



# Mechanical Ventilation

August 23-25, 2023

Program Schedule for In-Person Attendees

*\*All times listed CENTRAL time zone.*

## Wednesday, August 23, 2023 Pre-Conference Workshop

7:00 a.m.	Registration and Continental Breakfast
8:00 a.m.	Respiratory Physiology and Pulmonary Mechanics
8:45 a.m.	Ventilator Modes
9:30 a.m.	Break / Refreshments
10:00 a.m.	Intro to Ventilator Waveforms
10:45 a.m.	Basic Mechanical Ventilation Strategies – How to Manage and Troubleshoot
11:30 a.m.	Pre-Conference Adjourns Lunch

## Wednesday, August 23, 2023 General Session

11:30 a.m.	Registration and Lunch
12:15 p.m.	Welcome, Announcements, and Conference Overview
Lectures: Basic Physiologic Principles – Introduction to Mechanical Ventilation and ARDS	
12:30 p.m.	A Short History of Mechanical Ventilation
1:00 p.m.	ARDS: Redefine? Time to Abandon? Are We Asking the Right Questions?
1:30 p.m.	What Have We Learned from Animal Models of VILI?
2:00 p.m.	Basic Modes of Ventilation: Pressure vs. Flow Regulation
2:30 p.m.	Break and Exhibits
3:00 – 4:30 p.m. Breakout Sessions: Intensive Tutorials, Case Discussions, Introductory Workshops	

*Select ONE of these sessions (90 minutes):*

### **Intensive Tutorials (90 minutes):**

1. Lung Protective Mechanical Ventilation: The role of PEEP Today-Pros & Cons
2. Advanced Options and Non-standard Modes: Does the Mode Make a Difference?
3. The Golden Hour of Mechanical Ventilation: Transitioning Respiratory Care from the Emergency Department to the ICU
4. “Catch The Wave” – Wave Form Analysis and Patient-Ventilator Dyssynchrony

*Or select TWO of the following, 45 minutes each*

**Case Discussions (45 minutes):**

5. A Systematic Approach to Refractory Hypoxemia – The Mayo Model
6. Inability to Ventilate – Airway Obstruction and High Airway Pressures
7. Taking Ownership of Invasive and Noninvasive Ventilation Devices –How to Manage and Troubleshoot

**Introductory Workshops (45 minutes):**

8. The ABC's of Prone Positioning: When, Why and How
9. Ventilation Adjuncts – Tubes, Aerosols and Clearance
10. Lung Recruitment and Setting PEEP: Is My Patient's Lung Recrutable?

4:30 p.m.	Get to Know the Experts – Q&A Session
5:00 p.m.	Reception

**Thursday, August 24, 2023**

7:00 a.m.	Continental Breakfast
Lectures: Advanced Mechanical Ventilatory Support and Cardiopulmonary Interactions	
8:00 a.m.	Physiology-guided Management of Hemodynamics in ARDS
8:30 a.m.	Practical Approach to Mechanical Ventilation during ECMO –Why and How?
9:00 a.m.	Cardiopulmonary Interactions During ECMO –Thoughtful Vasopressor Use
9:30 a.m.	Management of ARDS: What is Really Evidence-Based?
10:00 a.m.	Break and Exhibits
10:30 – 12:00 p.m. Breakout Sessions: Intensive Tutorials, Case Discussions, Introductory Workshops	
<p><i>Select ONE of these sessions (90 minutes):</i></p> <p><b>Intensive Tutorials (90 minutes):</b></p> <ol style="list-style-type: none"> <li>1. Mechanical Ventilation Guided by Esophageal Pressure</li> <li>2. Monitoring Diaphragmatic Activity and Respiratory Efforts</li> <li>3. Mobilizing the Mechanically Ventilated Patient on ECMO</li> <li>4. Airway Management and Ventilatory Support in Pediatrics</li> </ol>	
<p><i>Or select TWO of the following, 45 minutes each</i></p> <p><b>Case Discussions (45 minutes):</b></p> <ol style="list-style-type: none"> <li>5. Managing the Obese Patient: Obesity and Other Disorders of the Chest Wall</li> <li>6. Integration of Pulmonary Mechanics –Transpulmonary and Airway Driving Pressure</li> <li>7. Ventilator Use at Home</li> </ol> <p><b>Introductory Workshops (45 minutes):</b></p> <ol style="list-style-type: none"> <li>8. Controlled Vs. Spontaneous Ventilation in ARDS: When and How?</li> <li>9. Lungs in a Box: Ex Vivo Lung Perfusion (EVLV) for Lung Transplantation</li> <li>10. “Catch the Wave” – Wave Form Analysis and Patient-Ventilator Dyssynchrony</li> </ol>	
12:00 p.m.	Lunch
Lectures: Monitoring During Mechanical Ventilation	
1:00 p.m.	Monitoring of Pulmonary Mechanics During Invasive and Noninvasive Ventilatory Support
1:30 p.m.	How Do I Monitor Respiratory Effort to Avoid Patient Self-Inflicted Lung Injury (PSILI)?
2:00 p.m.	Driving Pressure: Defining the Range and Clinical Implications
2:30 p.m.	Which Component of Mechanical Power is Most Important in Causing VILI?
3:00 p.m.	Break and Exhibits

3:30 – 5:00 p.m.	
Breakout Sessions: Intensive Tutorials, Case Discussions, Introductory Workshops	
<p><i>Select ONE of these sessions (90 minutes):</i></p> <p><b>Intensive Tutorials (90 minutes):</b></p> <ol style="list-style-type: none"> <li>1. How to Optimize Mechanical Power to avoid VILI: A Practical Workshop</li> <li>2. Extra-Corporeal Life Support –Indications, Initial Evaluation and Implementation</li> <li>3. The Golden Hour of Mechanical Ventilation: Transitioning Respiratory Care from the Emergency Department to the ICU</li> <li>4. Refractory Hypoxemia –A Systematic Approach</li> </ol>	
Or select TWO of the following, 45 minutes each	
<p><b>Case Discussions (45 minutes):</b></p> <ol style="list-style-type: none"> <li>5. Taking Ownership of Invasive and Noninvasive Ventilation Devices – How to Manage and Troubleshoot</li> <li>6. Managing the Obese Patient: Obesity and Other Disorders of the Chest Wall</li> <li>7. Non-Invasive Ventilatory Support in ARDS</li> </ol> <p><b>Introductory Workshops (45 minutes):</b></p> <ol style="list-style-type: none"> <li>8. The ABC’s of Prone Positioning: When, Why and How</li> <li>9. Bedside Assessment of Auto-PEEP, and Lung Stress and Strain – What Should We Monitor in the Ventilated Patient and When?</li> <li>10. Setting PEEP and Bedside Assessment of Lung Recruitability</li> </ol>	
5:00 p.m.	Get to Know the Experts – Q&A
5:30 p.m.	Adjourn

## Friday, August 25, 2023

7:00 a.m.	Continental Breakfast
Lectures: Ventilation	
8:00 a.m.	Ethical Considerations of Mechanical Ventilation
8:30 a.m.	Liberation from Mechanical Ventilation
9:00 a.m.	HFNC and NIV in Hypoxemic-Hypercapnic Respiratory Failure: Optimizing NIV Settings
9:30 a.m.	Long-Term Mechanical Ventilation
10:00 a.m.	Break and Exhibits
10:30 – 12:00 p.m. Breakout Sessions: Intensive Tutorials, Case Discussions, Introductory Workshops	
<p><i>Select ONE of these sessions (90 minutes):</i></p> <p><b>Intensive Tutorials (90 minutes):</b></p> <ol style="list-style-type: none"> <li>How to Optimize Mechanical Power to Avoid VILI: A Practical Workshop</li> <li>Mechanical Ventilation in Asthma and COPD</li> <li>Extra-Corporeal Life Support – Indications, Initial Evaluation and Implementation</li> <li>Mechanical Ventilation Guided by Esophageal Pressure</li> </ol>	
<p><i>Or select TWO of the following, 45 minutes each</i></p> <p><b>Case Discussions (45 minutes):</b></p> <ol style="list-style-type: none"> <li>Integration of Pulmonary Mechanics –Transpulmonary and Airway Driving Pressures</li> <li>Non-Invasive Ventilatory Support in ARDS</li> <li>Taking Ownership of Invasive and Noninvasive Ventilation Devices – How to Manage and Troubleshoot</li> </ol> <p><b>Introductory Workshops (45 minutes):</b></p> <ol style="list-style-type: none"> <li>Controlled Vs. Spontaneous Ventilation in ARDS: When and How?</li> <li>Lungs in a Box: Ex vivo lung perfusion (EVLP) for Lung Transplantation</li> <li>Setting PEEP and Bedside Assessment of Lung Recruitability</li> </ol>	
12:00 p.m.	Lunch
Master Class Series: Advances in Respiratory Failure Management	
12:30 p.m.	Advanced Mechanical Ventilation Monitoring: Regional Ventilation and Diaphragmatic Function
1:00 p.m.	Cardiopulmonary Interactions in Patients with Complex Congenital Heart Disease
1:30 p.m.	Mechanical Ventilation in Pediatric and Neonatal Patients: Little Lungs, Little Differences?
2:00 p.m.	Mechanical Ventilation in the Operating Room
2:30 p.m.	Break and Exhibits
3:00 p.m.	Positioning and the Compromised Respiratory System – Who Gets to be Prone
3:30 p.m.	Pros & Cons Debate: Airway Pressure Release Ventilation (APRV) in ARDS
4:00 p.m.	Mechanical Power and Positive End-Expiratory Pressure – What is the Real Mechanical Cause of VILI?
4:30 p.m.	Get to Know the Experts – Q&A
5:00 p.m.	Adjourn