

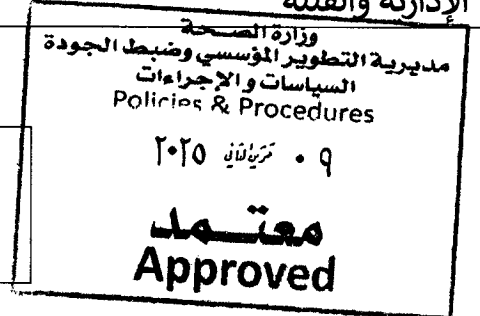


وزارة الصحة
سياسات وإجراءات

MOH	POL	HOS	RT	03	رمز السياسة:	اسم السياسة: High Flow therapy POLRSP
عدد الصفحات: 7 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: ٢٠٢٥/١١/١١		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



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

ختم النسخة الاصلية

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1- Policy:

- 1.1 High Flow therapy should be ordered by ICU physicians or pulmonologist.
- 1.2 FIO₂, Flow rates and Temperature should be documented Q 4 hours with observation of SPO₂ and total Respiratory Rate.
- 1.3 ICU/floor nurse can only adjust FiO₂ according to physician order and respiratory therapist should be informed.

2- Purpose:

To provide heated and humidified high flow mix of air and oxygen via a specialized nasal cannula system. It is able to deliver some distending airway pressure. The main effect of delivering high flow oxygen through a nasal cannula is to continuously flush out the nasopharyngeal dead space, allowing better CO₂ clearance and improving alveolar ventilation and oxygenation.

3- Scope:

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

4- Responsibilities:

It is the responsibility of respiratory therapist, ICU physicians and ICU/Floor nurses to implement the high flow therapy policy.

5- Definitions:

High flow therapy (HFT): The delivery of an adjustable mixture of heated and humidified air and oxygen at rates that exceed spontaneous inspiratory flow via a specialized nasal cannula system. It requires a flow generator, active heated humidifier, single heated circuit, and nasal cannula.

6- Procedure:

6.1 Potential benefits of HFT:

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- 6.1.1 Reduction in upper airway resistance.
- 6.1.2 Small pliable nasal prongs.
- 6.1.3 Warming and humidification of secretions.
- 6.1.4 Washout of nasopharyngeal dead space.
- 6.1.5 Continuous positive airway pressure (CPAP) effect.
- 6.1.6 High flow rates.
- 6.1.7 Decreased inspiratory effort.

6.2 Indications of HFT:

- 6.2.1 Respiratory distress dyspnea.
- 6.2.2 Post extubation respiratory support.
- 6.2.3 Postoperative respiratory support.
- 6.2.4 Weaning therapy from non-invasive mechanical ventilation (BiPAP/CPAP).
- 6.2.5 Pre-intubation oxygenation.
- 6.2.6 During invasive procedure (bronchoscopy).
- 6.2.7 Hypoxemic respiratory failure.
- 6.2.8 Obstructive sleep apnea syndrome.
- 6.2.9 Hypercapnic respiratory failure, COPD.

6.3 Contraindications of HFT:

- 6.3.1 Absolute contraindications:
 - 6.3.1.1 Blocked nasal passage.
 - 6.3.1.2 Life threatening hypoxia.
 - 6.3.1.3 Respiratory arrest
- 6.3.2 Relative contraindication of HFT:
 - 6.3.2.1 Abnormalities or surgery of the face, nose, or airway that preclude an appropriate-fitting nasal cannula.
 - 6.3.2.2 Upper airway surgery.

6.4 Complications of HFT:

- 6.4.1 Abdominal distension.
- 6.4.2 Aspiration
- 6.4.3 Barotrauma

6.5 Procedure:

6.5.1 Device: Vapotherm /Precision Flow:

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The VapoTherm device can deliver gases at flow rates up to 40L/min for adult and 2-8 L/min for neonate's .VapoTherm's transfer cartilage have pores of 0.01 microns which are consider smaller than bacteria (0.2-5) microns and thus form barrier for the pathogen.

6.5.1.1 Size cannula to patient by ensuring that nasal prongs do not fit tightly into nares (less than 1/2 the diameter of the nares).

6.5.1.2 Attach correct sized cannula for the patient and cartridge on to delivery tube.

Adjust the flow to the desired rate and fit to the patient. Flow ranges are shown in the table below:

Cartridge	Cannula type	ow rates
High flow	Adult	8-40 lpm
High flow	Pediatric	5-20 lpm
Low flow	Premature, neonatal, infant	1-8 lpm

6.5.1.3 The cannula or other interface should be connected to the patient only when the unit has warmed to the set temperature.

6.5.1.4 Droplet of condensation may appear at the end of patient delivery tube while unit is warming up. This is normal and will stop within few minutes. And it is may occurs in certain ambient at flow rates less than 5 lpm (low flow) or less than 10 lpm (high flow). To minimize condensation, it is recommended not to set temperature higher than 31 °C, if using low rates less than 5 lpm.

6.5.1.5 Assure correct gas filter assembly orientation.

6.5.1.6 Clamp the delivery tube of water bag when the machine in standby mode.

6.5.1.7 If High flow cartridge is installed the flow can't be set below 5 lpm.

6.5.1.8 If low flow cartridge is installed the flow can't be set above 8 lpm.

6.5.1.8 Regarding the High Flow Therapy (HFT), take into consideration the size of Nasal cannula in relation to the flow that is set.

6.5.2 The Oxi.Plus™ Nasal High Flow (NHF) system:

6.5.2.1 Flow rates of up to 80 l/min.

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6.5.2.2 Do not use NHF system without humidification as it may lead to patient airway damage. (Active humidification is mandatory).

6.5.2.3 Do not fully obstruct nostrils as it may lead to high pressure and patient injury.

6.5.2.4 You must be in standby mode to change to high flow oxygen therapy Flow rates per device.

6.5.3 HFT on Airvo

6.5.3.1 The flow may be from 2 - 60L/min depending on the patient interface.

6.5.3.2 The clinical temperature 31, 34, 37, if the patient tracheostomized set temperature on 37.

6.5.4 HFT on V60

6.5.4.1 HFT is accessed from the Standby mode.

6.5.4.2 The maximum deliverable flow rate varies based on nasal cannula orifice size and on patient nasal passage resistance. Flow range from 10 l/min – 80 l/min.

6.5.4.3 When placing a patient on HFT, make sure to set the upper pressure limit to the maximum which is 60. And humidifier on NIV mode.

6.5.5 Weaning:

6.5.5.1 **Adult:** to wean the patient off the system, started by reducing the oxygen concentration, usually, once the patient could tolerate 50% oxygen, reduced the gas flow by 5–10 L/min every 1–2 h, and monitored the effect. Once the patient reached a gas flow of 20 L/min, try the patient on either a cold-water humidified facemask or nasal cannula and assess their response.

6.5.5.2 **Pediatric:** To initially wean the FiO₂ to 0.4 before reducing flow rates by 0.5 L/min/h for neonates and 1 L/min/h for all other children HFT is discontinued once the flow rate is below the initial starting flow rate for the age of child and the oxygen saturations are maintained above 92% with a FiO₂ of 0.4.

6.5.6 Cleaning and disinfection:

6.5.6.1 The patient circuit is disposable and no disinfection is required.

6.5.6.2 The main unit should be wiped down with 70-90% isopropyl alcohol wipe or disinfectant material after use.

6.5.6.3 Unplug the precision flow while cleaning.



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6.5.6.4The AIRVO 2 must be cleaned and disinfected between patients according to the instructions in the Disinfection Kit Manual.

7- Forms and document:

None

8- References:

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7
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