Fundamentals of Mechanical Ventilation for Practicing Intensivists
April 4-5, 20024

Thursday, April 4, 2024

Module / Time		Lecture Topic	SPEAKER
1.1	8:00-9:20 (80)	Ohm's Law, Equation of Motion & Alveolar Pressure Learning Objectives: 1) Explain & apply Ohm's Law 2) Explain & apply the Equation of Motion 3) Distinguish Paw, PIP, Palv, Ppl	Lee
1.2	9:35-10:55 (80)	Natural Decay Equation, Time Constant & Autopeep Learning Objectives: 1) Explain & apply the Natural Decay Equation 2) Explain the time constant & V-time curve 3) Explain & assess for autopeep	Lee
1.3	11:05-12:15 (70)	Test Lung Praxis I – PIP & Ppl Learning Objectives: Explore Equation of Motion, Estimate Ppl MV Clinical Simulation I (2221 & 2290) Learning Objectives: Blind to the Learner	Lee, Seam Chatterjee, Kriner
	12:15-1:00 (45)	Lunch	
1.4	1:00-1:55 (55)	Normal I - Passive Expiration & Putting the Equations Together Learning Objectives: 1) Apply Ohm's Law and the Natural Decay Equation to passive expiration 2) Draw normal expiratory P-time, F-time & V-time curves	Chatterjee
1.6	2:05-3:00 (55)	Normal II - Volume Control Breaths - Square Wave & Decelerating Learning Objectives: 1) Apply Ohm's Law to volume-controlled breaths 2) Draw normal inspiratory P-time, F-time & V-time curves	Seam
1.5	3:15-4:10 (55)	Normal III - Pressure Control & Volume Targeted Breaths Learning Objectives: 1) Apply Ohm's Law to pressure controlled breaths 2) Draw normal inspiratory P-time, F-time & V-time curves	Chatterjee
1.6	4:20-5:30 (70)	Test Lung Praxis II –Tau & Autopeep Learning Objectives: 1) Explore Natural Decay Equation & Estimate Tau 2) Assess for Autopeep MV Clinical Simulation II (2240) Learning Objectives: Blind to the Learner	Lee, Seam Chatterjee, Kriner

Friday, April 5, 2024

Module / Time		Lecture Topic	SPEAKER
2.1	8:00-9:40 (100)	Test Lung Praxis III – Normal Waveforms Learning Objectives: 1) Draw Normal V Control, P Control, & V Targeted Breaths 2) Create low flow PV Curves MV Clinical Simulation III (2420 & 2480) Learning Objectives: Blind to the Learner	Lee, Seam Chatterjee, Kriner
2.2	9:55-11:05 (70)	Asynchronies of Initiating & Terminating the Breath Learning Objectives: 1) Recognize and Manage Ineffective & Auto Triggering 2) Recognize and Manage Premature & Delayed Cycling	Seam
2.3	11:20-12:30 (70)	Asynchronies of Flow Learning Objectives: 1) Recognize and Manage Flow Starvation & Excess	Kriner
	12:30-1:20 (50)	Lunch	
2.4	1:20-2:30 (70)	Asynchronies during Expiration Learning Objectives: 1) Recognize and Manage AutoPEEP & Labored Expiration	Kriner
2.6	2:45-4:15 (90)	Test Lung Praxis IV – Waveform Analysis Learning Objectives: 1) Recognize Ineffective & Auto Triggering, Flow Starvation & Excess, Premature & Delayed Cycling, and Autopeep & Active Exhalation MV Clinical Simulation IV (2430) Learning Objectives: Blind to the Learner	Lee, Seam Chatterjee, Kriner
2.7	4:30-5:30 (60)	Lung Protective Ventilation Strategies – Beyond 6 ml/kg Learning Objectives: 1) Review what can go wrong with LPS in setting of flow starvation, premature cycling, reverse triggering 2) Discuss Driving Pressure	Lee