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EMERGENCY MEDICAL SERVICES

AUTOMATIC TRANSPORT VENTILATORS

Purpose: To define the indications and procedure for use of an automatic transport ventilator (ATV).

Authority: Health and Safety Code, Division 2.5, Section 1798 and 1798.2. California Code of Regulations, Title 22, Division 9, Sections 100063 100175.

Policy: Paramedics and EMT-1s while under paramedic supervision, shall use automatic transport ventilators (ATV) according the following procedures and guidelines. Prior to use, personnel must be properly trained in the use of the ventilator according to the provider agency, manufacturer, and this and other appropriate policies.

The ATV is approved for use in the prehospital setting on adult patients (age 12 or greater) and for interfacility transport in adults and children if patient weight > 20 kg AND ATV use is approved by the transferring physician.

The ATV is contraindicated in patients with blunt or penetrating chest trauma who have had a needle thoracostomy, unless the patient has a chest tube placed on the affected side.

Procedure:

- 1. Secure patient's airway using appropriate airway management techniques and according to the Airway Management Protocol (Policy 533)
- 2. Ensure the patient's airway is clear of obstructions and suction as needed.
- 3. Ensure that the ventilator is connected to an oxygen source, such as a portable oxygen cylinder or main ambulance oxygen source.
- 4. Set the Tidal Volume at 8 mL/kg of the patient's body weight.

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5. Set the Inspiratory Time (if an option) to the <u>Child</u> setting (but must be > 20 kg to use). Ensure the dial is in the proper setting (Adult v. Child) as an improper volume maybe delivered if the dial is not set correctly. Use on children is limited to interfacility transport and according to the sending physician's orders.

- 6. Set the desired Breaths Per Minute (BPM). For adults use 8-10 (without a pulse) or 10-12 (with a pulse) BPM and children according to sending orders.
- 7. Temporarily occlude the outlet port to confirm proper operation of the valve and pressure limit alarm.
- 8. Attach the disposable ventilator circuit.
- 9. Attach the ventilator circuit to the airway device (King, or endotracheal tube)
- 10. Recheck and adjust as needed to adequately ventilate the patient the following parameters: BPM, Tidal Volume, and Inspiratory Time.
- 11. Should a mechanical problem develop or the patient appears to be experiencing difficulty while connected to the ventilator, discontinue use and ventilate by BVM.
- 12.NOTE: If the pressure alarm sounds during the inspiratory phase and adequate chest movement does not occur, increase the Tidal Volume slightly until adequate chest rise occurs. If this still does not result in silencing of the alarm, discontinue use the ventilator.
- 13. Documentation shall reflect all ATV parameters as well as patient's condition, vital signs and capnography levels.
- 14. For Interfacility Transport Use: Follow the ventilator orders of the sending physician. The Patient Care Record (PCR) shall reflect the sending physician's orders. If any problems arise during transport, troubleshoot as above and contact the Base Hospital.
- 15. After use, clean the ventilator according to the manufacturer's instructions.