



PROTECTIVE VENTILATION PROTOCOL

Addressograph

Any order preceded by a box must be checked to enable the order.

1. Establish Diagnosis of ARDS:

- PaO₂/FiO₂ ratio < or equal to 300
- Bilateral infiltrates consistent with pulmonary edema on frontal chest radiograph
- Requirement for positive pressure ventilation via endotracheal tube
- No clinical evidence of left atrial hypertension.
If measured, pulmonary arterial wedge pressure < 18 mmHg

2. Determine Goal Tidal Volume: 6 mL/kg of "Ideal Body Weight"

Ideal body weight (IBW) is calculated from age, gender and height (heel to crown) following equations:

Male: $IBW_{kg} = 50 + 2.3 [\text{height}_{\text{inches}} - 60]$ _____ kg
Female: $IBW_{kg} = 45 + 2.3 [\text{height}_{\text{inches}} - 60]$ _____ kg

Goal Tidal Volume = IBW x 6 mL/kg = _____ tidal volume (mL)

3. Initial Ventilator Settings:

- Mode: Volume Assist-Control SIMV Other: _____
- Tidal Volume: Set initial tidal volume to 8 ml/kg IBW
 Reduce tidal volume to 7 ml/kg after 1-2 hours,
 Goal of 6 ml/kg IBW after 1-2 hours
- Rate: Set initial ventilator rate to maintain baseline minute ventilation (not > 35 bpm)
 Initial Rate: _____

4. Plateau Pressure: Goal Plateau Pressure ≤ 30 cmH₂O

Check inspiratory plateau pressure every 4 hours and after each change in PEEP or tidal volume.

- If Pplat > 30 cmH₂O, decrease tidal volume by 1 ml/kg IBW to 5 or if necessary to 4 ml/kg IBW.
- If Pplat < 25 cmH₂O and tidal volume < 6 ml/kg, increase tidal volume by 1 ml/kg PBW until Pplat > 25 cmH₂O or goal tidal volume of 6 ml/kg IBW.
- If breath stacking or severe dyspnea occurs, tidal volume may be increased (not required) to 7 or 8 ml/kg PBW if Pplat remains ≤ 30 cmH₂O.

5. Oxygenation: GOAL: PaO₂ 55-80 mm Hg or SpO₂ 88-95%

Use the following FiO₂/PEEP combinations to achieve oxygenation goal.

FiO ₂	0.3	0.4	0.4	0.5	0.5	0.6	0.7	0.7	0.8	0.9	0.9	0.9	1.0	
PEEP	5	5	8	8	10	10	10	12	14	14	14	16	18	20-24

- Initial FiO₂: _____ % Initial PEEP: _____

MD Signature _____

Pager _____

Print Name _____

Date _____

Hour _____

A generic equivalent may be administered when a drug has been prescribed by a brand name unless order states to the contrary .

Medical Record Approval Date:
P&T Approval Date: / /03 (P-160)

Original to the medical record
Yellow copy to Pharmacy
Pink copy to MAR