



UMC HEALTH SYSTEM

UMC Post Op Open Heart ORDERS for RESPIRATORY VENTILATOR CARE & WEANING

Patient Label Here

Procedure Date: _____ Procedure: _____

Admitting Diagnosis: _____

1. 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 25-30 cmH2O.
May decrease Tidal Volume less than 6 milliliters per kilogram
DO NOT decrease Tidal Volume less than 6 milliliters per kilogram
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 if Systolic Blood Pressure is > 80mmHG
Set Initial PS to 10 cmH2O

2. VENTILATOR WEANING:

- ABG parameters should be drawn to correlate ETCO2 SaO2 & document the SVO2 Potassium Lactate & Ionized Calcium)
Wean Vent per Standing Delegation Orders Begin @ _____
Call Anesthesia with NIF, VC, CPAP, and ABG
Ventilate/Sedate:
Overnight with a goal of : CPAP Extubate by 0630 in AM
Wean FIO2 per Standing Delegation Order Do NOT Extubate without Specific Order
Respiratory Therapy evaluation upon Extubation

3. CRITERIA for WEANING:

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

- Adequate Blood Pressure
Absence of significant Cardiac Arrhythmias
Minimal Use of Narcotics for Pain Control
Minimal Use of Sedation

TO Read back

Order taken by Signature: _____ Date/Time: _____

Physician Signature _____ Date/Time _____



- ABG Analysis:
 - pH 7.30 – 7.47
 - PaCO₂ 35-50 mmHg
 - Pa O₂ ≥ 80 mmHg
 - Sa O₂ ≥ 93%
 - ETCO₂ ≤ 45 mmHg

• If at any time the ETCO₂ Trend is in Question, Obtain an ABG

4. **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 – 10 cmH₂O 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

5. **RESPIRATORY WEANING PARAMETERS:**

- NIF Better Than -20cm H₂O
- Spontaneous Tidal Volume >5 ml/kg IBW
- Spontaneous Respiratory Rate < 25 breaths per minute
- Spontaneous Minute Volume < 10 L per minute
- Vital capacity > 10 ml/kg IBW
- RSBI ≤ 90 (Respiratory Rate / Tidal Volume)

6. **CPAP TRIAL ABG CRITERIA**

- PH ≥ 7.30
- PaCO₂ < 50 mmHG (Unless Patient Baseline Value is Higher)
- PaO₂ > 60mmHG on 40% FI O₂
- No Other Signs of Weaning Intolerance

7. **PARAMETERS MET:**

- a. Extubate the Patient
- b. Place on 50% Cool Aerosol Face Mask
- c. Wean FiO₂ to Maintain Oxygen Saturation > 93%

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d. Initiate an Incentive Spirometer &/or Other Respiratory Services per the Respiratory Care Plan-

- Begin Inspiraex Protocol every 1-2 hrs after extubation.
- Instruct Patient, Incentive Spirometry every hour x 10 while awake from 0600 until 2300
- Wean Oxygen to keep Saturation > 92%

Albuterol 2.5mg unit dose nebulizer every 4 hours x 48hrs per RT Standing Delegation Orders.

8. **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 180 mmHg or less than 90 mmHg
- Increased Anxiety
- Diaphoresis
- Bleeding > 100 ml per hour

TO Read back

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Physician Signature _____ Date/Time _____

