Staffing and Productivity in the Emergency Department

Position Statement

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Staffing and Productivity in the Emergency Setting

Description

Emergency nurses play a pivotal role in delivering high-quality, timely, and effective care within a dynamic and complex environment. Given the unpredictable and often, high-acuity nature of the emergency department (ED), strategic staffing is essential to safeguarding both patient outcomes and staff well-being. Critical elements in the evaluation of ED staffing include: (1) calculation of the appropriate number of full-time equivalents (FTEs) (2) ensuring optimal staff deployment across shifts to maintain continuity of care; and (3) assessing workforce productivity using metrics such as the ratio of actual productive hours to targeted benchmarks (Babcock et al., 2024). It is important that these considerations be integrated holistically to support evidence-informed workforce planning that promotes clinical excellence, operational efficiency, and staff satisfaction and engagement.

There are strategic (long-term) and tactical (short-term) drivers or objectives to consider when making ED staffing and productivity decisions. Strategic drivers include quality, safety, service, and cost (Shin et al., 2018). The National Academy of Medicine identified six performance characteristics to improve quality healthcare that remain relevant today: safe, effective, patient-centered, timely, efficient, and equitable (Agency for Healthcare Research and Quality, n.d.). Evidence has established relationships between quality of care and adequate nurse staffing and the educational preparation level of the nursing staff (i.e., associate, bachelor, masters, or doctorate) (Ramsey et al., 2018). Tactical drivers include patient volume, acuity, length of stay, boarding/holding, and staff skill mix (provider, licensed, unlicensed, educational preparation, and experience) (Moteri et al., 2024; Babcock et al., 2024).

Studies show that specific levels of nurse staffing are associated with improved clinical and economic outcomes that meet or exceed the strategic and tactical drivers or objectives (Catania et al., 2024; Drennan et al., 2024; Kim et al., 2025). Adequate nurse staffing improves patient and nurse satisfaction as well as reduces procedural and medication errors, patient mortality, hospital readmissions, and length of stay (Blume et al., 2021; Catania et al., 2024; Kim et al., 2025). Increased staffing reduces the rates of adverse nurse-sensitive outcome quality indicators such as patient falls, pressure injuries, central line infections, and hospital-acquired infections (Catania et al., 2024). Additionally, nursing fatigue is reduced with appropriate nurse staffing, promoting safety, retention, and satisfaction (Catania et al., 2024; Kim et al., 2025).

Traditionally, and in other nursing departments, nursing unit staffing is based on nurse-to-patient ratios, where acuity and patient type are consistent. However, this method is insufficient in EDs because of volume and acuity variations (Babcock et al., 2025). For example, within the ED, at the onset of their care, high-acuity cardiac, stroke, or trauma patients may require care from multiple RNs at once, yet multiple low-acuity patients may be cared for by one RN while maintaining safety and satisfaction. In this way, nurse-to-patient ratios are ineffective when addressing ED staffing needs. A method reflective of ED dynamics is ideal. A recent community needs assessment, including situational, seasonal, or permanent changes in the community or population served, is also important to incorporate into staffing decisions. Finally, there is no evidence to support the idea that nurse staffing ratios can be based solely on number of beds in the ED (Lordache et al., 2020).

The operational budget, staffing, and productivity are interdependent. To evaluate and optimize safe staffing for the ED, information is required related to the targeted matrices the institution has already adopted. Data gathered from the emergency department information systems (EDIS) on patient acuity, arrivals and discharges per hour, and volume per hour by day of week, as well as nurse satisfaction and

patient experience surveys, are important factors to consider in the determination of appropriate staffing (Babcock et al., 2025).

ENA Position

It is the position of the Emergency Nurses Association (ENA) that

1. Emergency nurses are essential to the delivery of safe, quality, cost-effective emergency care and play an active role in determining and evaluating nurse staffing guidelines.

2. Emergency nurses support the use of evidence-based methods to determine staffing and productivity.

3. To facilitate safe emergency care, a minimum of two RNs be present whose primary responsibility is patient care in the ED at all times, regardless of the ED size, capacity, census, or acuity.

4. It is the responsibility of organizational leadership to ensure adequate staffing by considering acuity, volume, and other factors impacting safe emergency care.

5. Emergency nurses actively precepting be excluded from regular shift staffing numbers.

6. The worked hours per patient visit (wHPPV) staffing calculation method enables the separation of caregiver hours for both ED and boarded patients.

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

Background

Healthcare costs continue to soar. Labor expenditures account for over 50% of hospitals' patient care costs. In 2022, because of contract travel nurses, there was a 213% increase in hourly wages for nurses. The percentage of travel nurse staffing was 19% in 2019 and rose to 60% in 2022. The cost per patient for labor saw an increase of 24.7% (American Hospital Association, 2022, 2023). As good stewards of resources, nurse leaders manage all elements of operations, which includes staffing and productivity. Best practice when developing nurse staffing plans includes a multi-faceted approach, and consideration of many variables. Ideally, staffing plans balance labor cost without compromising patient safety, patient satisfaction, or staff satisfaction (Lordache et al., 2020).

There are several models and algorithms available for establishing ED staffing requirements, including wHPPV (Lordache et al., 2020). However, outside of the "theoretical" ED, predictive staffing models can be problematic due to variations in census, patient acuity, nursing competencies, education time for initial and ongoing staff training, and nursing skill mix (ANA, 2020; Saaiman et al., 2021). Also challenging for staffing requirements is the number of patients boarded in the ED and the extended time frames needed for their care. Aside from consuming ED staff time, boarding patients in the ED delays patient flow. These circumstances also increase patient mortality and morbidity, errors, delayed or missed physician orders, time to surgery, and contribute to poorer outcomes for cardiac, stroke, and sepsis patients. Additionally, they are associated with decreased patient satisfaction (Rogers, 2020). Any staffing model or algorithm should consider nursing skill and experience, and the proportion of unlicensed supportive personnel (ANA, 2020). Other factors influencing nurse staffing requirements include time needed for documentation; patient/family education; care coordination, supervision, and delegation activities based on effectiveness and efficiency of support personnel; and ethical decision-making (Sharma & Rani, 2020).

In some settings, staffing ratios vary by type of hospital/ED and shift worked (Pourmand et al., 2023). 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 (Pourmand et al., 2023).

Worked hours per patient visit is a common method for calculating staffing and productivity. This metric is calculated by dividing the number of employee hours by the number of patient visits that occur within the same time period. Although wHPPV may be a good starting point for determining staffing need on an annualized basis, this calculation makes it difficult to adjust for the daily and seasonal variations in volume, acuity, and length of stay as well as boarded patients. In the use of a wHPPV productivity calculation, it is recommended that it enable the separation of caregiver hours for ED patients and boarded patients to account for the variation in workload and demand for resources they each create. Other considerations for non-productive employee hours, such as medical leave or vacation also need to be accounted for in staffing decisions.

Increasingly, ED managers can access department metrics to align nurse staffing with patient volume and acuity variations. Formulas for average hourly volume and average hourly nurse demand are also becoming available to objectively adjust staffing to meet demands without sacrificing the quality and safety of patient care (Griffiths et al., 2020). Many methods or tools to determine nurse staffing requirements have been created; however, successful implementation includes significant investment to train and engage staff (Delao et al., 2024; Griffiths et al., 2020).

For ED staffing models to be both safe and sustainable, they must reflect the reality that onboarding and precepting are resource-intensive, high-stakes processes (Saaiman et al., 2021). Counting preceptors and preceptees as fully productive caregivers risks compromising both educational outcomes and patient safety. By excluding these roles from core staffing calculations and allocating dedicated resources, EDs can ensure that new staff are adequately supported, experienced nurses are not overburdened, and the broader goals of workforce development and retention are advanced (Saaiman et al., 2021). Removing onboarding hours from core staffing calculations allows the preceptor to focus on training the new hire without burden of a separate assignment and increases patient safety while onboarding (Peta, 2023).

A primary component outlined in the American Nurses Associations (ANA) Principles for Nurse Staffing stated “direct care nurses must have a substantive and active role” in the determination and evaluation of nurse staffing guidelines (ANA, 2020). 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 (Yu et al., 2024). 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 with healthcare regulations; and patient and nurse satisfaction (ANA, 2020). Adequate ED staffing may be calculated by blocks of days or hours by using the number of beds in a department, the number of patients waiting for treatment, patient acuity, and nurse skill level or experience (Delao et al., 2024; Lordache et al., 2020; Mehra et al., 2024).

When nurse staffing is inadequate for any reason, emergency nurses may be unable to provide the care their patients require. The nurse may be unable to sufficiently provide emotional comfort and education to their patients, reassess vital signs, or provide pain medications (Griffiths et al., 2020). There is also evidence of higher rates of work-related injuries and that patient deaths (unexpected cardiac arrest) occur more often when ED staffing is inadequate (Drennan et al., 2024). Patient care, nurse satisfaction, and nurse intention to leave are affected by nurse staffing (Anderson, 2022; Drennan et al., 2024; Janhunen et al., 2020; Muir et al., 2023). These findings suggest that staffing and productivity are complex issues.

In 2004, California was the first state to enact legislation regulating nurse-to-patient ratios (Dierkes et al., 2022) — emergency department: 1:4 for general emergency; 1:1 for trauma; and 1:2 for critical care (ANA, 2020). There are three other states that have adopted ratios, Oregon is the most recent state in 2023; New York implemented a Safe Staffing for Quality Care Act in 2021; and Massachusetts enacted a 1:1 ratio in 2014 (Roberts, 2023). Many other states have started the process but are awaiting legislation

(Roberts, 2023). In 2023, British Columbia was the first Canadian province to follow the lead of other jurisdictions globally in introducing nurse-to-patient mandated minimum hospital nurse staffing. British Columbia introduced a policy initiative targeting the retention, re-engagement, and recruitment of nurses including the establishment of minimum nurse-to-patient ratios (mNPRs) (British Columbia Ministry of Health, 2024) — emergency department: 1:3 for general emergency; 1:4 for short-stay observation and medical/surgical short stay; and 1:1 for trauma and critical care (British Columbia Ministry of Health, 2024).

As demonstrated by the effects of the COVID-19 pandemic, which resulted in sporadic, unpredictable, and increased ED demand, ED staffing guidelines are more difficult than ever to define in special circumstances. Under these conditions, it is important that EDs optimize staffing to account for high patient acuity, increased volume, and potential for boarding, as well as nursing time to provide care that includes the donning and doffing of personal protective equipment (PPE), PPE cleaning and servicing, and personal hygiene (Wells et al., 2021). Further investigation regarding staffing for prolonged emergency conditions such as a pandemic or other disaster is clearly indicated.

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