

Wednesday, 15. April 2026

Workshop

18: Respiration

Wednesday, April 15, 2026, 08:30 - 10:00

WS.18.01 - Bronchoscopy for One-Lung Ventilation

► Workshop Description:

This is an interactive hands-on skills workshop for anaesthetists, nurses and allied health professionals wishing to the learn about single-lung ventilation and lung isolation techniques for thoracic or oesophageal surgery and the use of flexible bronchoscopy in these cases. We will cover basic techniques, placement of double-lumen tubes and bronchial blockers and discuss cases to illustrate decision-making, tips and pitfalls.

► Learning Objectives:

- ① Understand the decision-making process for one-lung ventilation
 - ② Learn the practical skills for double-lumen tube and bronchial blocker placement
 - ③ Recognise the bronchoscopic anatomy of the lung
 - ④ Discuss cases illustrating anticipated pitfalls of one-lung ventilation
- » Introduction (10min) followed by three hands-on stations with 6 people at each station (25-min each).

► Timetable:

Three workshop stations:

- ① Lung anatomy simulation (+/- case discussion)
- ② Placement of double-lumen tube - includes a discussion on decision-making and anticipated pitfalls.
- ③ Placement of bronchial blocker - includes a discussion on decision-making and anticipated pitfalls.

♦ **Max No. participants:** 20

♦ **Price:** US\$ 90 | **Reduced Fee:** US\$ 42

Workshop Lead: Cheng Ong (Boston, United States)

Workshop Instructor: Yasmeen Abu Fraiha (Boston, United States)

Workshop

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Wednesday, April 15, 2026, 10:30 - 12:00

WS.18.03 - Lung US for Beginners

♦ **Max No. participants:** 20

♦ **Price:** US\$ 90 | **Reduced Fee:** US\$ 42

Workshop Lead: Robina Matyal (Boston, United States)

Workshop Instructor: Mamoun Faroudy (Rabat, Morocco)

Workshop Instructor: Floura Barghouti (Riyadh, Saudi Arabia)

Workshop

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Wednesday, April 15, 2026, 13:00 - 14:30

WS.18.04 - Electrical Impedance Tomography

► Workshop Description:

This workshop will discuss the application of Electrical Impedance Tomography (EIT) in a clinical setting and for research both in the intensive care unit and operating room. Participants will be taught in the underlying physiological concepts and applications of EIT. It is not necessary that participants bring any prior experience with the technology to the workshop.

► Learning Objectives:

- Understand the technology and underlying physiological concepts behind Electrical Impedance Tomography
- Apply Electrical Impedance Tomography in a clinical setting to optimize mechanical ventilation and Lung Protection in the intensive care unit and operating room
- Apply Electrical Impedance Tomography to diagnose the cause of hypoxia and respiratory failure, guiding treatment and position strategies.
- Appreciate the opportunities Electrical Impedance Tomography offers for clinical research.

♦ **Max No. participants:** 20

♦ **Price:** US\$ 50 | **Reduced Fee:** US\$ 23

Workshop Instructor: Maximilian Schaefer (Boston, United States)

Workshop

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Wednesday, April 15, 2026, 15:00 - 16:00

WS.18.02 - Waveform Analysis

► **Workshop Description:**

In this workshop, participants will learn analyses of physiological data (waveforms) at the example of respiratory data. Continuous recordings of airway (and esophageal) pressure and flow will be utilized to explore the respiratory mechanics and gain information about optimizing mechanical ventilation. Participants should ideally bring a laptop (Windows or MAC) to process recordings using a dedicated software, but this is not a mandatory prerequisite for participating in the workshop.

► **Learning Objectives:**

- ① To process continuously recorded, physiological data and screen for artefacts
- ② To replicate the calculation of optimum PEEP using different techniques (esophageal manometry, pressure/volume loops, decremental PEEP trial)
- ③ To detect patterns of spontaneous breathing and ventilator asynchrony in waveforms
- ④ To appreciate the opportunities of waveform analysis in clinical research

♦ **Max No. participants:** 20

♦ **Price:** US\$ 50 | **Reduced Fee:** US\$ 23

Workshop Lead: Maximilian Schaefer (Boston, United States)

Thursday, 16. April 2026

Lecture Session

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Thursday, April 16, 2026, 09:45 - 10:45

O.18.01 - One Lung Ventilation

O.18.01.1	Introduction	09:45 - 09:47
O.18.01.2	Isolating the lung Speaker: Cheng Ong (Boston, United States)	09:47 - 10:02
O.18.01.3	How to set the ventilator Speaker: Xiahan Xiu (Boston, United States)	10:02 - 10:17
O.18.01.4	What to do when the patient isn't doing well Speaker: Ruth Shaylor (Tel Aviv, Israel)	10:17 - 10:32
O.18.01.5	Question and Answer - Panel	10:32 - 10:45

Lecture Session

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Thursday, April 16, 2026, 10:50 - 12:20

O.18.02 - HFNC in Anaesthesia

Introduction	10:50 - 10:52
In the perioperative period Speaker: Audrey De Jong (Montpellier, France)	10:52 - 11:10
Post extubation respiratory failure Speaker: Samir Jaber (Montpellier, France)	11:10 - 11:28
Outside of the OR Speaker: Maximilian Schaefer (Boston, United States)	11:28 - 11:46
For acute respiratory failure in the ICU Speaker: Yasmeen Abu Fraiha (Boston, United States)	11:46 - 12:04
Question and Answer - Panel	12:04 - 12:20

Lecture Session

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Thursday, April 16, 2026, 13:50 - 14:50

Meet the Expert - Brain trauma and ventilation

Chair: Chiara Robba (Genoa, Italy)

Introduction	13:50 - 13:52
Mechanical ventilation in patients with acute brain injury: ESICM consensus statement Speaker: Nicolò Antonino Patroniti (Genoa, Italy)	13:52 - 14:32
Question and Answer - Panel	14:32 - 14:50

Workshop

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Thursday, April 16, 2026, 13:50 - 15:20

WAG in Exhibition

WS-WAG.18.01 - World Anaesthesia Games Ventilation 1
► Overview:

Ventilation management is a cornerstone of anaesthetic practice, yet real-time decision-making in dynamic clinical environments remains a significant challenge. To enhance engagement and deepen clinical understanding, we present World Anaesthesia Games; ventilation —a novel, interactive educational experience designed for anaesthetists across all levels.

Developed by experts in anaesthesiology, simulation, and medical education, these serious games encourage collaboration, critical thinking, and reflection. Participants will navigate real-world-inspired cases involving mechanical ventilation, difficult airways, and perioperative respiratory complications—all within a supportive, gamified environment. Whether you are seeking to refine core skills or challenge your expertise, serious learning has never been more fun.

► Learning Objectives:

By the end of this session, participants will be able to:

- ① Identify essential versus non-essential equipment and features required for safe intubation and mechanical ventilation in patients with severe pulmonary pathology.
- ② Critically evaluate the clinical value of various devices and technologies, considering cost-effectiveness, patient condition, and resource limitations.
- ③ Differentiate common modes of mechanical ventilation based on their operational principles and clinical applications.
- ④ Interpret key ventilator parameters and settings, linking them to their physiological effects and safe usage thresholds.
- ⑤ Able to manage patients with a challenging airway safely during extubation
- ⑥ Engage in strategic communication, negotiation, and justification of clinical decisions while engaging in team challenges that promote situational awareness, closed-loop communication, and leadership.

♦ **Max No. participants:** 25

♦ **Price:** US\$ 50 | **Reduced Fee:** US\$ 23

Workshop Lead: Ruth Shaylor (Tel Aviv, Israel)

Workshop Instructor: Rodrigo Rubio (Mexico City, Mexico)

Workshop Instructor: Fredy Ariza Cadena (Cali, Colombia)

Workshop Instructor: Yasmeen Abu Fraiha (Boston, United States)

Workshop

18: Respiration

Thursday, April 16, 2026, 16:20 - 17:50

WAG in Exhibition

WS-WAG.18.02 - World Anaesthesia Games Ventilation 2
► Overview:

Ventilation management is a cornerstone of anaesthetic practice, yet real-time decision-making in dynamic clinical environments remains a significant challenge. To enhance engagement and deepen clinical understanding, we present World Anaesthesia Games; ventilation —a novel, interactive educational experience designed for anaesthetists across all levels.

Developed by experts in anaesthesiology, simulation, and medical education, these serious games encourage collaboration, critical thinking, and reflection. Participants will navigate real-world-inspired cases involving mechanical ventilation, difficult airways, and perioperative respiratory complications—all within a supportive, gamified environment. Whether you are seeking to refine core skills or challenge your expertise, serious learning has never been more fun.

► Learning Objectives:

By the end of this session, participants will be able to:

- ① Identify essential versus non-essential equipment and features required for safe intubation and mechanical ventilation in patients with severe pulmonary pathology.
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- ③ Differentiate common modes of mechanical ventilation based on their operational principles and clinical applications.
- ④ Interpret key ventilator parameters and settings, linking them to their physiological effects and safe usage thresholds.
- ⑤ Able to manage patients with a challenging airway safely during extubation

Scientific programme

19th WCA 2026 - 15-19 April 2026, Marrakech, Morocco

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♦ **Max No. participants:** 25

♦ **Price:** US\$ 50 | **Reduced Fee:** US\$ 23

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Workshop Instructor: Rodrigo Rubio (Mexico City, Mexico)

Workshop Instructor: Fredy Ariza Cadena (Cali, Colombia)

Workshop Instructor: Yasmeen Abu Fraiha (Boston, United States)

Friday, 17. April 2026

Lecture Session

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Friday, April 17, 2026, 08:15 - 09:45

O.18.03 - Lung Protection in the Operating Room

O.18.03.1	Introduction	08:15 - 08:17
O.18.03.2	Why should we? Speaker: Idit Matot (Tel Aviv, Israel)	08:17 - 08:35
O.18.03.3	How to do it? Speaker: Audrey De Jong (Montpellier, France)	08:35 - 08:53
O.18.03.4	For who ? Speaker: Maximilian Schaefer (Boston, United States)	08:53 - 09:11
O.18.03.5	Does it actually matter? Speaker: Daniel Talmor (Boston, United States)	09:11 - 09:29
O.18.03.6	Question and Answer - Panel	09:29 - 09:45

Lecture Session

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Friday, April 17, 2026, 10:15 - 11:15

O.18.04 - Mechanical Ventilation in Children

Introduction	10:15 - 10:17
Non-invasive ventilation Speaker: Annery Garcia-Marcinkiewicz (Philadelphia, United States)	10:17 - 10:32
Challenging cases in the OR Speaker: Javier Garcia (Madrid, Spain)	10:32 - 10:47
Critically ill children Speaker: Floura Barghouti (Riyadh, Saudi Arabia)	10:47 - 11:02
Question and Answer - Panel	11:02 - 11:15

Saturday, 18. April 2026

Lecture Session

18: Respiration

Saturday, April 18, 2026, 08:30 - 10:00

O.18.05 - Innovations in Ventilation

Introduction	08:30 - 08:32
VR and 3D printing to help with one lung ventilation Speaker: Ruth Shaylor (Tel Aviv, Israel)	08:32 - 08:50
Closed loop ventilation Speaker: Maxime Cannesson (Los Angeles, United States)	08:50 - 09:08
AI to assist in weaning from mechanical ventilation Speaker: Elena Bignami (Parma, Italy)	09:08 - 09:26
Lung us to guide personalised MV	09:26 - 09:44
Question and Answer - Panel	09:44 - 09:57

Lecture Session

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Saturday, April 18, 2026, 10:30 - 12:00

O.18.06 - Pulmonary Physiology in the Operating Room

Introduction	10:30 - 10:32
The PV curve - is it useful? Speaker: Maximilian Schaefer (Boston, United States)	10:32 - 10:50
Trans-pulmonary pressure - is it feasible? Speaker: Daniel Talmor (Boston, United States)	10:50 - 11:08
What is driving pressure?	11:08 - 11:26
Is mechanical power better? Speaker: Xiahan Xiu (Boston, United States)	11:26 - 11:44
Question and Answer - Panel	11:44 - 12:00

Sunday, 19. April 2026