Transport of the Mechanically Ventilated, Critically Injured or Ill, Neonate, Child or Adult Patient

Transport of the mechanically ventilated, critically injured or ill neonatal, pediatric and/or adult patient is always associated with a degree of risk. Whether these transports are considered external transports -- from one facility to another -- or internal transports -- from one area to another -- within a facility or system, the risks associated with transporting the mechanically ventilated patient need need to be minimized through careful preparation prior to the transport, good hand-off communication between all parties, continuous monitoring throughout the transport, and assurance of patient stability with final hand-off. The use of appropriate transport equipment that has the ability to function from a battery source in the event of power failure and personnel appropriately trained to deal with varying circumstances are also essential.

Pre-hospital transport refers to transport of a critically ill patient from the scene of trauma or illness to the hospital. Inter-hospital transport refers to the emergency transport from one facility to another for acute life-threatening illnesses. This is emergency transportation that is needed due to the lack of diagnostic facilities, staff, clinical expertise or facilities for the safe and effective care of the patient by the referring hospital. Intra-hospital transport refers to the transport of critically ill patients from one area of a hospital to another within the same hospital.

The American Association for Respiratory Care (AARC) recognizes the following as the minimum standards for the safe transport of the mechanically ventilated, critically injured or ill patient:

1. Transports will be performed by a team consisting of, at a minimum, a Certified or Registered credentialed Respiratory Therapist and a Registered-Nurse with critical care experience.
2. One member of the transport team will have the appropriate advanced life support certification (NRP, PALS, and/or ACLS) to address the needs of the patient.

3. A minimum of one member of the transport team will be competent in airway management. Appropriate airway management equipment will be readily available during the transport.

4. Transport monitors will provide real-time measurement of all essential parameters.

5. Transportation will be performed according to the AARC Clinical Practice Guideline entitled “In-hospital transport of the mechanically ventilated patient” published in 2002. (Link to AARC Clinical Practice Guideline: "In-hospital transport of the mechanically ventilated patient" 2002)

6. All patients receiving mechanical ventilation will have some form of carbon dioxide monitor in place during transport as this monitor is useful in providing information regarding both airway placement and pulmonary flood flow.

7. A transport ventilator, or transport capable ICU ventilator, will be utilized for mechanical ventilation when possible.

8. A self inflating bag-valve-mask resuscitation device will accompany all patients on transport in case of ventilator failure, gas failure, or accidental extubation.

9. A trial of mechanical ventilation using the planned transport device will be conducted to assess patient tolerance and stability before proceeding with the transport whenever possible.

Developed 11/09

Revised 06/17