# All Mechanically Ventilated Patients



### Measure:

- · Height and document in electronic medical record (EMR)
- · Obtain Predicted Body Weight (PBW)

# Hypoxemic Respiratory Failure (HRF) Screening:

- Conduct ABG at steady state (00:00h - 08:00h)
- HRF = PF  $\leq$  300
- Minimum PEEP for ABG: ≥ 5 cm H<sub>2</sub>O

### **ARDS Screening:**

- Meet HRF criteria PLUS
- Bilateral infiltrates on chest x-ray
- · Absence of heart failure as primary diagnosis

# Predicted Body Weight (PBW):

- · Based on patient sex and height
- · Automatically calculated once height is documented in EMR

### PF Ratio:

- PaO<sub>2</sub> (found on ABG) • PF ratio = FiO<sub>2</sub> (set on ventilator)
- Example: 100 mm Hg  $\div$  0.6 FiO<sub>2</sub>= 167

### ARDS severity by PF ratio:

- Mild
- 300-201
- 200 101 Moderate
- $\leq 100$ Severe



# ALBERTA

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### **ARDS Screening:**

PF ratio < 100

despite other interventions

- · Meet HRF criteria PLUS
- Bilateral infiltrates on chest x-ray
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# ARDS severity by PF ratio:

- Mild 300-201
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# Guidance for Intervention by PF Ratio

Interventions are additive as PF Ratio decreases

PF ratio ≤ 300	<ul> <li>Recent chest x-ray</li> <li>Controlled mode of ventilation</li> <li>Lung protective ventilation goals:         <ul> <li>Tidal volume 6-8 ml/kg PBW</li> <li>Plateau pressure ≤ 30 cm H<sub>2</sub>O</li> <li>Driving pressure ≤ 18 cm H<sub>2</sub>O</li> <li>(Driving pressure=Plateau Pressure - PEEP)</li> </ul> </li> <li>Sedation (RASS≤-3) to meet lung protect</li> <li>Consider recruitment maneuvers</li> <li>Consider esophageal balloon</li> <li>Fluid balance neutral or negative</li> </ul>	ive goals
PF ratio ≤ 200	Optimal PEEP study	
PF ratio ≤ 150	Consider neuromuscular blockade (NMB)	
PF ratio $\leq 150 + FiO_2 \geq 0.6$	Consider prone positioning	
PF ratio ≤ 100	Strongly recommend NMB	
PF ratio $\leq 100 + FiO_2 \geq 0.6$	Strongly recommend prone positioning	
PF ratio ≤ 100 despite other interventions	Consider ECLS referral	2021 03 30

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Consider ECLS referral

2021.03.30 2021.03.30

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PF ratio ≤ 100 despite other interventions	Consider ECLS referral     2021.03.3

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	PF ratio $\leq 100$ despite other interventions	• Consider ECLS referral	
			2021 03 30

#### 2021.03.30

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# Venting Wisely HRF & ARDS Pathway

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