وزارة الصحة
سياسات واجراءات

اسم السياسة: Invasive Mechanical Ventilation	رمز السياسة: MOH POL HOS RT 05
عدد الصفحات:5 صفحات	الطبعة: الأولى

الوحدة التنظيمية: مديرية التطوير المؤسسي وضبط الجودة		
الجهة المعنية بتنفيذ السياسة: شعبة المعالجة التنفسية		
الاعداد: لجنة تطوير واستحداث وحدات المعالجة التنفسية في مستشفيات وزارة الصحة	التوقيع: التوقيع: التوقيع: التوقيع: التوقيع: التوقيع: التوقيع:	تاريخ الاعداد: ٢٠٢٣/٨/٢٠
المراجعة: قسم إدارة الجودة/ شعبة سلامة المرضى	التوقيع:	تاريخ المراجعة: ٢٠٢٣/٩/٢٠
التدقيق من ناحية ضبط الجودة: مدير مديرية التطوير المؤسسي وضبط الجودة	التوقيع:	تاريخ تدقيق ضبط الجودة: ٢٠٢٣/١١/٢٦
الاعتماد: عطوفة الأمين العام للشؤون الإدارية والفنية	التوقيع:	تاريخ الاعتماد: ٢٠٢٣/١١/٢٧

وزارة الصحة
مديرية التطوير المؤسسي و ضبط الجودة
السياسات و الإجراءات
Policies & Procedures
ختم الاعتماد
٢٧ تشرين الثاني ٢٠٢٣
معتمدة
Approved

تتم مراجعة السياسة كل سنتين على الأقل من تاريخ اعتماد آخر طبعة:

رقم الطبعة	تاريخ الاعتماد	مبررات السياسة	مراجعة

ختم النسخة الاصلية

MASTER COPY

وزارة الصحة
سياسات واجراءات

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1- Purpose:

To provide adequate oxygenation and ventilation for critically ill patients.

2. Policy:

2.1 Mechanical ventilator should be ordered by the ICU physician.

2.2 The initial or any change on mechanical ventilator settings are applied by respiratory therapist should be discussed, approved and documented by the ICU physician.

2.3 Changes done by the ICU physician should be communicated to the respiratory therapist.

2.4 ICU nurse can only adjust FiO2 according to physician order, and respiratory therapist should be informed.

2.5 Ventilator check should be done every 4 hours and when needed.

2.6 Ventilator alarms must be on at all times, never be ignored or silenced without first checking the problem. Should be documented at least one time per shift.

2.7 Mechanical ventilator should not be prepared for stand by purpose.

2.8 Any mechanically ventilated patient should be attended with respiratory therapist during transfer in or out facility.

2.9 Closed suction system should be applied to all mechanically ventilated patient.

2.10 Aerosal medication should be applied as metered dose inhaler or with aerogen nebulizer through humidified circuit.

2.11 Weaning protocol should be initiated by ICU physician.

2.12 Weaning protocol should be used for all adult patients need to be extubated from mechanical ventilation

3- Scope:

This policy is applicable for Respiratory Therapy Unit, ICUs Physician, and ICUs Nurse.

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4- Responsibilities:

It's the responsibility of the ICUs Physicians, Respiratory Therapists and ICU Nurses to implement the invasive mechanical ventilation policy.

5- Definitions:

Mechanical ventilator: is the machine used to support or replace the function of the lungs, by forcing the air into the lungs attached to endotracheal tube or tracheostomy.

6- Procedure:

6.1 Indications:

a. Respiratory Failure

b. Cardiopulmonary arrest

c. Trauma (especially head, neck, and chest)

d. Cardiovascular impairment (strokes, tumors, infection, emboli, trauma)

e. Neurological impairment (drugs, poisons, myasthenia gravis)

f. Pulmonary impairment (infections, tumors, pneumothorax, COPD, trauma, pneumonia, poisons).

6.2 Complications:

a. Ventilator-associated lung injury (volutrauma, barotrauma, biotrauma, atelectrauma‹

ergotrauma, Oxygen Toxicity).

b. Cardiovascular and Renal Complications (reduced venous return, cardiac output and hypotension, decrease urine output).

c. Gastrointestinal and Nutritional Complications (Gastritis and ulcer formation, malnutrition).

d. Ventilator associated pneumonia.

e. Central nervous system complications, elevated intracranial pressure (ICP).

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f. Immune system complication induce inflammation.

g. Auto PEEP.

h. Ventilation/perfusion mismatch.

i. Systemic muscular weakness.

6.3 Procedure:

6.3.1 Ventilator starting:

a. Provide and set up the mechanical ventilator, accessories and tubing specific to patient's needs.

b. Perform the preoperational check, tests and calibrations

c. Set up in-line suction for ventilated patients that it's fitting to ETT/Tracheostomy size.

d. Set the ventilation parameters based on the patient's medical condition.

e. Initiate ventilation, set the alarms (it is vital that the alarms be set appropriately), adjust the loudness control to maximum and provide adjunctive ventilator equipment.

f. Observe patient for adequate oxygenation and ventilation by monitoring and auscultation.

g. Do chest radiograph to insure proper placement of ETT and reflects lung abnormality.

h. Draw arterial / venous blood gas after 30 minutes.

i. Adjust settings according to patient condition, ABGs and chest X-ray results in conjunction with the physician orders.

j. Perform airway cuff pressure every 4 hours to maintain the pressure between 20-30 cmH2O or continuously via Intellicuff.

k. Change HME filter, bacterial filter and closed suction system every 72 hours and ventilator circuit when needed.

6.3.2 <u>Ventilator weaning:</u>

Follow weaning protocol for adult patients.

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7- Forms and Document:

None

8- References:

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