

# IDCCM Kavanagh Physiology Rounds

Tuesday February 11, 2025

4:00 pm - 5:00 pm

## Theme: Applied Respiratory Physiology

### "Expiratory Pause Maneuver to Assess Respiratory Effort: The What Why and How"?



**Richard H Kallet MS, RRT, FCCM**

Director of Clinical Research and Quality Improvement (retired)

Department of Anesthesia: Respiratory Care Division

University of California, San Francisco at

San Francisco General Hospital

#### Objectives:

1. Describe how an expiratory pause maneuver is performed.
2. Explain why measuring inspiratory occlusion pressure is important in the management of mechanically-ventilated patients with acute respiratory failure
3. List the two sources of respiratory muscle injury and corresponding occlusion pressure targets that might help reduce or prevent injury during acute respiratory failure

**Chair: Georgiana Roman-Sarita**

## How to join:

#### Online

Join Zoom Meeting

<https://ca01web.zoom.us/j/67980923801?pwd=PQUqz5B0o0vP21xqXYgmjM2BhDDzjb.1>

Meeting ID: 679 8092 3801

Passcode: 702455

# IDCCM Kavanagh Physiology Rounds

Tuesday March 25, 2025

4:00 pm - 5:00 pm (Hybrid)

## Theme: Applied Respiratory Physiology

**“A journey of exploration to help transform monitoring into improved care”**



### Dr. Andrew Seely

Division Head - Thoracic Surgery

Vice-Chair Research

Professor, Department of Surgery

Scientist - Clinical Epidemiology Program

University of Ottawa

### Objectives:

1. Explore how continuous adverse event monitoring enables positive deviance seminars that improve surgical care
2. Uncover means to transform continuous monitoring into predictive decision support to improve acute care
3. Explore the relationships between physiological variability, system complexity and human health
4. Discover the central role of non-equilibrium physics and entropy production within human health

**Chair: Dr. Niall Ferguson**

## How to join:

### In person location:

Toronto General Hospital  
 MaRS Building - 9<sup>th</sup> floor, Conference Room 9006  
 661 University Ave  
 Toronto, Ontario, M5G 1M1

### Online:

The MSTeams info is as follows:

**[Join the meeting now](#)**

Meeting ID: 245 635 893 455

Passcode: nh7Ur6w5

# IDCCM Kavanagh Physiology Rounds

Tuesday April 22, 2025

4:00 pm - 5:00 pm

**Theme: Applied Respiratory Physiology**

**"Physiology of sodium bicarbonate administration in critically ill patients"?**



**Ary Serpa Neto, MD**

Senior Research Fellow,  
Australian and New Zealand Intensive Care Research Centre (ANZIC-RC)  
Monash University, Melbourne, Australia  
Associate Professor, Department of Critical Care Medicine,  
Hospital Israelita Albert Einstein, Sao Paulo, Brazil

## Objectives:

1. Understand the Impact of Metabolic Acidosis and Acidaemia in Critically Ill Patients
2. Understand the Physiological Effects of Sodium Bicarbonate
3. Assess the Clinical Indications and Limitations of Sodium Bicarbonate in Critical Care

**Chair: Jan Friedrich**

## How to join:

### Online

Join Zoom Meeting

<https://ca01web.zoom.us/j/67523020346?pwd=Ts8PZnB0xavbzDyLM5qvjwp97rbcov.1>

Meeting ID: 675 2302 0346

Passcode: 124601

# IDCCM Kavanagh Physiology Rounds

Tuesday May 13, 2025

4:00 pm - 5:00 pm

## Theme: Applied Respiratory Physiology

### “The Role of the Diaphragm and Extra-Diaphragmatic Respiratory Muscles in Patients with Prolonged Weaning from Mechanical Ventilation”



**Annia Schreiber, MD**

Postgraduate Research Fellow

University of Toronto

#### Objectives:

1. Describe the key inspiratory and expiratory muscles involved in breathing in ICU patients, with an emphasis on extra-diaphragmatic muscles
2. Explore how the structure, activity, and coordination of these muscles evolve in ventilator-dependent patients
3. Examine their role, especially in the context of weaning, and their potential as indicators of readiness for liberation from mechanical ventilation
4. Discuss how muscle-specific dysfunction and asynchrony may predict weaning outcomes and represent potential targets for tailored rehabilitation strategies

**Chair: Dr. Alberto Goffi**

## How to join:

Join Zoom Meeting

<https://ca01web.zoom.us/j/62492448689?pwd=jBhh3crE5mrbsg1tD27jVvb9wWH85c.1>

**Meeting ID:** 624 9244 8689

**Passcode:** 840057

# IDCCM Kavanagh Physiology Rounds

Tuesday June 10, 2025

4:00 pm - 5:00 pm

## Theme: Applied Respiratory Physiology

### “Dynamic Lung Resistance as a Key Determinant of Dynamic Factors of Lung Injury in Acute Hypoxemic Respiratory Failure”



**Andrea Castellví-Font, MD**

Postdoctoral Research Fellow, PRACTICAL Platform Trial

Toronto General Research Institute

Toronto General Hospital | University Health Network

#### Objectives:

1. Understand the role of dynamic lung resistance during mechanical ventilation in patients with acute hypoxemic respiratory failure (AHRF).
2. Explore how dynamic lung resistance contributes to dynamic factors of lung injury in AHRF.
3. Discuss the potential role of PEEP in mitigating the effects of elevated dynamic lung resistance.

Chair: TBD

## How to join:

Join Zoom Meeting

<https://ca01web.zoom.us/j/66385615885?pwd=mzXz1kZtnRYfenkhsmuKP1kRpa3dnQ.1>

Meeting ID: 663 8561 5885

Passcode: 404371