



HEALTH HOLDING

HAFER ALBATIN HEALTH
CLUSTER
MATERNITY AND
CHILDREN HOSPITAL

Department:	Neonatal Intensive Care Unit (NICU)		
Document:	Multidisciplinary Policy and Procedure		
Title:	Care of Neonate on Ventilator		
Applies To:	All NICU Staff and Respiratory Therapists		
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1. PURPOSE:

- 1.1 To maintain ventilation automatically.
- 1.2 To increase functional capacity.
- 1.3 To aid in increasing the surface area of gas exchange.
- 1.4 To prevent collapse of alveolar units and development of atelectasis.
- 1.5 To decrease lung compliance resulting in decreased work of breathing.

2. DEFINITIONS:

- 2.1 Care of patient undergoing intermittent positive pressure breathing (IPPB) is a guided nursing management of patient placed on a piece of equipment that supplies air or oxygen under increased pressure during inspiration.

3. POLICY:

- 3.1 Before connecting patient to mechanical ventilator, there must be written order from the physician.
- 3.2 Ventilator parameter must be written by the physician or an anaesthetist.
- 3.3 Ventilator parameter must be set up by a respiratory therapist or a qualified nurse.
- 3.4 Patient requiring mechanical ventilation must be admitted in ICU.
- 3.5 Ventilated patients must be cared by a qualified nurse.

4. PROCEDURE:

- 4.1 Wash hands. Maintain Hand Hygiene.
- 4.2 Check for the written order of the physician.
- 4.3 Arrange the equipment.
- 4.4 Explain the procedure to the patient and/or his family.
- 4.5 Secure airway. Make sure cuffed endotracheal or tracheostomy tube (depends on physician's preference) are in place.
- 4.6 Prepare the ventilator:
 - 4.6.1 Set up desired circuitry.
 - 4.6.2 Connect oxygen and compressed air source.
 - 4.6.3 Turn on power.
 - 4.6.4 Set Tidal volume (usually 6-8ml/kg birth weight) or peak pressure.
 - 4.6.5 Set oxygen concentration.
 - 4.6.6 Set ventilator sensitivity.
 - 4.6.7 Set rate at 12 breaths per minute (can change according to patient's condition and response and the type of ventilator being used).
- 4.7 Connect the patient's airway to the ventilator tubing. Make sure all connections are secure.
- 4.8 Assess patient for adequate chest movement and rate of respiration.
- 4.9 Set airway pressure alarms according to patients baseline.
 - 4.9.1 High airway is set at about 20cm. H₂O above peak airway pressure.

- 4.9.2 Low airway pressure is set at 5 to 10cm to H₂O below peak airway pressure.
- 4.10 Assess frequently change in respiratory status. If change is noted, notify attending physician
- 4.11 Ensure adequate ventilation at all times, monitor and trouble shoot alarm condition.
However, if it cannot be corrected immediately, remove the patient from mechanical ventilation with resuscitation bag.
- 4.12 Turn patient from side to side every 1 ½ to 2 hours or more frequently as possible.
- 4.13 Assess for need of suctioning every two (2) hours. Respiratory care practitioner should do at least one suction per shift to assess patient and be notified if there is any issue regarding suctioning.
- 4.14 Assess breath sounds and airway patency every two (2) hours.
- 4.15 Check water level in the humidification reservoir. Empty the water that condenses in the delivery and exhalation tubing into the humidifier. Always wash hands after emptying fluid from ventilator circuitry.
- 4.16 Measure Tidal volume delivered and analyse oxygen concentration every four (4) hours or more frequently if indicated.
- 4.17 Obtain accurate daily weight and precise intake and output.
- 4.18 Monitor nutritional status and Gastrointestinal function.
- 4.19 Change ventilator circuitry every 24 hours. Assess ventilators function every four (4) hours.
- 4.20 Maintain a flow sheet to record a ventilation pattern such as ABG, blood investigation & assessment of patient condition.
- 4.21 Document in the nurse's notes
- 4.21.1 Type of ventilator used
 - 4.21.2 Ventilator settings
 - 4.21.3 Time mechanical ventilator started
 - 4.21.4 Any problem with the ventilator and actions taken.

5. MATERIAL AND EQUIPMENT:

- 5.1 Ventilator
- 5.2 Ventilator Tubing

6. RESPONSIBILITIES:

- 6.1 Physician
- 6.2 Nurse
- 6.3 Respiratory Therapist

7. APPENDICES:

N/A

8. REFERENCES:

- 8.1 Ministry of Health, Nursing Administration Functions and Duties, Policies and Procedures

9. APPROVALS:

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