INITIATE VENTILATOR SET UP:

- On arrival place patient on SIMV/PS Mode. Initiate Pulse Oximetry and Capnography
- Initial Tidal Volume is 6-8 milliliters per kilogram of Ideal Body Weight (IBW), to maintain Plateau Pressure goals between 25-30cmH₂O
- Initial Ventilator Rate is 8-12 Breaths per minute until the patient demonstrates the capability of spontaneous respirations
- FiO₂ – 100% initially, Weaning FiO₂ to 40% in 10-15 minute increments, while monitoring the Pulse Oximeter & the ETCO₂ Auto-wean FiO₂ to maintain SaO₂ ≥ 93%
- PEEP up to 5cmH₂O is Systolic Blood Pressure is > 80mmHg
- Set initial PS to 10cmH₂O

CRITERIA for WEANING

Ventilator Weaning occurs when patient is stable. Collaboration should occur between the Respiratory & Nursing Staff Prior to extubation. Specific criteria to evaluate include:

- Adequate blood pressure
- Absence of significant cardiac arrhythmias
- Minimal use of narcotics for pain control
- Minimal use of sedation
- ABG Analysis:
  - pH 7.30 – 7.47
  - PaCO₂ 35 – 50mmHg
  - PaO₂ ≥ 80mmHg
  - SaO₂ ≥ 93%
  - ETCO₂ ≤ 45mmHg
- If at any time the ETCO₂ trend is in question, obtain an ABG

INSTRUCTIONS:

A. Continue to wean FiO₂ to maintain oxygen saturation ≥ 93%
B. Begin to wean ventilator rate by 2 breaths every 30 minutes, as tolerated when spontaneous respiratory efforts of patient begin & spontaneous tidal volumes are > 300 milliliters. May wean more rapidly if patient is doing well observe patient for any intolerance to weaning.
C. PS 8-10cmH₂O can be utilized to overcome resistance of the ET Tube
D. Ultimate goal: CPAP 5/PS 5 for 20-40 minutes. Complete weaning parameters & extubate
E. Obtain an ABG, near the end of the CPAP Trial
F. When the patient is able to follow commands & can raise head off the bed, evaluate the readiness for extubation by following the Respiratory Weaning Parameters.

REPIRATORY WEANING PARAMETERS:

- NIF better than -20cmH₂O
- Spontaneous tidal volume > 5mL/kg IBW
• Spontaneous respiratory rate < 25 breaths per minute
• Spontaneous minute volume < 10 L per minute
• Vital capacity > 10mL/kg IBW
• RSBI ≤ 90 (Respiratory Rate / Tidal Volume)

CPAP TRAIL ABG CRITERIA:
• pH ≥ 7.30
• PaCO₂ < 50mmHg (Unless patient baseline value is higher)
• PaO₂ > 60mmHg on 40% FiO₂
• No other signs of weaning intolerance

PARAMETERS MET:
  a. Extubate the patient
  b. Place on 50% cool aerosol face mask
  c. Wean FiO₂ to maintain oxygen saturation > 93%
  d. Initiate an Incentive Spirometer &/or Other Respiratory Services per the Respiratory Care Plan –
    • Begin Inspiraex Protocol every 1-2 hours after extubation
    • Instruct patient, Incentive Spirometry every hour x 10 while awake from 0600 until 2300
    • Wean oxygen to keep saturation > 92%

PARAMETERS NOT MET:
• Respiratory rate > 35 breaths per minute for > 5 minutes
• Oxygen saturation < 90%
• Heart rate > 140 beats/minute
• Sustained increase or decrease in heart rate by 20%
• Systolic BP greater than 180mmHg or less than 90mmHg
• Increased anxiety
• Diaphoresis
• Bleeding > 100mL per hour