Guidance For:
Prone Positioning in Adult Critical Care

Full prone positioning guidance: https://bit.ly/2Uh0JiG

See LocSSIP for Proning in Critical Care

Pre-Procedure

- Ensure no contraindications (See above)
- Ensure adequate numbers of staff available (5)
- Ensure the team has considered any outstanding investigations, procedures and necessary transfers that would prove to be difficult to perform once the patient is prone

Airway/Breathing

- Difficult airway trolley checked and available. Note previous laryngoscopy grade and length of the endotracheal tube (ETT) at the lips
- Securely tape or tie the ETT, removing any anchor fast device. If tied then ensure padding in situ between tie and skin
- Suction oropharynx and airway prior to procedure
- Ensure closed circuit suctioning is available and working throughout procedure
- Patient should be pre-oxygenated with 100% O2 and ensure appropriate ventilator settings. Note tidal volume and inspiratory pressure
- Perform pre-proning arterial blood gas and document results **CVS/Lines**
- Ensure all lines are sutured and secured
- Discontinue non-essential infusions and monitoring
- Patient should be cardiovascularly stable. Prepare for post-proning instability with preparation of vasopressors/inotropes

Neuro:

- Patient should be receiving adequate sedation and analgesia. Deep sedation is usual (RASS score of -5)
- Consider muscle relaxation (Bolus dose may be required)

Skin/Eyes:

- Document skin integrity
- Eyes cleaned, lubricated and taped to prevent drying and ulceration. Ideally eyes should be protected with gel pad or similar

Tubes/Lines

- Nasogastric feed should be stopped, and the nasogastric tube aspirated
- Document NG length
- Chest drains need to be well secured and placed below the patient. Tubing should run down the patient and be managed by a separate team member. Clamp only if safe to do so.
- Adequate length on the remaining lines/cables running up the patient if above the waist, or down the patient if below

General

- Daily hygiene addressed, eg. mouthcare, washing, dressing, changing of stoma bags
- Ventilator as close to the patient as possible on the appropriate side. The patient should be rolled towards the ventilator

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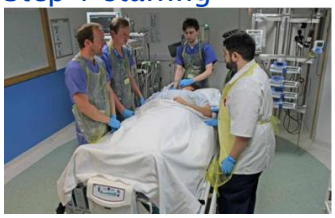
Supine to Prone

Patients should be rolled towards the ventilator, ideally away from any central venous devices.

Step 1 staffing



1)Minimum of 5 people including airway doctor
Team members to introduce themselves and state their role
Airway doctor positioned at head end and responsible for coordinating procedure
At least two other people either side of the patient, but more may be required depending on the size of the patient
Additional staff allocated to the management of chest drains/ECMO cannulas if in situ

Step 2 positioning

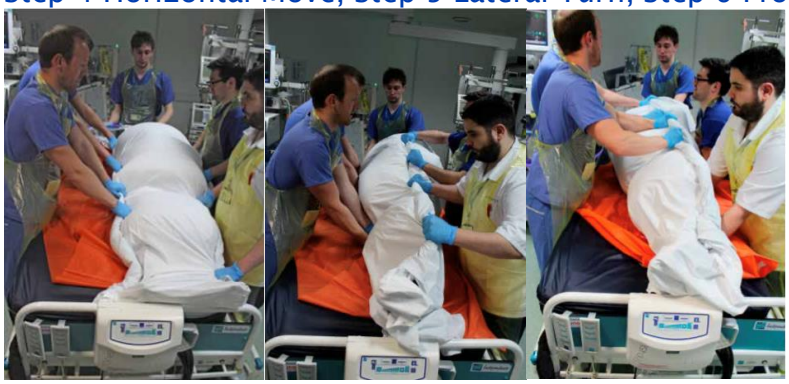
2)Patient should be laid flat with the bed in a neutral position, on a clean sheet with a slide sheet beneath
Arm closest to the ventilator is tucked underneath the buttock with the palm facing anteriorly (See diagram)
Anterior ECG electrodes removed
Pillows if required, can be placed over the chest, iliac crests and knees. They should be placed strategically, according to the patient's body habitus to reduce the pressure placed upon the abdomen

Step 3 wrapping

3)A clean bed sheet should be placed on top of the patient leaving only the head and neck exposed

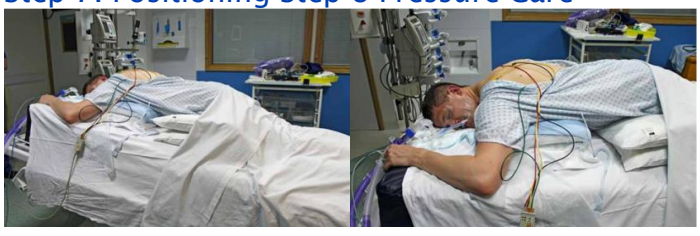
The edges from the top and bottom bed sheets are rolled tightly together thereby encasing the
patient between the two and keeping the pillows in the correct position on top of the patient

Step 4 Horizontal Move, Step 5 Lateral Turn, Step 6 Prone



4)Keeping the bed sheets pulled taught and the edges rolled tight, the patient should be moved horizontally to lie on the edge of the bed
The direction of the horizontal move should be away from the ventilator in the opposite direction to which the patient will be turned
5)On the call of the person at the head end, whilst maintaining a tight grip on the rolled up sheets the patient is rotated 90° to lie on their side
Staff on either side should then adjust their hand positions on the rolled up sheets, so that they now have hold of the opposite edge when compared to the horizontal move
6)On the call of the person at the head end, the rolled up sheet is pulled up from beneath the patient whilst the patient is carefully turned into the prone position.
Carefully support the head and neck and turn the head to face the ventilator as the patient is moved from the lateral to prone position.
Ensure the ETT is not kinked and
that a CO2 trace is still present on the capnograph. Note the length of the ETT at the lips and review ventilator settings.
Reattach the ECG electrodes and ensure all monitoring is re-

Step 7. Positioning Step 8 Pressure Care



7)Ensure the patient is in the centre of the bed, remove the slide sheet, Absorbent pad placed under patients head to catch secretions Carefully position the arms in the 'swimmers position'. Raise one arm on the same side to which the head is facing whilst placing the other arm by the patients side. The shoulder should be abducted to 80° and the elbow flexed 90° on the raised arm The position of both the head and arms should be alternated every two to four hours The patient should be nursed at 30° in the reverse trendelenburg position

8) Ensure optimal positioning of pillows tailored to the patient's body habitus

Pressure areas should be meticulously checked
No direct pressure on the eyes
Ears not bent over

ETT not pressed against the corner of the mouth / lips
Nasogastric tube not pressed against nostril
Penis hanging between the legs with the catheter secured

Lines / tubing not pressed against the skin

Appendix 1. LocSSIP PROCEDURE SAFETY CHECKLIST: Prone Ventilation in Critical Care

BEFORE THE PROCEDURE		
Have all members of the team introduced themselves?	Yes	No
Consultant/Senior nurse aware	Yes	No
Any contraindications	Yes	No
Re-intubation equipment available	Yes	No
Eyes taped and lubricated	Yes	No
ETT taped/tied (ETT anchor devices removed)	Yes	No
Stop NG feed and aspirate NGT	Yes	No
Non-essential monitoring + infusions discontinued	Yes	No
Adequate length on remaining lines going either up or down bed	Yes	No
Chest drains below patient/clamped only if safe to do so.	Yes	No
Assess and document skin integrity	Yes	No
Anti-pressure dressings to bony prominences/nipples	Yes	No
Daily hygiene completed (ie. mouthcare/washing/dressings etc.)	Yes	No
Equipment available as per guideline	Yes	No
Are there any concerns about this procedure for the patient?	Yes	No
Concerns		

PaO2/FiO2 Ratio	
Grade Laryngoscopy	
Length ETT at teeth	
Length NGT at nostril	
Airway Doctor	
Consultant in charge	

TIME OUT Verbal confirmation between team members before start of procedure		
Minimum of 5 people plus 1 for chest drains	Yes	No
All team members aware of role	Yes	No
Appropriate ventilator settings	Yes	No
Cardiovascular stability	Yes	No
Adequate sedation (ie. RASS -5)	Yes	No
Adequate muscle relaxation – consider need for bolus	Yes	No
Pillows positioned correctly – chest, pelvis, knees	Yes	No
Team members familiar with procedure	Yes	No

Patient Sticker

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SIGN OUT		
ETT length at teeth/Capnography	Yes	No
Monitoring re-established	Yes	No
Ventilator settings reviewed	Yes	No
Lines secured	Yes	No
Chest drains below patient + unclamped		
Pressure areas checked - ETT not pressing against lips - No pressure on eyes - Ears not bent over - NG not pressed against nose - Penis between legs + urinary catheter secured - Lines / tubing not resting against skin - Pillows positioned correctly	Yes	No
Slide sheet removed and reverse trendelenburg 30 °	Yes	No
NG position confirmed and resume enteral feed	Yes	No
Post-proning care bundle available	Yes	No

Signature of responsible person completing the form	
Procedure Date + Time	

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