

Position Statement

Mechanical Ventilation

Purpose/Scope

The College of Emergency Nursing Australasia Ltd. (CENA) is the peak professional nursing body representing emergency nurses throughout Australasia. This position statement outlines the recommended minimum nursing staffing, education and equipment standards required when caring for the mechanically ventilated patient requiring emergency care.

Definitions

Mechanical ventilation - the use of an automatic mechanical device to perform all or part of the work the body must produce to breathe (William & Wilkins, 2005).

Introduction / background

Mechanical ventilation is routinely used in emergency care as a component of resuscitation and ongoing respiratory support of people with a wide range of critical illnesses or injuries (Rose and Gerdtz, 2007). The morbidity and mortality associated with receiving mechanical ventilation are dependent on the underlying severity and complexity of the illness and on appropriate application and monitoring of the technology. Caring for mechanically ventilated patients requires continuous nursing presence, specialised nursing skills and knowledge and appropriate resources to promote patient safety and quality care.

Position

Patients receiving mechanical ventilation require constant supervision to ensure their safety and as such necessitate a one-to-one nurse to patient ratio. There is a lack of empirical evidence specifically relating to mechanically ventilated patients requiring emergency care. However, the Australasian College of Intensive Care Medicine and the Australian College of Critical Care Nurses (ACCCN) mandate a one to one ratio for patients requiring mechanical ventilation within the intensive care environment. As such, CENA recommends a similar nurse to patient ratio apply within the emergency care environment.

CENA also recommends that patients requiring mechanical ventilation, once stabilized be transferred to an intensive care environment unless otherwise indicated e.g. palliative care.

Standards

Standard 1 – Staffing

- 1.1 Emergency patients receiving mechanical ventilation require a staffing ratio of one registered nurse to one patient.

Standard 2 – Competency

- 2.1. The registered nurse is a qualified, experienced registered nurse who demonstrates and maintains theoretical and clinical expertise in caring for emergency patients requiring mechanical ventilation.
- 2.2. The minimum level of preparation for this role is to have undertaken an evidence-based competency education program. However, CENA recommends that the optimum qualification required should be at least a relevant postgraduate certificate/diploma.
- 2.3 The registered nurse participates in assessment, education, training and professional development relating to mechanically ventilated patients.
- 2.4 The registered nurse demonstrates competency to provide care to a mechanically ventilated patient, which may be evidenced by demonstration of competence via annual assessment or within an advanced life support assessment program.
- 2.5 The registered nurse is able to demonstrate current competency in advanced life support skills

Standard 3 – Resources and environment

- 3.1 Care of the mechanically ventilated patient must take place in a safe environment, and as such, be equipped with appropriate resources and equipment to ensure patient safety. This includes the presence of appropriate staff competent in the skill of tracheal intubation (e.g. medical practitioner, paramedic or nurse with training and current accreditation in invasive/difficult airway management).
- 3.2 CENA recommends that these patients are treated and managed in an appropriately equipped resuscitation area.

Responsibilities

College of Emergency Nursing Australasia

Develop and promote a statement defining the recommended minimum nursing staffing, education and equipment standards required when caring for the mechanically ventilated patient requiring emergency care.

Emergency Nurse

Maintains competence to care for mechanically ventilated patients

Conclusion

Mechanical ventilation is a complex and invasive intervention, which can have serious clinical implications if not properly applied or resourced. Appropriate allocation of resources such as equipment, education, environment and one to one nurse staffing ratio are required to provide adequate standards of care. Given advances in complex technologies, the dynamic nature of emergency care and increased demands on emergency services it is imperative that these standards are ensured to secure safe and optimal delivery of care to all critically ill emergency patients.

*Associated documents

The following documents should be read in conjunction with this Position Statement:

- Standards for the Emergency Nurse Specialist

References

- Australian College for Critical Care Nurses. (2003) *ACCCN ICU Staffing Position Statement (2003) on Intensive Care Nursing Staffing*
- Australian & New Zealand College of Anaesthetists. (2000). *Recommendations on monitoring during anaesthesia*. PS18.
- College of Intensive Care Medicine Australian and New Zealand. (2010). *Minimum standards for intensive care units*.
- Rose, L., & Gerdtz, M. (2007). Invasive ventilation in the emergency department Part 1: What nurses need to know. *Australasian Emergency Nursing Journal*. 10(1): 21-25.
- Rose, L., & Gerdtz, M. (2007). Invasive ventilation in the emergency department Part 2: Implications for patient safety. *Australasian Emergency Nursing Journal*. 10(1): 26-29.
- William & Wilkins (2005). *Stedman's medical dictionary for the health professions and nursing (5th ed.)* USA: Lippincott.

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