

Mechanical Ventilation: Neonatal Time-Triggered, Pressure-Limited, and Time-Cycled (Respiratory Therapy)

CHECKLIST

S = Satisfactory **U** = Unsatisfactory **NP** = Not Performed

Step	S	U	NP	Comments
Performed hand hygiene before patient contact.				
Introduced self to the family, if they were present at the bedside.				
Verified the correct neonate using two identifiers.				
Determined the family's desire to be present during the procedure.				
Assessed the family's understanding of the reasons for and risks and benefits of the procedure.				
Auscultated breath sounds before placing the neonate on mechanical ventilation and assessed his or her chest radiograph for tube placement.				
Checked for adequate chest rise and for breath sounds in all lung fields.				
Assessed vital signs and SpO ₂ .				
Ensured that all necessary emergency equipment was at the neonate's bedside, including an MRB with an appropriate-size mask, pressure manometer (if not built into the MRB), and suction equipment.				
Ensured that the ET tube was secured to the neonate with appropriate tape or a commercially available securing device.				
Ensured that the neonate was properly positioned with the head of the bed elevated at least 30 degrees, unless contraindicated.				
Ensured that the ventilator had been appropriately self-tested as recommended by the manufacturer.				
Ensured that the ventilator circuit and humidification device were appropriately assembled on the ventilator and that they were ready for attachment to the neonate.				
Ensured that all necessary connections were made to connect the ventilator to medical air, oxygen, and electricity.				
Ensured that all the ventilator alarms were functioning appropriately.				
Ensured that the ventilator monitor was functioning properly.				

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Ensured that the ventilator circuit humidification system was turned on and heating properly with water in the heater chamber.				
Performed hand hygiene and donned gloves.				
Explained the procedure to the family (if they were present at the bedside) and ensured that they agreed to treatment.				
Ensured that the ventilator was turned on and was close to the neonate.				
Set the initial ventilator settings and adjusted them either in collaboration with an authorized practitioner or by following the organization's practice.				
1. Adjusted the PIP until the neonate's chest rose.				
2. Avoided mean airway pressures greater than 15 cm H ₂ O. If pressure greater than 15 cm H ₂ O was needed, considered high-frequency oscillatory ventilation.				
3. Set the positive end-expiratory pressure (PEEP) between 5 and 8 cm H ₂ O.				
4. Set a short inspiratory time with an I:E ratio of 1:2.				
5. Set the mandatory rate as prescribed by the practitioner or the organization's practice.				
6. Set the FIO ₂ to achieve the desired SaO ₂ .				
7. Assessed radiographic findings and ABG results to determine the appropriateness of the settings.				
Attached the ventilator circuit to the neonate via the ET tube adapter. Stabilized the ventilator circuit so it was not pulling on or putting tension on the ET tube.				
Performed a complete neonate ventilator system check by checking all initial ventilator and alarm settings, the neonate's spontaneous efforts, and the depth of the ET tube.				
Ensured that appropriate alarm parameters were set, including low PIP, high PIP, low VT,				

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high VT, high respiratory rate, low minute ventilation, and high minute ventilation.				
Observed the neonate for signs and symptoms of increased work of breathing or asynchrony.				
Ensured that the ventilator circuit, inline suction catheter (if applicable), and other respiratory-related tubing were properly positioned and were not pulling, pushing, or placing undue pressure on the ET tube or forcing it against the neonate's gums or soft palate.				
Observed the neonate for signs and symptoms of pain. If pain was suspected, reported it to the authorized practitioner.				
Removed gloves and performed hand hygiene.				
Documented the procedure in the neonate's record.				

Learner: _____ Signature: _____

Evaluator: _____ Signature: _____

Date: _____