



وزارة الصحة
سياسات وإجراءات

MOH	POL	HOS	RT	07	رمز السياسة:	اسم السياسة:
						Noninvasive Positive Pressure Ventilation
					عدد الصفحات: 6 صفحات	الطبعة: الثانية

الوحدة التنظيمية: مديرية التطوير المؤسسي وضبط الجودة						
الجهة المعنية بتنفيذ السياسة: شعبة المعالجة التنفسية						
تاريخ الاعداد: ٢٠٢٥/١٠/٣		التوقيع:		الاعداد:		
		التوقيع:		رئيس اختصاص التخدير والعناية الحثيثة		
		التوقيع:		رئيس قسم سلامة المرضى		
		التوقيع:		رئيس مركز التخدير والعناية الحثيثة		
		التوقيع:		رئيس وحدة العناية الحثيثة للكبار		
		التوقيع:		رئيس شعبة التنفسية/إدارة مستشفيات		
		التوقيع:		البشير		
		التوقيع:		فني معالجة تنفسية/إدارة مستشفيات		
		التوقيع:		البشير		
تاريخ تدقيق ضبط الجودة: ٢٠٢٥/١١/٣		التوقيع:		التدقيق من ناحية ضبط الجودة: مدير		
		التوقيع:		مديرية التطوير المؤسسي وضبط الجودة		
تاريخ الاعتماد: ٢٠٢٥/١١/٥		التوقيع:		الاعتماد: عطوفة الأمين العام للشؤون		
		التوقيع:		الإدارية والفنية		

ختم الاعتماد

وزارة الصحة
مديرية التطوير المؤسسي وضبط الجودة
السياسات والإجراءات
Policies & Procedures
٢٠٢٥ ٠٩
معتد
Approved

تتم مراجعة السياسة كل سنتين على الأقل من تاريخ اعتماد آخر طبعة:		
مهرات مراجعة السياسة	تاريخ الاعتماد	رقم الطبعة
التحديث		الثانية

ختم النسخة الاصلية

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1- Policy:

- 1.1 Noninvasive Positive Pressure Ventilation (NPPV) should be ordered by the ICU physician or Pulmonologist.
- 1.2 The initial main settings or any change on NPPV settings done by the respiratory therapist should be discussed, approved and documented by the ICU physician or Pulmonologist.
- 1.3 Changes done by the ICU physician or pulmonologist should be communicated to the respiratory therapist.
- 1.4 ICU/floor nurse can only adjust FiO2 according to physician order and respiratory therapist should be informed
- 1.5 NPPV check should be done every 4 hours and when needed.
- 1.6 Noninvasive Positive Pressure Ventilation (NPPV) should not be prepared for standby purpose.
- 1.7 Any Noninvasive Positive Pressure Ventilation (NPPV) patient should be attended with respiratory therapist during transfer in or out facility.

2- Purpose:

To identify patients that would benefit from the NPPV, and to provide standards and practical advice to healthcare staff for the optimal delivery of the NPPV for hospitalized patients with acute and chronic respiratory failure , trying to reduce the incidences of patients intubation

3- Scope:

This policy is applicable for respiratory therapy unit, ICU physicians, and Pulmonologist and ICU/Floor nurses.

4- Responsibilities:

It is the responsibility of the respiratory therapist, Pulmonologist and ICU physicians to implement and follow the procedure while apply patient on NPPV.

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5- Definitions:

Noninvasive Positive Pressure Ventilation (NPPV): refers to positive pressure ventilation delivered through a noninvasive interface (nasal mask, facemask, or nasal plugs), rather than an invasive interface (endotracheal tube, tracheostomy).

6- Guideline:

6.1 Indications:

- 6.1.1 Hypersonic respiratory failure.
- 6.1.2 COPD exacerbation.
- 6.1.3 Facilitation of extubation.
- 6.1.4 Acute cardiogenic pulmonary edema.
- 6.1.5 Respiratory failure in immune compromised patients.
- 6.1.6 End-of-life care and DNR orders.
- 6.1.7 Postoperative respiratory failure.
- 6.1.8 Prevention of re intubation in high-risk patients.
- 6.1.9 Post extubation respiratory failure.
- 6.1.10 Nocturnal hypoventilation (central and obstructive sleep apnea, obesity).
- 6.1.11 Restrictive thoracic disease (neuromuscular diseases, chest wall deformities, spinal cord injuries,).
- 6.1.12 Asthma exacerbation.

6.2 Contraindications:

- 6.2.1 Cardiac or respiratory arrest.
- 6.2.2 No respiratory organ failure (Severe encephalopathy, severe upper gastrointestinal bleeding, Hemodynamic instability or unstable cardiac arrhythmia).
- 6.2.3 High aspiration risk of gastric content (upper gastrointestinal surgery or GI bleeding, bowel obstruction and/or vomiting).
- 6.2.4 Facial or neurological surgery, trauma, or deformity.
- 6.2.5 Significant airway obstruction, patients with significant upper airway obstruction (e.g., large laryngeal mass) or significant central lower airway obstruction (e.g., tracheal tumor). The obstruction can be bypassed with an invasive device.

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6.2.6 Inability to cooperate/protect airway (reduced level of consciousness GCS less than 8, severe confusion/agitation) g. The need for emergent intubation.

6.2.7 Untreated pneumothorax, although non -invasive ventilation is acceptable once a chest tube in place.

6.2.8 Upper gastrointestinal bleeding.

6.2.9 J. Recent esophageal or gastric anastomosis, generally avoid noninvasive ventilation after upper gastrointestinal surgery (e.g. gastric bypass, Esophagostomy) that involves anastomosis, due to the possibility of gastric distention with leakage of gastric contents caused by pressurized air.

6.3 Potential Complications:

6.3.1 Cardiovascular compromise.

6.3.2 Skin breaks down and discomfort from mask.

6.3.3 Gastric distention.

6.3.4 Increased intracranial pressure.

6.3.5 Pulmonary barotrauma.

6.3.6 Aspiration.

6.3.7 Claustrophobic reaction.

6.3.8 Eye irritation, ear pain, or sinus congestion.

7- Procedure:

7.1 Evaluate patient for use of NPPV appropriately monitored location, oximetry, respiratory impedance, vital signs as clinically indicated. Once a patient has been selected to receive a trial of NIV, it should be initiated as soon as possible.

7.2 Explain NPPV benefits and machine operation to patient.

7.3 Elevate the head of bed at a 30 degree angle or greater.

7.4 Select the appropriate machine.

7.5 Select and fit interface (appropriate size and type).

7.6 Apply headgear; avoid excessive strap tension (one or two fingers under strap).

7.7 Connect interface to ventilator tubing and turn on the ventilator.

7.8 Start with low pressure in spontaneously triggered mode with backup rate; pressure limited: 8 to 12 cmH₂O inspiratory pressure; 3 to 5 cmH₂O expiratory pressure

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7.9 Gradually increase inspiratory pressure as tolerated to achieve alleviation of dyspnea, decreased respiratory rate, increased tidal volume (if being monitored), and good patient– ventilator synchrony, and adjust PEEP/EPAP and/or FiO2 according to patient's need.

7.10 Check for air leaks, readjust straps as needed

7.11 Add humidifier as indicated

7.12 Consider mild sedation in agitated patients

7.13 Perform NPPV check every 4 hours and when needed.

7.14 Monitor occasional blood gases (within 1 to 2 hours) and then as needed

7.15 Weaning from NIV may be accomplished by progressively decreasing the amount of positive airway pressure, permitting the patient to be disconnected from the NIV for progressively longer durations, or a combination of both.

8-Forms and Document:

None

9-References:

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