Staffing and Productivity in the Emergency Department

Description

Emergency nurses are vital for the delivery of quality emergency care. The Institute of Medicine defines quality as care that is safe, effective, patient-centered, timely, efficient, and equitable.\(^1\) Quality care has been linked to both adequate nurse staffing ratios and the educational preparation level of the nursing staff (i.e. associate, bachelor, masters, or doctorate).\(^2,3\) When nurse staffing is inadequate, due to suboptimal numbers or educational level, nurses may be unable to sufficiently provide emotional comfort and education to their patients, reassess vital signs, or provide pain medications,\(^3\) plus a higher rate of work-related injuries can occur.\(^4\) Quality care also is associated with a reduction in adverse patient events (e.g. medication error, failure to rescue, missed or delayed care)\(^2,3\) and research findings suggest that patient deaths occur more often when patient-to-nurse ratios are increased.\(^5\) Patient care, nurse satisfaction, and nurse intention to leave also are impacted by nurse staffing.\(^3,5,6\) Duffield et al. reported patient care was negatively affected when “nurses perceived an unsafe environment, where resources in the form of leadership and ancillary staff were perceived to be lacking, [and] where the proportion of Bachelor of Science in nursing (BSN)-prepared nurses was lower” (p. 252).\(^3\) These findings suggest that staffing and productivity are multi-factorial problems. Extrapolating from evidence gathered from studies of inpatient care settings, increasing the number of baccalaureate prepared nurses working at the stretcherside in emergency settings would positively affect patient outcomes.

California was the first state to enact legislation regulating nurse-to-patient ratios.\(^7\) Despite improved nurse-patient ratios in California, the failure to rescue (deaths in patients who developed serious complications) rate has not improved.\(^8\) It is possible that in order to maintain zero budgets as the number of nurses were increased in California hospitals, the number of unlicensed assistive personnel (UAP) may have decreased, resulting in nurses being required to perform tasks previously performed by UAPs. Improved emergency department (ED) nurse staffing ratios may improve some measures of care, but not all.\(^9,10\) For example, outcome measures in one urban, moderate-sized, teaching hospital in California significantly improved time to antibiotic administration within four hours of arrival and a decreased number of patients leaving without being seen; however, the ED length of stay significantly worsened.\(^10\) In contrast, Chan, Killeen, Vilke, Marshall, and Castillo found compliance to California-mandated nurse staffing ratio guidelines yielded significantly reduced ED wait time and throughput time compared to time periods when the 4:1 nurse staffing ratio guidelines were not met.\(^11\)

The Health Resources and Services Administration projects the demand for nurses to increase by 21% from 2012 to 2025 resulting in a shortfall in the supply of nurses in at least 16 states.\(^12\) The predicted acuity and increased complexity of ED patients is likely to require increased numbers of emergency nurses.\(^3\) This anticipated staffing gap reflects the need for a focus on emergency nurse staffing and productivity.

ENA Position

It is the position of the Emergency Nurses Association that:

1. Registered nurses are essential to the delivery of quality, cost-efficient emergency care.
2. Patient care delivered by nurses educationally-prepared with a BSN or higher degree in nursing can lead to improved patient outcomes and nurse satisfaction.
3. Regardless of emergency department census and acuity, a minimum of two registered nurses responsible for providing care in the emergency department at all times facilitates safe emergency care.
4. Ongoing systematic evaluation of staffing and productivity is essential to the delivery of quality emergency care.
5. Emergency nurses support the use of an evidence-based methods to calculate staffing and productivity.

6. Evaluation of staffing and productivity is based on patient census and acuity; direct and indirect time for care delivery; experience and skill mix of the ED staff; and include the impact on patient and emergency nurse safety and satisfaction, and the recruitment and retention of qualified nurses.

7. Emergency nurses support further research regarding staffing models and their impact on patients, nurses, and organizations.

Background

There are a number of models and algorithms available to establish ED staffing requirements, some have been successfully used to guide nurse staffing and productivity. Outside the “theoretical” ED, predictive staffing models can be problematic due to variations in census, patient acuity, nursing competencies, and nursing skill mix. Also challenging to staffing requirements is the presence of patients boarded in the emergency department and their requisite level of care. Any staffing model or algorithm may need to account for nursing seniority and expertise of nursing personnel as well as the proportion of personnel supporting the work of nurses. Other factors influencing nurse staffing requirements include time needed for patient documentation, patient/family education, and care coordination; supervision and delegation activities based on effectiveness and efficiency of support personnel; and ethical decision-making.

In Australian settings, staffing ratios vary by type of hospital/emergency department and shift worked. For example, trauma center EDs tend to have more nurses per number of ED beds given their status as tertiary care centers and expanded catchment area for trauma patient referrals.

Ultimately, the minimum acceptable requirement suggested by the Emergency Nurses Association’s (ENA) Staffing Best Practices Work Group for safe, quality care in any ED is two registered nurses around-the-clock. This recommendation was based on ENA’s Staffing Guidelines calculation tool which takes into account department-specific data for the calculation of full-time equivalents, but there is currently no available similar tool to develop shift-by-shift staffing. This tool was developed by ENA in 2003 to identify safe, effective, and realistic staffing in emergency departments. Hours per patient visit (HPPV) had been a common method for calculating staffing and benchmarking was used to compare staffing across facilities. ENA’s new tool was designed to determine best practice staffing.

A primary component outlined in the 2012 American Nurses Association’s (ANA’s) Principles for Nurses Staffing stated “direct care registered nurses must have a substantive and active role” (p. 6) in the determination and evaluation of nurse staffing guidelines. It is fundamental when conducting any evaluation of staffing and productivity to include the impact on emergency nurse safety, patient and staff satisfaction, and the recruitment and retention of qualified nurses. Nurse-sensitive indicators reflective of patient outcomes can include time required for direct and indirect care delivery, employee injury and illness rates, turnover, overtime, compliance to healthcare regulations, and patient and nurse satisfaction. Research findings, as well as ANA’s Principles for Nurse Staffing, reflect the complexity of appropriate nurse staffing and the need for extensive research to fully understand and develop best practice guidelines in ED settings.

Resources

Emergency Nurses Association staffing guidelines: https://www.ena.org/practice-research/Practice/Pages/Staffing-Guidelines.aspx

References


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