

Patient Safety Tip of the Week

September 1, 2020

NY State and Nurse Staffing Issues

Several of this month’s What’s New in the Patient Safety World columns raised the issue of nurse:patient staffing issues and nurse workload. We discussed state legislative efforts to improve nurse staffing ratios in our October 2018 What’s New in the Patient Safety World column [“Nurse Staffing Legislative Efforts”](#). There, we specifically discussed proposed legislation in Massachusetts, which eventually failed.

Now New York State has reintroduced proposed legislation to improve nursing staffing ratios in hospitals. The Safe Staffing For Quality Care Act would mandate the nurse-to-patient ratio at 1-to-1 for trauma emergency care and advanced labor stages, 1:2 for intensive care, post-anesthesia care and early labor, 1:3 for emergency department, pediatrics, step-down and telemetry, newborn and intermediate care nursery, 1:4 for medical-surgical and acute care psychiatric, 1:5 for rehabilitation and subacute units, and 1:6 for well baby units. Nursing homes would be required to provide 0.75 hours of RN care, 1.3 hours of LPN care, and 2.8 hours of CNA care to each resident per 24-hour day, 7 days a week. Since the care hours do not need to be given continuously, there is some room for flexibility for nurse scheduling.

The proposed legislation does have one improvement over previous proposals. Most previous proposals dealt with average nurse:patient ratios. The current proposal sets the ratios based upon the maximum number of patients assigned to any licensed nurse at all times **during a shift** rather than an average. Hospitals would be prohibited from exceeding these ratios and assigning more patients to each nurse. Hospitals could assign fewer patients to each RN, as needed, based on patient acuity and necessary level of nursing care. Importantly, the proposal would require that nurses assigned to each unit have demonstrated competence in that specific clinical area and receive an orientation for that clinical practice. Assistive personnel would not count toward the RN-to-patient ratios.

The New York State Department of Health (NYSDOH) just released a report on nursing staffing issues that it had been mandated to study. The report does not provide support for the proposed legislative mandate for specific nurse:patient ratios. Its rationale is based primarily on 3 points:

- The evidence base is mixed when it comes to demonstrating that mandated nurse staffing levels improve quality and patient safety. It notes that in California, which is currently the only state with such a mandate, there was no correlation with patient outcomes.
- The cost of meeting the mandate would be prohibitive. It cites a Cornell University study that estimates filling the required workforce need would cost an additional \$1.8 to \$2.4 billion dollars for hospitals and between \$1.9 and \$2.3 billion dollars for nursing homes. This reflects an increase in nurse wage costs of between 40 and 53 percent for hospitals, and between 79 and 96 percent for nursing homes.
- There is already a nursing shortage that will persist through at least the next decade.

NYSDOH says that, instead of a minimum staffing mandate, there is “a need for a comprehensive approach to ensure that New York State has a highly trained, skilled nursing workforce that will continue to meet the needs of patients and residents in a safe work environment”. It suggests a workforce development approach should include strategies to ensure:

- nursing continues to be an attractive career;
- enough capacity exists to educate and train the workforce of the future;
- nurses have training opportunities to advance their careers;
- programs exist to support work-life balance for nurses;
- a safe work environment that minimizes the stressors that nurses experience;
- New York State has the necessary data to conduct nurse workforce research that informs future workforce planning; and
- State workforce policy provides flexibility to allow providers to align workforce capacity with patient and resident needs in a dynamic, continually evolving delivery system.

Those of us who have spent most of our professional careers in hospitals recognize the impact that nursing understaffing has on patient safety and patient outcomes, in addition to the negative impact it has not only on nursing morale but also on all healthcare workers’ morale and on patient satisfaction. But the issue is much more complex than simple nurse:patient ratios.

We’ve often cited the work of Linda Aiken and colleagues, who have demonstrated that patient outcomes are better with stronger nurse:patient ratios and higher educational levels of nursing staffing. They found that each additional patient per nurse was associated with a 7% increase in the likelihood of dying within 30 days of admission and a 7% increase in the odds of failure-to-rescue ([Aiken 2002](#)), and a 10% increase in the proportion of nurses holding a bachelor's degree was associated with a 5% decrease in the likelihood of patients dying within 30 days of admission and the odds of failure to rescue for surgical patients ([Aiken 2003](#)).

A more recent study in the UK ([Griffiths 2018](#)) looked at in-hospital mortality in relation to nursing staffing, comparing those with staffing levels above to those below the mean

staffing level. They found the hazard of death was increased by 3% for every day a patient experienced RN staffing below the ward mean. Each additional hour of RN care available over the first 5 days of a patient's stay was associated with 3% reduction in the hazard of death. And, days where admissions per RN exceeded 125% of the ward mean were associated with an increased hazard of death (aHR 1.05). Although low nursing assistant staffing was associated with increases in mortality, high nursing assistant staffing was also associated with increased mortality.

The NYSDOH report seems to rely heavily on a Massachusetts study assessing the impact of a Massachusetts law, which required a 1:1 or 2:1 patient-to-nurse staffing ratio in intensive care units were published ([Law 2018](#)). The researchers compared staffing levels and mortality and certain patient complications between Massachusetts ICU's and out-of-state ICU's. There actually were only modest increases in ICU nurse staffing ratios in Massachusetts (from 1.38 patients per nurse before implementation to 1.28 patients per nurse after) and those staffing increases were largely mirrored in other states that did not have the mandate. Massachusetts ICU nurse staffing regulations were not associated with changes in hospital mortality within Massachusetts or when compared with changes in hospital mortality in other states. Complications and DNR orders also remained on either staffing levels or patient outcomes. We discussed that study in our February 2019 What's New in the Patient Safety World column "[Nurse Staffing, Workload, Missed Care, Mortality](#)" and noted we might have predicted that, because the ICU's are already staffed at high levels, we would not see much change.

The NYSDOH report also focused heavily on the experience of California, which is the only state that has already mandated minimum nursing staffing ratios. NYSDOH notes that numerous studies have explored the impact of the California nurse-to-patient staffing ratios but that results are mixed. Some studies found higher levels of nurse staffing were associated with improved patient outcomes such as lower mortality rates and reduced falls, hospital-acquired infections and pressure ulcers, but other studies showed weaker relationships or no relationship at all, potentially due to differences in methodology,

Yet the NYSDOH report acknowledges "There is a growing body of literature related to the topic of nurse staffing levels and their impact on patient safety and outcomes, quality of care, nurse and patient satisfaction, and overall cost of care. Research in this area is important because of concerns including 1) poorer outcomes mean increased costs, 2) poorer nurse satisfaction and retention result in higher turnover, leading to increased costs for recruitment and retention, and 3) providers with higher nurse staffing ratios have a lower chance of being penalized for medical errors and adverse patient events than providers with lower staffing levels."

We fully support legislation that improves nursing staffing. But the issue is more complex than simple nurse:patient ratios. Those ratios do not take into account actual nurse **workload** nor do they take into account the fatigue factor that may accompany long work shifts or forced overtime. One factor that comes into play in those conditions is the concept of "missed nursing care" or "care left undone" (see our Patient Safety Tips of the Week for November 26, 2013 "[Missed Care: New Opportunities?](#)" and May 9, 2017

[“Missed Nursing Care and Mortality Risk”](#)). We discussed the issue of nursing workload in detail in our Patient Safety Tips of the Week for March 6, 2018 [“Nurse Workload and Mortality”](#) and May 29, 2018 [“More on Nursing Workload and Patient Safety”](#). In those columns we discussed the issue of how to best measure workload and match nursing staffing levels to that workload.

The NYSDOH report does acknowledge that reductions in non-licensed staff (aides/techs in hospitals, administrative staff/unit secretaries, therapists, etc.) may inadvertently increase nurse workloads with tasks that formerly were delegated. That is a point we frequently make in our columns on the “weekend effect”. But reduction in those other jobs has already impacted nursing workload beyond the weekend.

Another factor not noted in the NYSDOH report is the impact of the electronic medical record (EMR). Studies on the time efficiency of the EMR for nurses have had mixed results. Many show improved time efficiency, though a few show reduced time efficiency. But these studies have primarily focused on documentation time. They don’t take into account any additional indirect workload on nurses dealing with other problems created by the EMR. Nurses often have to deal with problems physicians or other healthcare professionals are having with the EMR and that does not show up in studies on nurse time efficiency related to the EMR.

The NYSDOH report also notes that the use of agency nurses to meet nurse:patient ratios is potentially problematic. It notes such could potentially have consequences for quality of care since relationships may not be built between agency nurses and permanent staff and patients. However, as noted above, the legislative proposal would require that nurses assigned to each unit have demonstrated competence in that specific clinical area and receive an orientation for that clinical practice. So you would not be able to simply plug in an agency nurse to meet a mandated ratio.

One of our other concerns is that one of the unintended consequences of mandated minimum nursing staffing ratios will be forcing nurses to work overtime. While many states, New York included, have banned “mandatory” overtime, that simply means a nurse cannot be forced to work beyond his/her scheduled shift. But often unwanted overtime is not “mandated” but more subtle pressures can be put to bear on the nurse to do that overtime (eg. “We really need you”).

Regarding level of nursing staffing, it should be noted that New York State enacted the “BSN in 10” law, which went into effect this past June. It requires that nurses obtain a baccalaureate degree or higher in nursing (a Bachelor of Science in Nursing [BSN], a Master of Science in Nursing [MSN], or a doctoral level degree) within ten years of receiving their initial RN license, or risk having their license suspended. Nurses currently practicing, as well as those currently enrolled in a nursing program at the time of enactment, are not subject to the requirement. The BSN in 10 law is laudable. However, we wonder what impact it is likely to have on the likely worsening shortage of nursing personnel in the next decade.

And as the NYSDOH report was being prepared, **COVID-19** hit. NYSDOH did include an “update” on COVID-19 in its report and a “snapshot” of its impact on peak nursing needs. However, it appears primarily focused on what the cost implications would be if the proposed nurse:patient staffing ratios were in place. Lasatar et al. ([Lasatar 2020](#)), in an article titled “Chronic hospital nurse understaffing meets COVID-19” were actually collecting survey data in New York and Illinois (the other state apparently considering mandating minimum nursing staffing levels) just **prior to** the first COVID-19 wave. They found that over half the nurses in both states experienced high burnout. Half gave their hospitals unfavorable safety grades and two-thirds would not definitely recommend their hospitals. One-third of patients rated their hospitals less than excellent and would not definitely recommend it to others. After adjusting for confounding factors, each additional patient per nurse increased odds of nurses and per cent of patients giving unfavorable reports; ORs ranged from 1.15 to 1.52 for nurses on medical-surgical units and from 1.32 to 3.63 for nurses on intensive care units. Their conclusion was that hospital nurses were already burned out and already working in understaffed conditions in the weeks prior to the first wave of COVID-19.

A Royal College of Nursing survey in the UK during the COVID-19 pandemic received almost 42,000 responses and highlighted that nursing staff continued to go above and beyond, while working under the pressures of staff shortages, longer hours and often working above their pay grade ([Ford 2020](#)). We don’t doubt that the same likely occurred in the US.

The current COVID-19 pandemic certainly has impacted the issue, but in two separate ways ([AP 2020](#)). On the one hand, the pandemic accentuated the shortage of nursing staff and lack of flexibility in staffing. On the other hand, COVID-19 has had a devastating impact on hospital finances, making now a very inopportune time to be considering any mandate that would substantially increase hospital expenses. The latter fact will likely doom passage of the proposed legislation in the near future.

NYSDOH did have discussion with multiple stakeholders, both those supporting the legislation (such as nurses’ organizations) and those opposing it (such as hospitals). The same two sides did battle in Massachusetts when it was considering a similar proposal (see our October 2018 What’s New in the Patient Safety World column “[Nurse Staffing Legislative Efforts](#)”).

Interestingly, both the Cornell report and the NYSDOH report focus on the additional costs that would be incurred if the proposed legislation passed. We did not see in either report any estimation of potential costs saved by improvements in care provided. Admittedly, those cost savings are difficult to quantitate. But neither even acknowledged that there would be savings to offset increased expenses.

Looks to us that “the deck is stacked” at least for the time being. With hospitals bleeding due to the COVID-19 pandemic, it is highly unlikely that we’ll see much needed reform on nursing staffing. But this issue won’t die and we’ll be discussing it again in future years.

Some of our other columns on nursing workload and missed nursing care/care left undone:

November 26, 2013	“Missed Care: New Opportunities?”
May 9, 2017	“Missed Nursing Care and Mortality Risk”
March 6, 2018	“Nurse Workload and Mortality”
May 29, 2018	“More on Nursing Workload and Patient Safety”
October 2018	“Nurse Staffing Legislative Efforts”
February 2019	“Nurse Staffing, Workload, Missed Care, Mortality”
July 2019	“HAI’s and Nurse Staffing”

Our previous columns on the 12-hour nursing shift:

November 9, 2010	“12-Hour Nursing Shifts and Patient Safety”
February 2011	“Update on 12-hour Nursing Shifts”
November 13, 2012	“The 12-Hour Nursing Shift: More Downsides”
July 29, 2014	“The 12-Hour Nursing Shift: Debate Continues”
October 2014	“Another Rap on the 12-Hour Nursing Shift”
December 2, 2014	“ANA Position Statement on Nurse Fatigue”
September 29, 2015	“More on the 12-Hour Nursing Shift”
July 11, 2017	“The 12-Hour Shift Takes More Hits”
May 29, 2018	“More on Nursing Workload and Patient Safety”
September 4, 2018	“The 12-Hour Nursing Shift: Another Nail in the Coffin”

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