

Procedure Information Sheet – Prone Positioning in Ventilation

1. What is this procedure?

- 1.1. Prone ventilation refers to the delivery of mechanical ventilation with the patient lying in the face-down. This procedure is carried out in patients with severe lung failure while on the mechanical ventilator to improve oxygen entry into the blood through the damaged lungs. The mechanisms include beneficial effects on lung volumes, improving gas exchange and lung perfusion, easier drainage of secretions, etc. It may improve survival compared with the usual face-up positioning for some patients

2. Why is there a need to do it?

- 2.1. When the traditional mechanical ventilation position cannot maintain blood oxygen level because of the severe lung failure, the procedure may be able to improve oxygenation.

3. How is it done?

- 3.1. A group of well-trained staff is needed to coordinate turning of face-up to face-down position safely. Adequate padding and support will be placed for potential pressure areas (face, upper chest, pelvis, knees) to decrease pressure over those areas. Checking of patient's eyes, pressure areas, tubes / lines / drains is done at regular intervals. Regular turning of patient's head and/or arms may be performed according to the practice of the unit.



Fig 1. A patient in prone positioning

4. When to stop?

- 4.1. The duration depends on the clinical situation upon decision of the doctor.

5. Risk and Complications

- 5.1. Significant hemodynamic instability or arrhythmia
- 5.2. Dislodgement/displacement/kinking of tube/lines/drains e.g., endotracheal tube, central venous line, chest drain, abdominal drains.
- 5.3. Pressure injury, for example: over face, breast, pelvis, male genital, knees.
- 5.4. Blindness.
- 5.5. Nerve injury especially at brachial plexus.
- 5.6. Difficulty in carrying certain procedures in face-down position, such as insertion of central venous lines, re-insertion of breathing tube (in case of dislodgement), cardiopulmonary resuscitation.
- 5.7. Increase in pressure of abdomen and/or head.

Hosp No. : HKID No.:
Case No. :
Name :
DOB : M / F
Adm Date :
Contact No.:

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6. **Possibility that the procedure cannot be carried out**

- 6.1. Known intubation difficulties
- 6.2. Instability of spine
- 6.3. Unstable facial fracture, pelvic fractures and/or long bone fractures
- 6.4. Unstable blood pressure and/or heart rhythm
- 6.5. Known high pressure inside abdomen or head
- 6.6. Post emergency abdomen surgery
- 6.7. Pregnancy
- 6.8. Extreme obesity

7. **Other treatment options**

- 7.1. If the patient chooses not to perform this procedure, it may affect the overall condition. The change of the condition is affected by a variety of clinical factors, including the individual patient's physical condition before the onset of illness, the type of disease, the response to treatment and the progress, etc. Your doctor will explain other suitable options to you.

8. **Disclaimer**

- 8.1. The information provided in this booklet is for general reference only. The risks and complications listed above are not exhaustive. Please consult your attending doctor for details.

9. **Reference**

- 9.1. Hospital Authority. Smart Patient Website.

I acknowledged the above information concerning the operation or procedure. I have also been given the opportunity to ask questions and received adequate explanations concerning the condition and treatment plan.

Patient/ Relative Signature: _____

Patient/ Relative Name: _____

Date: _____

