

ADULT VENTILATOR SUPPORT

Paramedic

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| <p>History</p> <ul style="list-style-type: none"> • Past Medical History • Medications • Allergies • Events leading to current status • DNR code status | <p>Signs and Symptoms</p> <ul style="list-style-type: none"> • ETT secured with commercial tube holder • Tube placement documented at teeth or gum line • Breath sounds and airway pressures documented | <p>Differential</p> <ul style="list-style-type: none"> • Determine mechanism of injury vs. nature of illness |
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Assess ETT and Ventilator Prior to Transport

Calculate Ideal Body Weight

Airway – Ventilator Operation Procedure

Reassess Breath Sounds
High Peak Airway Pressure – Check Plateau Airway Pressures (Keep < 30)

Initial Vent Settings:

SIMV or Assist Control
TV: 6-8 cc/kg ideal body weight
Rate: 16-18, adjust to maintain ETCO₂ 35-45
FiO₂: initial 100%, wean after 5 minutes as tolerated to goal of 40%
PEEP: initial 5, increase to maintain SPO₂ > 92%

Asthma/ COPD
Rate 10 initial
PEEP < 5
I:E ratio: 1:3 or 1:4

Positive bilateral breath sounds, bilateral chest wall movement, stable SPO₂ & ETCO₂, acyanotic

- **Continue to Monitor and Reassess**

Absent breath sounds, absent chest wall movement, falling SPO₂/ETCO₂, cyanosis, or any instability

- **Adult Airway Guideline**

Maintenance Medication Options:
****All ventilated patients require pain management. Consider IV infusions for continuous sedation****

Fentanyl – 0.5 -1.5 mcg/kg q 10 min. May start infusion of 2-4 mcg/kg/hour IV for prolonged transport. (Mix 500 mcg in 50 ml for 10 mcg/ml concentration, use 60 ml syringe and ½ set on pump)

Midazolam 2-5 mg IV – May repeat Q15 min. May start an infusion 20-100 mcg/kg/hr. (Mix 50 mg in 250 ml NS)

Ketamine 2 mg/kg IV PRN. May start an infusion 2 mg/kg/hr (Mix 500 mg in 250 ml NS for 2mg/ml concentration)

**** Manage patients WITHOUT additional paralytics when possible, especially with neurological conditions****

PEARLS:

- Keep BVM with mask and 10 ml syringe close to patient. In the event of any problem, the 1st corrective action is to disconnect the ventilator and utilize the BVM.
- **DOPE** - Displacement, Obstruction, Pneumothorax, Equipment failure/Esophageal intubation
- In the event of hypotension, consider auto PEEP. Disconnect the ventilator and ventilate allowing full expiration. If symptoms resolve, resume ventilation with reduced PEEP and/or increased expiratory time.
- Monitor SPO₂ and waveform ETCO₂ continuously during transport maintaining ETCO₂ at 35-45 (when appropriate).
- Suction as needed and refer to troubleshooting check sheet as needed.
- Acidotic patients are dependent on high minute ventilation to correct their acid-base balance. Keep ETCO₂ as low as it was or < 20
- Extended transports may require large amounts of medications. Plan Ahead.
- For seizures consider KEPRA 2 G/250 ml NS over 15 minutes and Midazolam infusion 20-100 mcg/kg/hr (mix 50 mg in 250 ml NS)
- May re-paralyze if attempts at increasing pain control or sedation fail or if patient is at risk for losing airway.