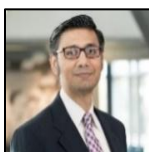


**Rajat Kapoor MD, MBA, FCCP**

Medical Staff Treasurer, Medical Staff Executive Council. Academic Health Centre, Indiana University Health, Indianapolis, IN  
Member of the Practice operations Committee for Indiana University Health Physicians  
Respiratory Care Medical Director – Adult Academic Health Center. Indiana University Health, Indianapolis, IN

#### Pre Lunch Simultaneous Break-Out Sessions

##### 1. Increasing Functional ICU Survivorship through Early Mobility in Adult and Pediatric Patients



**Babar Ali Khan, MD, MS**

Associate Professor of Medicine with Tenure, Department of Medicine, Indiana University School of Medicine, Indianapolis, IN  
President American Delirium Society  
Associate Director IU-Center for Aging Research,  
Director, Critical Care Recovery Center,  
Eskenazi Health, Indianapolis, IN



**Megan Kupferschmid, MSN, RN, P-CCRN**

Clinical Nurse Educator, Pediatric Intensive Care Unit  
OSF HealthCare Children's Hospital of Illinois, Peoria, IL



**Sapna Kudchadkar, MD, PhD**

Associate Professor, Department of Anesthesiology & Critical Care Medicine, and Department of Physical Medicine and Rehabilitation, Johns Hopkins University School of Medicine, Baltimore, MD  
Pediatric Intensivist and Anesthesiologist, Johns Hopkins Hospital, Baltimore, MD



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### Speakers

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#### 2. Neuro Critical Care: Advances in Neuro-monitoring in Critically Ill Patients

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**Lauren Koffman, DO, MS**

Neurointensivist, Assistant Professor, Neurology and Neurosurgery  
Rush University Medical Center, Chicago, IL



**Deepak Nair, MD**

Neurointensivist, Vascular and General Neurologist  
OSF Saint Francis Medical Center, Peoria, IL  
Clinical Associate Professor,  
University of Illinois College of Medicine at Peoria, IL

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#### 3. Advanced Life Support Technologies: ECMO: A viable Option in SARS COVID-2 Pandemic

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**Leon Eydelman, MD**

Advocate Intensivist Group, Oak Lawn, IL and Barrington, IL  
Advocate Christ Medical Center Emergency Department, Oak Lawn, IL



**Katherine Cashen, DO**

Medical Director, Pediatric Cardiac Intensive Care Unit,  
Children's Hospital of Michigan, Detroit, MI  
Associate Professor (Clinical Educator Track), Department of  
Pediatrics, Division of Critical Care Medicine,  
Wayne State University School of Medicine, Detroit, MI

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#### 4. Nephrology Critical Care: Contemporary Issues in CRRT

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**Aaron Harthan, PharmD, BCPPS**

Pediatric Clinical Pharmacist, OSF Saint Francis Medical Center  
Children's Hospital of Illinois, Peoria, IL



**Kashif Qaseem, MD**

Intensivist at HSHS St. John's Hospital, Springfield, IL

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### Post Lunch Simultaneous Break-Out Sessions

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#### 1. Pediatric Critical Care: COVID-19 in Pediatric Patients: Cases and Multisystem Inflammatory Syndrome



**Prachi Syngal, MD**

Assistant Professor of Clinical Pediatrics, Division of Critical Care  
Medicine, Department of Pediatrics, Division Critical Care, University of  
Illinois College Of Medicine at Peoria, IL  
Pediatric Intensivist, OSF Healthcare Children's Hospital of Illinois,  
Peoria, IL



**John S. Giuliano, MD**

Associate Professor, Department of Pediatrics, Section Critical Care,  
Clinician Educator Track, Yale University School of Medicine, New  
Haven, CT  
Medical Director, Pediatric Transport Services, Associate Medical  
Director - Pediatric Extracorporeal Membrane Oxygenation (ECMO)  
Services, Associate Medical Director - Pediatric Intensive Care Unit,  
and Program Director, Pediatric Critical Care Fellowship Program,  
Yale-New Haven Children's Hospital, New Haven, CT

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## 2. Disruptive technologies: AR/VR/XR - Just Jargon or New Paradigm

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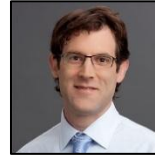
### VR/AR/XR: What is it and is it here for Real?



**Varsha Gharpure, MD, FAAP**

Medical Director, PICU, Edward Hospital, Naperville, IL  
Pediatric Intensivist, Advocate Children's Hospital, IL  
Clinical Assistant Professor, Department of Pediatrics, Chicago  
Medical School, Rosalind Franklin University of Medicine and Science,  
North Chicago, IL  
Treasurer, SCCM Midwest Chapter  
Vice Chair, PFCCS Course

### AR/VR/XR: Role in Medical Education



**David Axelrod, MD**

Betty Irene Moore Children's Heart Center,  
Lucile Packard Children's Hospital Stanford, Palo Alto, CA  
Clinical Associate Professor, Department of Pediatrics, Division of  
Pediatric Cardiology,  
Stanford University School of Medicine, Palo Alto, CA

### Role of Virtual Reality in Surgical Planning



**Matthew Bramlet, MD**

Director, Advanced Imaging and Modeling Jump Trading Simulation  
and Education Center  
Director, Congenital Cardiac MRI, Children's Hospital of Illinois  
University of Illinois College of Medicine at Peoria, IL  
University of Illinois College of Engineering, Urbana Champaign, IL  
Children's Hospital of Illinois Medical Group, Pediatric Cardiology, OSF  
Saint Francis Medical Center Peoria, IL

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## 3. Delirium in the Adult and Pediatric ICU's – Similarities and Differences!

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**Babar Ali Khan, MD, MS**

Associate Professor of Medicine with Tenure, Department of Medicine,  
Indiana University School of Medicine, Indianapolis, IN  
Associate Director IU-Center for Aging Research,  
Director, Critical Care Recovery Center,  
Eskenazi Health, Indianapolis, IN  
President American Delirium Society



**Sean Barnes, MD, MBA**

Assistant Professor, Department of Anesthesiology and Critical Care  
Medicine, Division of Pediatric Anesthesiology and Critical Care  
Medicine, Johns Hopkins University School of Medicine, Baltimore, MD  
Pediatric Cardiac Anesthesiologist and Pediatric Cardiac Intensivist  
Johns Hopkins Hospital, Baltimore, MD



**Megan Kupferschmid, MSN, RN, P-CCRN**

Clinical Nurse Educator, Pediatric Intensive Care Unit  
OSF HealthCare Children's Hospital of Illinois, Peoria, IL

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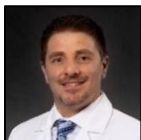
August 29, 2020

### Speakers

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#### 4. Pulmonary Critical Care: Pulmonary Challenges in the ICU

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**Abdul Hamid Alraiyes, MD, FCCP**

Associate Professor, Department of Internal Medicine, Rosalind Franklin University of Medicine and Science, North Chicago, IL  
Director of Interventional Pulmonology and Critical Care Medicine, Cancer Treatment Center of America, Zion, IL



**Bjoern Toennes, MD**

Staff Physician, Advanced Heart Failure, Transplantation, and Critical Care Cardiology, Sydella and Arnold Miller Family Heart, Vascular and Thoracic Institute Cleveland Clinic Foundation, Cleveland, OH  
Clinical Assistant Professor of Anesthesiology at Cleveland Clinic Lerner College of Medicine, Cleveland, OH



**Bhagat Aulakh, MD, FCCP**

Illinois Specialty Physician Services, Illinois Lung & Critical Care Institute  
Medical Director, Medical Intensive Care Unit, OSF Saint Francis Medical Center, Peoria, IL  
Mentorship Director, Advanced Nurse Practitioner program, University of Illinois - Chicago at Peoria, IL  
Vice President, SCCM Midwest Chapter

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#### Critical Care Jeopardy

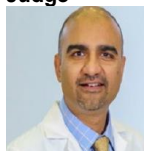
**Moderator**



**Padmaraj Duruvii**

Fellow – Advanced Heart Failure and Transplant Cardiology  
Medical College of Wisconsin, Milwaukee, WI  
Co-secretary, SCCM Midwest Chapter

**Judge**



**Muhammad Ali Javed, MBBS, FCCP**

Pulm, CCM, Neuro-CCM faculty, Adult Critical Care, Mercy Hospital, St Louis, MO  
Adjunct Assistant Professor of Medicine,  
Division of Pulmonary and Critical Care Medicine, St Louis University, St Louis, MO

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## Objectives

### **Viral Evolution: Covid-19**

**Lewis Kaplan, MD**

1. Discuss changes in the clinical approach to COVID-19 patient care
2. Elaborate controversies in caring for SARS-CoV-2 (+) and (-) patients within a healthcare facility
3. Articulate the role of medical professional organizations in helping shape care, facility preparedness, and clinical information sharing during a pandemic
4. Compare and contrast evolving management practices for future pandemic care

### **Coagulation management and Immunotherapy in patients with COVID-19**

**Judi Jacobi, PharmD & Rajat Kapoor, MD**

1. Describe coagulopathy in COVID-19 and the role of TEG for diagnosis.
2. Create an anticoagulation plan for a critical care patient with COVID-19 pneumonia.
3. Explain the inflammatory mechanisms that create a cytokine storm in a COVID-19 patient.
4. Compare anti-inflammatory therapies and their risk/benefit in COVID-19 with cytokine storm.

### **Increasing Functional ICU Survivorship through Early Mobility in Adult and Pediatric Patients**

**Babar Ali Khan, MD**

1. Describe functional, cognitive and psychological complications that constitute the post-intensive care syndrome (PICS)
2. Describe interventions including the ABCDEF bundle to reduce the burden of functional impairments
3. Describe newer models of care to improve frailty post ICU discharge

**Megan Kupferschmid, RN**

1. Describe the process of implementing an early mobility program in a pediatric ICU
2. Understand the barriers to implementation of an early mobility program
3. Evaluate the outcomes of implementation of an early mobility program

**Sapna Kudchadkar, MD**

1. Discuss the research/evidence to support early mobility in pediatric patients
2. Describe the benefits of early mobility among pediatric patients
3. Evaluate the long-term benefits of early mobility in pediatric patients

### **Advances in Neuro-monitoring in Critically Ill Patients**

**Lauren Koffman, DO**

1. Describe the new technologies in monitoring horizon for critically ill neurological patients
2. Brief review of literature behind these technology
3. Discuss personalization of care via monitoring methods

**Deepak Nair, MD**

1. Review normal cerebral anatomy & physiology.
2. Describe pathophysiology of the brain in sepsis.
3. Discuss the neurologic manifestations of COVID-19

### **ECMO: A viable Option in SARS COVID-2 Pandemic**

**Leon Eydelman, MD**

1. Discuss guidelines for ECMO in COVID-19 patients.
2. Assess outcomes of COVID-19 patients treated with ECMO.
3. Understand challenges and risks of providing ECMO in the setting of a viral pandemic.

**Katherine Cashen, DO**

1. List indications based on ELSO guidance for active COVID 19 respiratory infection in pediatric patients.
2. Describe indications for MIS-C pediatric patients.
3. Review management challenges (hypercoagulable state, challenges in care staffing).

### **Contemporary Issues in CRRT**

**Aaron Harthan, PharmD**

1. Describe the changes in medication clearance for a patient on CRRT.
2. List medications impacted by CRRT.
3. Recommend changes to the pharmacotherapeutic regimen for a patient on CRRT.

**Kashif Qaseem, MD**

1. Review recent update in literature in use of CRRT
2. Describe challenges in CRRT in the era of COVID-19 (appropriate use/rationing).
3. Discuss methods to overcome the challenges in the era of CRRT.





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### Objectives

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#### **COVID-19 in Pediatric Patients: Cases and Multisystem Inflammatory Syndrome**

**Prachi Syngal, MD**

1. Timeline of cases and reporting
2. Review of cases and reporting
3. Epidemiology

**John S. Guiliano, MD**

1. Comparison to Kawasaki's disease
2. Treatment options

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#### **AR/VR/XR - Just Jargon or New Paradigm**

**AR/VR/XR: What is it and Is it Here for Real?**

**Varsha Gharpure, MD**

1. Describe basic concepts of various reality technologies.
2. Recognize how 3-D technologies are changing landscape of medicine.
3. Understand practical challenges in use of these technologies.

**AR/VR/XR: Role in Medical Education**

**David Axelrod, MD**

1. Understand role of VR/AR/XR in the educational programs and new curricula.
2. Identify the key hurdles in implementation and ways to overcome modifiable obstacles.
3. Understand role of collaboration between clinicians and industry to build content.

**Role of Virtual Reality in Surgical Planning**

**Matthew Bramlet, MD**

1. Identify surgical cases where VR may be helpful.
2. Describe the process of segmentation.
3. Describe the utility of VR in surgical planning.
4. Discuss how mental representations and schema tie VR to surgical planning.

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#### **Delirium in the Adult and Pediatric ICU's – Similarities and Differences!**

**Babar Ali Khan, MD**

1. Define the clinical characteristics of delirium in adult patients
2. Describe the application of adult delirium screening tools
3. Describe the long-term effects of delirium on adult patients

**Sean Barnes, MD**

1. Understand how pediatric delirium phenotype differs from adult delirium
2. Describe the application of pediatric delirium screening tools
3. Describe the long-term effects of delirium on pediatric patients

**Megan Kupferschmid, RN**

1. Describe the process of implementing a delirium screening tool in a pediatric ICU
2. Understand the barriers to implementation of a delirium screening tool
3. Evaluate the outcomes of implementation of a delirium screening tool

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#### **Pulmonary Challenges in the ICU**

**Abdul Hamid Alraiyes, MD**

1. Describe the role of bronchoscopy in diffuse lung disease
2. Describe bronchoscopic findings in common pulmonary diseases in the ICU
3. Discuss management of massive hemoptysis in the ICU

**Bjoern Toennes, MD**

1. Describe basics of heart lung interactions.
2. Differences in heart lung interaction in spontaneous respiration and positive pressure ventilation.
3. Discuss how heart lung interactions affect our day to day critical care monitoring.

**Bhagat Aulakh, MD**

1. Describe differences in ARDS from COVID 19 compared to other causes of ARDS.
2. Describe how ARDS is managed differently in ARDS due to COVID-19.
3. Describe mechanical ventilation strategies in respiratory failure due to COVID-19.

