

2023 UPDATE ON PRINCIPLES AND PRACTICE OF MECHANICAL VENTILATION WORKSHOP June 7 The Old Mill, Toronto

At the end of this workshop participants will be able to:

- describe basic principles of patient-ventilator interactions, including respiratory mechanics, patient-ventilator synchrony, and control of breathing;
- apply basic and advanced principles of respiratory monitoring for difficult to ventilate/oxygenate patients, with a focus on PEEP and recruitment optimization, and respiratory drive assessment;
- describe management options in patients experiencing difficult liberation from mechanical ventilation.

This event is an Accredited Group Learning Activity (Section 1) as defined by the Maintenance of Certification Program of the Royal College of Physicians and Surgeons of Canada, and approved by Continuing Professional Development, Schulich School of Medicine & Dentistry, Western University. You may claim a maximum of 3.5 hours (credits are automatically calculated).

Each participant should claim only those hours of credit that he/she actually spent participating in the educational program.

Time	Session	Speaker	Location
12:00 p.m 1:00 p.m.	Registration Check-In		
1:00 p.m. – 1:15 p.m.	Welcome and Introductions	Alberto Goffi and Thomas Piraino	Brule A
1:15 p.m. – 1:45 p.m.	 The Equation of Motion and Respiratory Mechanics At the end of this session, participants will be able to: describe the overall goal of mechanical ventilation; review the role of compliance and resistance in setting the ventilator; review the importance of breath timing for various modes; and discuss suggested ventilator settings and how to monitor the patients for required changes. 	Thomas Piraino	Brule A

A minimum of 25% of this program is dedicated to participant interaction.



1:45 p.m. – 2:15 p.m.	 Diagnosing and Managing Patient-Ventilator Dyssynchrony At the end of this session, participants will be able to: discuss the definition, physiological and clinical relevance of Patient-Ventilator Dyssynchronies analyze the physiological principles that underly Patient-Ventilator Dyssynchronies apply those physiological principles to describe an approach for the management of Patient-Ventilator Dyssynchronies through specific scenarios 	Irene Telias Zoom	Brule A
2:15 p.m. – 2:45 p.m.	Control of Breathing During Mechanical Ventilation At the end of this session, participants will be able to: describe the basic physiology of control of breathing; and apply principles of control of breathing to understand patient-ventilator interaction.	Ewan Goligher	Brule A
2:45 p.m. – 3:00 p.m.	Break		
3:00 p.m. – 5:00 p.m.	Concurrent Workshops: The afternoon consists minute workshops	of two tracks, each	with two 40-
3:00 p.m. – 3:40 p.m.	 Workshop Session # 1A – Assessing Recruitability and PEEP Titration At the end of the workshop, the participants will be able to: describe the concept of recruitability and its implication during mechanical ventilation; describe the pros, cons, and evidence behind different methods of determining optimal PEEP; and apply a simplified method for assessing lung recruitment at the bedside. 	Lu Chen	Mill Room



	Workshop Session # 1B –	Alice Grassi	Brule A
	Assessing Respiratory Drive and Effort		
	At the end of the workshop, the participants		
	will be able to:		
	 differentiate the different type of 		
	breathing assistance provided by		
	different ventilation modes and will		
	be able to recognize the presence of		
	spontaneous breathing efforts; and		
	 assess the magnitude of the 		
	respiratory drive and effort using		
	different methods and describe the		
	difference/advantages and		
	disadvantages of each method		
	(esophageal pressure measurements,		
	p0.1, occlusion pressure, pressure		
	muscle index, NIF, diaphragm		
	thickening fraction).		
3:40 p.m. – 4:20 p.m.	Workshop Session # 2A –	Alice Grassi	Brule A
	Assessing Respiratory Drive and Effort		
	At the end of the workshop, the participants		
	will be able to:		
	 differentiate the different type of 		
	breathing assistance provided by		
	different ventilation modes and will		
	be able to recognize the presence of		
	spontaneous breathing efforts; and		
	 assess the magnitude of the 		
	respiratory drive and effort using		
	different methods and describe the		
	difference/advantages and		
	disadvantages of each method		
	(esophageal pressure measurements,		
	p0.1, occlusion pressure, pressure		
	muscle index, NIF, diaphragm		
	thickening fraction).		
	Workshop Session # 2B –	Lu Chen	Mill Room
	Assessing Recruitability and PEEP Titration		
	At the end of the workshop, the participants		
	will be able to:		
	 describe the concept of recruitability 		
	and its implication during mechanical		
	ventilation;		



	 describe the pros, cons, and evidence behind different methods of determining optimal PEEP; and apply a simplified method for assessing lung recruitment at the bedside. 		
4:20 p.m. – 5:00 p.m.	 Workshop Session # 3 – Management of Difficult Weaning At the end of this sessions, the participants will be able to: apply a structured approach to assess patients experiencing weaning failure; describe methods to assess work of breathing during weaning; describe management strategies of patients experiencing difficult weaning. 	Karen Bosma	Brule A
5:00 p.m.	Adjourn	1	



Thank You to Our Sponsors

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