

2007

Position Statement on Workforce Requirements in Critical Care Units



European federation
of Critical Care
Nursing associations -
EfCCNa



European federation of Critical Care Nursing associations

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Background

The initial development of critical care in the 60's as a specialty started with the grouping of critically ill patients into clinical areas which were subsequently named intensive care units (ICUs). Clearly identified separate geographical areas were established. However, as this specialty developed, a degree of segregation from other hospital staff and wards also developed. The development of separate ICUs led to recognition that skilled personnel and specific technological resources were required to deliver high quality care for very sick and unstable patients.^{1,2}

Critical care is a global term that covers a diverse set of services. Intensive care provision is focused on very ill patients, who can benefit from the attention of highly trained and skilled personnel applying modern techniques and interventions appropriately, intelligently and compassionately. But critical care is also given in high dependency units (HDUs), which provide an intermediate level of care between ICUs and ordinary wards, and in specialist areas such as renal units or coronary care units.³

Despite of use of a common label, intensive care units vary greatly in terms of case-mix, management structures, skill-mix of staff, efficiency, scale, workload patterns and outcomes.

The delivery of critical care services to patients involves a complex network of interactions between many people working within the hospital.

As the population changes and medical advances provide the opportunity to treat more patients, demand pressures grow. The number of staff within ICUs has also grown and healthcare staff is vital but a costly resource. Critical care is very expensive compared with most health care because of the higher staffing levels, use of expensive technologies and therapeutic interventions.

Attempts to reconfigure the nursing workforce in order to reduce staffing budget have resulted negative patient outcomes. According to the evidence, the effects of reducing nurse-patient ratio are associated with:

- Delays in the time taken to wean patients
- Adverse effect on nosocomial infection rates
- increase in patient's readmission rates this for ICU
- A rise in medication errors
- An increase in the length of ICU
- Mortality rates also increase and those adverse events lead to cause a secondary increase on the hospital cost.^{4,5,6,7,8,9,10,11,12,13}

European Federation of Critical Care

From its beginning the European Federation of Critical Care Nursing Associations (EfCCNa) has achieved its aims through a series of position statements. "The Workforce study project" is a new initiative for EfCCNa, because through the last decade there has been considerable debate over the numbers of nurses required to staff ICUs, and in particular over the ratio of nurses to critical care patients. It is an area of controversy and disagreement. While a full debate is difficult, a position statement on nursing workforce may allow critical care nurses, European associations of critical care nursing, hospital's managers and indeed National Health Systems to have a European source for reference.

Aim of position statement

The aim of this study was to review the literature on staff-patient ratios for Intensive Care Units, define the levels of care and recommended gold standard nurse/patient ratios within European Intensive Care Units.

Objectives of the Study

1. To have an EfCCNa position statement on workforce
2. To present the results of the study in conferences, and in meetings of government bodies at national and European level
3. To publish the results of the study in terms of recommendations in Connect and in EfCCNa website

Methods

To identify literature for critical review, the following databases were searched: EMBASE (1995-2007) and MEDLINE (1995-2007)

To guide the search, the following medical subject heading (MeSH) terms were included: Critically ill patients, Manpower shortage, critical care nursing, levels of care, workload and workforce.

Although the search was open to include non-English-language citations, none were obtained that were of relevance. The project also used its network of links with 22 critical care associations to identify any local or national works, which may not have been indexed in these two databases.

Levels of Care / Levels of patient dependency

Classification of the three levels of care are proposed to accommodate university medical centers, large community hospitals, and small hospitals with limited critical care capabilities: ¹⁴

- Level I critical care: ICUs providing comprehensive care of the critically ill patient including multidisciplinary and medical care (e.g. neurosurgery, cardiothoracic surgery, multiple trauma, Burn Units etc.)
- Level II critical care: ICUs providing comprehensive care of the critically ill patient but requiring for specialty care.
- Level III critical care: ICUs providing initial resuscitation and stabilization of the critically ill patient but usually (depending on the patient's critical illness and available resources) requiring transfer for comprehensive and specialty care.

Classification of hospital beds: ^{15, 21}

- Ward: Category 0 - patients whose needs can be met through normal ward care in a hospital.
- At-risk: Category 1 - patients at risk of their deteriorating conditions, or those recently relocated from higher levels of care, whose needs can be on an acute ward with additional advice and support from the critical care team. This category may be undertaken by an outreach care nurse.
- High Dependency Care: Category 2 - patients requiring more detailed observation or intervention including support for a single failing organ or post-operative care and those "Stepping down" from a higher level of care
- ICU: Category 3 - patients requiring advanced respiratory support alone or basic respiratory support together with support of at least two organ systems. This level includes all complex patients requiring support for multi-organ failure.

Nursing Gold Standards in Critical Care Units

1. Critically ill patients (clinically determined) require one registered nurse at all time (1:1) ^{4, 16, 17, 18}
2. High dependency patients (clinically determined) in a critical care unit require no less than one registered nurse for two patients at all time (1:2 or 1:2.5) ^{16,19}
3. Patients at risk require one registered no less than one registered nurse for four patients at all time (1:4) ¹⁹

Recommendations for critical care areas

1. Levels of care (LOC) should be defined according to the complexity of care and patients' treatment. ¹⁹
2. Nurse staffing levels should be determined primarily by workloads (number of patients and case mix).¹⁹
3. Unit and ward managers need to recognize all the variables before they decide on appropriated staffing. ²⁰
4. Health care providers should support their staff in developing personally and professionally, ensuring that nurses are actively involved in continuing education, having a regular appraisal, and a clinical supervision as well as having a personal development plans. ^{21, 22}
5. Health care assistants are now widely involved in the critical care workforce. New roles for any health care worker should only be developed where they can truly meet the needs of the patient and not where the main purpose is to reduce the level of skilled care available to save costs. Registered nurses remain responsible for the assessment, planning and evaluation of patient care. ^{21, 23}
6. Each ICU should measure and control regularly the efficiency of the use of nursing manpower evaluating the work utilization ratio (WUR) by recommended scoring tools. ^{5, 17, 24, 25, 26, 27}

7. Ensuring an adequate supply of registered nurses to work in critical care (quantity) and ensuring an adequate supply of qualified critical care nurses (quality)^{28,29}
8. We focus the position statement on about registered nurse, but we can expect that the standards can change depending on nursing education level.

Copyright Statement

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