

TIP SHEET: VENTILATOR DEPENDENT PATIENTS

- ◆ To do a procedure with a ventilator dependent patient, please use Medi/Nuclear's® kits made exclusively for ventilator dependent patients and follow the step-by-step instructions in the training Power Point provided by Medi/Nuclear®.
- ◆ For the Respiratory Therapist that is unfamiliar or uncomfortable with performing a nuclear procedure, remind him/her that dosing for a lung scan on a ventilator dependent patient is basically the same as performing a nebulizer treatment. The main differences are:
 1. The oxygen flow rate must be 8-12 LPM to allow the liquid radioisotope in the nebulizer to create a mist.
 2. Dosing requires 3-5 minutes, which is less than most nebulizer treatments.
 3. Because a radioisotope is being nebulized, it is housed in a lead lined shield to provide personal protection, and includes a HEPA filter for exhalation to protect the ventilator from contamination.
 4. The lungs will not overinflate as air flow will always take the path of least resistance by moving from areas of high pressure to areas of low pressure. Remember, this is a closed system so air flow will be going one way. Any excess air flow (above 5L/min.) will be sent to the HEPA filter. Beyond that, all ventilators have an expiratory relief valve to prevent over ventilation and to avoid Volutrauma/Barotrauma.
- ◆ The following are helpful Nuclear Tech tips and insights from the field:
 1. Have the Respiratory Therapist suction the patient prior to starting the procedure and slow inspiration as much as possible, taking into account the patient's condition and safety.
 2. To make sure the oxygen flow meter is calibrated properly and the kit and shield are functioning appropriately, put **.5 ml** of normal saline into the vent kit and run it for 30 seconds, at 10 LPM so you can visually ensure that everything is working adequately.
 3. Ask the Respiratory Therapist to remove the filter between the patient trachea and the Y. Place that tube directly into the vent kit and immediately check for mist and plug the vent tube directly into the patient trachea.
 4. Be sure your vent tube is not kinked and keep it as straight as you can.
 5. Keep in mind that image quality won't be as good with mechanical ventilation. It is not a defect in the product, rather an unnatural breathing pattern that makes the difference.



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