

Jackson County Medical Control Authority
MICU Protocols
VENTILATORS

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Ventilators

This protocol deals with considerations for the use of mechanical ventilators during inter-hospital transports. Typically, respiratory care settings will already have been established by physicians and administered by registered respiratory therapists.

1. Always keep a bag-valve mask (BVM) resuscitator close by in case of ventilator failure.
2. Patient lung sounds should be checked, and tube placement verified via X-ray/CO2 detector.
3. Respiratory status should be established via ABG in newly intubated patients when available. Continuous CO2 detection and monitoring with the pulse oximeter will be used on all patients. If no pulse ox is attainable due to poor circulation, an ABG will be necessary to insure adequate ventilations.
4. Ventilator and circuit must be set up according to manufacturer's recommendations.
5. Patient should be placed on the ventilator approximately 5 minutes prior to departure (to make sure patient tolerates our ventilator well). Adjustments should be made prior to departure. Recommended vent settings: 6-10 cc/kg of ideal body weight. Assist Control (AC), Synchronized Intermittent Mandatory Ventilations (SIMV), and the Non Invasive Positive Pressure Ventilation (NIPPV) techniques - Continuous Positive Airway Pressure (CPAP) and Bilevel Positive Airway Pressure (BiPap) are acceptable modes of operation. Set Positive End Expiratory Pressure (PEEP) and Sigh as established by sending facility.
6. Patients not tolerating the ventilator should have airway adequacy rechecked. If the airway is adequate and the ventilator is not functioning properly, the patient may be transported using BVM ventilation. If the problem is with the patient and not the ventilator, consider sedation/paralysis prior to departure (sedation alone is preferred). Most intubated patients should have Fentanyl 1mcg/kg IV administered to treat pain associated with intubation. For additional sedation of ventilator patients, administer Versed (Midazolam) or Propofol (Diprivan) per the corresponding MICU protocol.
7. Once the patient is on the ventilator, expiratory volumes must be checked and documented.
8. Patient's high and low pressure alarms can be set by taking the peak inspiratory pressure and adding 15 mmHg for the high value and subtracting 10 mmHg for the low value.
9. If the patient's respiratory status is unstable, contact medical control physician for approval to transport patient (i.e., hospital vent settings with PEEP greater than 10 mmHg).