

**Guideline for the Prevention of Aspiration
of Ventilated Patients within ICCU (30 Degree Tilt)**

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Key Amendments

Date	Amendment	Approved by
20 th March 2020	Document extended for 6 months during current COVID-19 pandemic	Dr Burtenshaw

Ventilator-associated pneumonia accounts for up to half of all infections in the intensive care unit (Vincent et al, 1995). Pneumonia prolongs the duration of mechanical ventilation and the subsequent stay in the ICU. Kollef (1993) identified that the supine body position is an important independent risk factor for ventilator associated pneumonia and subsequent randomised clinical trials have supported this finding (Draculovic et al, 1999).

These trials showed that ventilated patients nursed in the semirecumbent position had lower rates of aspiration and pneumonia than those nursed in the supine position.

Despite the strong evidence to support this prevention strategy, it is clear that these principles are under utilised in practice.

Cook et al, (2002) looked at the reasons why these principles should be under utilised and what was needed to improve practice. It is from this study of healthcare professionals that we are taking our lead in the improvement and uptake of this practice in critical care.

. Recently the use of endotracheal and tracheostomy tubes allowing suction above the cuff has been shown to further reduce the risk of VAP and a trust guideline is currently being written

Literature is now widely available to support the amalgamation of various elements of effective practice into care bundles, and these are used as quality indicators in Intensive care The care bundles incorporate DVT prophylactics, gastric ulcer prophylaxis, daily discontinuing of sedation and nursing the patient in a semirecumbrant position.

As practitioners it is clear that this simple but effective practice has a direct impact on infection rates and the quality of the care that our patients will receive.

The Critical Care Directorate has put together some simple guidance for the promotion of this practice.

RISK FACTORS.

1. Supine body positioning.
2. Enteral feeding.
3. Prolonged mechanical ventilation.
4. All sedated patients.

MANAGEMENT OF RISK FACTORS.

The definition of Semirecumbent has been agreed locally to be sat up to an angle of 30°. All level 3 patients should have a minimum resting height of around 30°. This should be established in whatever resting position the patient is placed e.g. Tilted to the side for pressure relief or on their back.

The bedside Staff Nurse, Nurse-in-Charge and Anaesthetic staff will ensure that a semirecumbent position is maintained at all times, unless an exclusion is applicable. This guideline does not imply that patients should not be sat at angles greater than 30°. The position of the patient is charted hourly on the patients' observation chart in the space made available for "position".

Cardiovascular instability this may require patients to lie in the supine position. Once the period of instability has been resolved the 30° position should be re-established.

Physiotherapy treatment may require the patient to be positioned during and following treatment. The patient will be re-positioned to an angle of 30° after the treatment is complete. If the patient is having a nasogastric feed and needs to be positioned for a short time below 30° the feed should be stopped and recommenced once repositioned to an angle of 30°

EXCLUSION CRITERIA.

- Spinal instability, suspected or a spinal cord injury. These patients are excluded from these guidelines and the information documented in the patients records. If the bed can be tilted the degree at which the tilt is applied should be documented on the observation chart.
- Patients requiring prone positioning. (Severe respiratory instability requiring specific positioning)
- Patients with acute pelvic injuries or unstable pelvis.
- Patients with specific instructions from the consultants. ie Pelvic injuries or non-routine hip surgery
- Haemodynamic instability confirmed (daily basis) with Anaesthetic Consultant
- Acute abdominal conditions confirmed with Anaesthetic Consultant (daily basis) and Surgical Consultant.

References

Berenholtz. SM, Dorman.T, Ngo, K, Pronovost, PJ. Qualitative review of intensive care unit quality indicators. Journal of Critical care. 2002; 17(1): 1-12.

Cook, DJ. MD; Meade, MO. MD; Hand, LE. RRT; McMullin, JP. MD. Toward understanding evidence uptake: Semi-recumbency for pneumonia prevention. Critical care Medicine, Volume 30 (7), July 2002. 1472- 1477.

Drakulovic MB, Torres A, Bauer TT, et al (1999) Supine body position as a risk factor for nosocomial pneumonia in mechanically ventilated patients: A randomised trial Lancet 354: 1851-1858

Fagon JY, Chastre J, Vuagnat A, et al (1996) Nosocomial pneumonia and mortality among patients in intensive care units. JAMA 275: 866-869

Heyland DK, Cook DJ, Griffith LE, et al (1999) The attributable morbidity and mortality of ventilator-associated pneumonia in the critically ill patient: The Canadian Critical Care Trials Group. American journal of Critical Care Medicine 159: 1249-1256

Kolef M (1993) Ventilator-associated pneumonia: A multivariate analysis. JAMA 27: 1965-1970

Vincent JL, Bihari DJ, Suter PM, et al (1995) The prevalence of Nosocomial pneumonia in intensive care units in Europe. (EPIC). JAMA 274: 639-644