

# Southern Illinois Regional EMS System

## II-29 AUTOMATIC TRANSPORT VENTILATOR

### ALS/ILS

#### Indications:

- The Automatic Transport Ventilator may be used in patients that are apnic or exhibiting agonal respirations requiring ventilatory support, after an advanced provider has established an advanced airway.
  - ATV's may be used on patients in full arrest.
- The ATV may be used for interfacility transport of the hemodynamically stable, vent-dependent patient.
- The type of ATV must be approved by the System.
  - Only ATVs for use in the Prehospital setting will be approved. (i.e. Parapac)
- The use of ATVs is optional for providers and must be approved by the System.

#### Contraindications:

- Patients with suspected Pneumothorax or Tension pneumothorax.

#### Equipment:

- Approved Automatic Transport Ventilator
- Oxygen Source.
- Bag valve mask
- Intubation equipment
- ETCO<sub>2</sub> if available

#### Procedure:

- Determine need for ventilatory support.
- Establish airway and employ conventional BLS airway adjuncts and ventilatory support according to protocol.
- Paramedic shall perform oral intubation according to system protocol. Tube shall be secured and proper placement shall be confirmed per intubation protocol including ETCO<sub>2</sub> if available.
- Assemble components of automated ventilator and insure proper working order, including pressure limit alarm.
- Determine proper Tidal Volume for patient. Use the following equation for adult and pediatric patients:
  - $10 \text{ ml} \times \text{weight in kilograms} = \text{Tidal Volume}$
- Set the Tidal Volume on the ventilator's control module accordingly.
- Set desired breaths per minute on the ventilator's control module:
  - Adult = 12-15 per minute.
  - Pediatric = 20-24 per minute.
- Remove BVM and attach the outlet port of the ventilator assembly to the ET tube
- Observe chest rise during the ventilation cycles. Chest rise should appear normal and symmetrical. EMS Personnel shall continue to monitor chest rise throughout the remainder of patient care, as is done normally using a bag-valve device.
  - Monitor ETCO<sub>2</sub> if available

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## II-29 AUTOMATIC TRANSPORT VENTILATOR (continued)

- Personnel shall monitor PSI level in oxygen cylinder.

### *Precautions:*

*EMS is responsible for all airway management and must frequently reassess ET tube placement. Bilateral breath sounds and tube placement must be checked after each patient movement (e.g. placing patient on gurney, moving patient to ambulance, etc.)*

### Special Information:

- Agencies using this equipment must be certain to follow the manufacturer's instructions to the letter regarding the use, maintenance, cleaning, and regular testing of the devices.
- Units must be disinfected, inspected, and tested after every patient use.
- Agencies shall arrange for (at least) annual inspections and testing of the equipment by a manufacturer's representative (or designee).
  - Documentation of this service shall be maintained in a service-log.
  - This record shall be kept by each agency using ATV's.
- Agency personnel shall continually observe the patient and document patient response to any changes while the device is operational.
  - Personnel shall chart the initial settings (rate/tidal volume), and any subsequent changes, when the device is utilized.
  - Such documentation shall appear on the Patient Care Report (PCR).

### Training:

- Initial training of Paramedics and PHRNs shall be in accordance with the System-approved training program/manufacturer's program.
- The system may designate a lead instructor to train new employees/participants.

### Quality Improvement:

- The System will review each run when the ATV is placed on a patient to ensure appropriate use.