

Community Health Systems

Ohio and West Virginia Patient Care Report

This patient care report was compiled entirely from documents written by registered nurses employed in direct patient care at CHS Hospitals: Affinity Medical Center in Massillon, Ohio, Bluefield Regional Medical Center in Bluefield, West Virginia and Greenbrier Valley Medical Center in Ronceverte, West Virginia. All incidents reported herein are believed to be not only accurate in their particulars but also representative of common or typical assignments. All reporting is consistent with HIPAA guidelines



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COMMUNITY HEALTH SYSTEMS

Ohio and West Virginia Patient Care Report

KEY FINDINGS:

- Inadequate staffing levels are routinely present, placing patients at risk of harm on a daily basis
- Patients who are most vulnerable, requiring the most nursing care, are at the greatest risk of harm
- Staffing patterns are in violation of nationally recognized standards for safe nursing care
- Nurses are forced to work in conditions that do not allow them to practice in accordance with their State Nursing Practice Acts
- Nurses are harassed, bullied, intimidated and threatened when reporting unsafe patient care conditions

ABOUT THIS REPORT

Community Health Systems (CHS) nurses at Affinity Medical Center, Bluefield Regional Medical Center, and Greenbrier Valley Medical Center should be commended for their commitment to the safety of their patients, for taking seriously the legal duties placed upon them by their State Nursing Practice Acts, and for adhering to professional ethical standards requiring them to advocate for their patients. As a condition of their licensure, RNs must object to any assignment that the nurse determines to be unsafe or potentially unsafe. It is the legal and ethical duty of registered nurses to ensure safe, competent, therapeutic and effective care for every patient at all times. This patient care report is a representative summary of unsafe staffing reports submitted by CHS nurses over the last 9 months, as well as evidence of unsafe patient care conditions as identified by the Centers for Medicare and Medicaid Services (CMS) and individual hospitals' self-reported quality measures.

The unsafe staffing report form, or Assignment Despite Objection (ADO) form, is a tool for nurses to identify and track professional practice issues within the hospital when a nurse objects to an unsafe, or potentially unsafe, patient care assignment. ADO forms are signed by the nurse or nurses who file them and shared with the supervisor on duty. CHS management has refused to accept these forms in all facilities. In every case, however, nurses have communicated their objections verbally. Under protest, registered nurses then attempted to carry out their assignments under adverse circumstances.

CHS nurses have been struggling to resolve unsafe working conditions, particularly dangerous staffing levels, which have resulted in the filing of nearly 200 ADO reports from October 2012 to July 2013. (Appendix A) These reports specify instances where patient safety was compromised. However, not every incident of short staffing or unsafe patient care is documented. Nurses fear retaliation and reprisal by supervisors or administrators for reporting unsafe conditions. In addition, some reports have been suppressed to protect patient privacy as required by HIPPA. Therefore, the number of actual unsafe situations is significantly higher than reported. Nevertheless, the number of unsafe staffing reports continues to grow, and as a result, the quality and safety of patient care in all three CHS facilities remains severely compromised.

Many RNs in these hospitals are life-long residents of communities in which CHS hospitals provide services; some have worked at their hospital for their entire career. These RNs have noticed a dramatic decrease in standards since CHS took ownership of their hospital. The emphasis has changed from providing quality patient care to "doing more with less." It is evident after reviewing the reports from nurses that the rationing of nursing care has had a detrimental effect on patient care and safety.

ABOUT COMMUNITY HEALTH SYSTEMS

Community Health Systems (CHS) is a national, publicly traded for-profit hospital corporation. “The organization's affiliates own, operate or lease 135 hospitals in 29 States, with an aggregate of approximately 20,000 licensed beds. In over 55 percent of the markets served, CHS-affiliated hospitals are the sole provider of healthcare services.”¹ CHS is the second largest for-profit hospital chain in the United States, and one of the wealthiest. Over the past five years, CHS reported over \$1.5 Billion in profits to the Securities Exchange Commission.

CHS has carefully crafted a marketing scheme that masks its corporate identity from the communities where they do business. In most cases, the corporation takes over a community hospital that has an excellent reputation for quality care but keeps its corporate name carefully hidden. Shortly after acquisition of a community hospital, CHS’s first step is often to eliminate unprofitable services that are needed by the community, such as women’s health, pediatric care, and labor and delivery units. The CHS business model eliminates needed healthcare resources from the community. In addition, CHS is under investigation for fraudulently draining monetary resources to enhance corporate profits.

Medicare Fraud

CHS is the subject of a Department of Justice (DOJ) investigation into allegations of Medicare fraud. A brief history:

2005: Whistleblower Robert Baker files lawsuit against CHS alleging improper donations to the state leading to inappropriate federal Medicare funds

2009: The DOJ joins lawsuit against CHS alleging \$47.6 Million Medicare fraud in New Mexico

2009: Former employee at CHS affiliated Lutheran Hospital in Indiana files lawsuit alleging millions in Medicare fraud

2011: The DOJ consolidates multiple probes of illegal practices by CHS into one Federal investigation. CHS is alleged to have admitted patients who did not meet the Medicare standards of admission

2013: The DOJ subpoenas two high ranking CHS officials as part of its ongoing investigation

CHS Mission Statement and Goals

Each CHS hospital has prominently displayed mission statements and goals in its marketing materials. By contrast, CHS corporate materials tout its return on investment and valuable stock price. CHS owes a duty to Wall Street but RNs owe a professional duty to their patients. Nowhere does CHS state that its objective is to provide safe care to patients. RNs at all three facilities support the mission statement of their respective hospitals and seek to hold the company accountable to these mission statements. Mission statements as described on each hospital's website as follows:

Bluefield Regional Medical Center RNs support the hospital vision to “support the rights of their patients by treating their community with respect, compassion and dignity, while providing quality service in the most effective, efficient and safest way possible.”

Greenbrier Valley Medical Center RNs support the mission to “create and maintain a culture of service excellence that nurtures people through empathy, compassion, education, and quality improvement.”

Affinity Medical Center registered nurses support the mission to “provide high quality, personalized, compassionate health care.”

PATIENT SAFETY CONCERNS

Nurses are ever present with their patients. In fact, the primary reason that patients are admitted to hospitals is to receive nursing care. When RNs do not have enough time to care for patients, patients are put at unnecessary risk of adverse outcomes. One such risk is the so-called “failure to rescue.” “Because nurses are often the first to detect early signs of possible complications, their vigilance makes timely rescue responses more likely.”²

RNs at all three CHS facilities have serious concerns for the safety of their patients. In a survey conducted by the National Nurses Organizing Committee (NNOC) in September 2012, 92% of RNs cited unsafe staffing as the

Affinity Medical Center:

Pressure ulcer (bed sore) rate is 2x the Ohio rate⁹
MSSA blood stream infections are over 3x the national average

Greenbrier Valley Medical Center:

Falls and injuries are over 3x the national average

Bluefield Regional Medical Center:

A CMS investigation found the hospital in serious violation for failing to provide RN supervision of nursing care¹⁶

number one patient safety concern in their facilities. In some of the facilities, there is no plan in place to ensure that a safe amount of skilled nursing care is available to patients at all times. In others, there is a staffing plan and staffing grids, but they are not followed. Higher nurse workloads are associated with more patient deaths, complications, and medical errors.³

When RNs are unable to follow the laws guiding nursing practice, it not only jeopardizes patient safety but also each nurse's state license. Both the Ohio and West Virginia Nurse Practice Acts (NPA) clearly state the standards of nursing care. The Ohio NPA explains that "[b]ased on the 'health status assessment' it is the RN who determines the nursing care to be provided" (4). Thus, in CHS hospitals nurses are accountable for the care they provide but are powerless to influence the decisions that surround nursing practice. None of these three CHS facilities takes into consideration the individual needs of the patient when deciding the amount of nursing care that they will receive, as is required by both the West Virginia and Ohio Nurse Practice Acts.

In addition to inadequate RN staffing, nurses report that there is inadequate support staff, such as nursing assistants, unit secretaries, transporters, and environmental service employees. This creates additional strain on the quality of nursing care that patients receive because the RN then becomes responsible for these additional duties. For example, in one department it is now the responsibility of the RN to routinely dust cabinets and clean other areas of the unit. This practice is reminiscent of early 1900's hospital culture when nurses were treated like domestic servants rather than skilled professionals.

Nurses have repeatedly brought these concerns to the attention of administration and have been repeatedly ignored. In many cases, RNs face hostility when they bring these concerns to the attention of CHS management. Such hostility is misplaced; nurses seeking to fulfill their professional duties are merely advocating for quality care for their patients.

The outcome of dangerously high patient loads includes delays in nursing assessment, delays in the administration of tests and medications, significant changes in patients' hemodynamic status which go unnoticed and uncorrected, poor patient outcomes, patient falls due to lack of available assistance with ambulation, and increased infection risks. In addition to safety concerns, basic human dignity is being neglected. For instance, patients are left in soiled beds until staff can address these basic human needs—sometimes hours after they should have been taken care of.

The ADOs submitted by RNs at these CHS facilities document attempted suicide, several falls, and patients removing their breathing tubes and IVs. All of these incidents should have been prevented if CHS had responded to nurses' safety

concerns and provided adequate staffing. There is no question that patients are being harmed by CHS' refusal to act. This is evident in the ADOs but there are indications of substandard care in official data from the hospitals as well.

RN understaffing is dangerous and unacceptable. It contributes to hospital morbidity, mortality, and medical errors. It is outrageous from a patient safety standpoint, and drives up health care costs. Most importantly, adverse patient outcomes take a significant emotional and economic toll on those who are harmed. Research studies show that poor staffing contributes to millions of preventable complications for patients and causes tens of thousands of preventable deaths each year.

CHS in these three hospitals has willfully engaged in practices that place patients at risk of harm with the result of inflating corporate profits. Its practices violate National and State standards of nursing practice. When these concerns have been brought to the attention of CHS administrators by registered nurses, they have been dismissed, ignored, and on at least one occasion threatened with physical harm. Based upon review of ADOs forms it is clear that the most vulnerable patients, those who require the most nursing care, are at greatest risk.

CMS and Hospital Quality Measures Validate RNs Concerns

Each year, CMS and the Ohio Department of Health collect outcome measures from hospitals. Some of this data is sensitive to the adequacy of RN staffing levels, such as, rates of pressure ulcers, patient falls, and blood stream infections. All three CHS hospitals show poor results in one or more of these measured areas. These Federal and State measures validate RN concerns as set forth in the ADOs. Indeed, unsafe practices reported by direct-care RNs (and validated by Federal and State data) make it impossible to "safeguard the health and safety of patients and others."⁵

Falls

At least 5 of the submitted ADOs document patient falls. Falls in the acute care setting should never occur and are considered a medical error. ⁶GVMC has a fall rate that is over 3 times the national average. Conditions that increase the risk of falls exist at all of the hospitals. Falls can cause serious harm and even death to patients. Injuries are reported to occur in approximately 6 to 44 percent of acute inpatient falls. High fall rates are directly correlated with a lack of adequate number of nurses and support staff. Compared to patients whose nurse had three or fewer patients, the likelihood of falling was 3 times higher for patients whose nurse had four to six patients. The fall rate is 7 times higher when the nurse had seven or more

patients.⁷ ADO reports from nurses at GVMC document occasions when nurses were made to provide care for as many as 15 patients at one time.

ADO REPORTS:

“Patients are being admitted too quickly, without enough staff to adequately care for them. Unable to carry out physicians orders. No unit secretary. Nurses to put in many pages of orders. Nursing care not done, treatments not done, assessments not thorough, not monitoring fall risks, 3 patients on bed alarms- **Patient fell.**”

“Nurses on night shift responsible for the care of 15 patients with the assist of 1 LPN. Nurses unable to supervise care delivered by the LPN. “

“Two patients required a sitter to prevent falls and removing needed medical equipment. Only one had a sitter.”

Infections

When nurses have too many patients, proper infection control measures are compromised. All ADO reports document inadequate staffing. Many reports, especially those from critical care areas of the hospitals, specifically document that nurses were unable to perform catheter care, complete central line assessments, and perform dressing changes. When this type of care is compromised patients can develop potentially life-threatening infections. Infections can quickly convert from a local infection to a systemic blood stream infection. “Review of outcomes data for more than 15,000 patients in 51 U.S. hospital ICUs showed that those with higher nurse staffing levels had a lower incidence of infections, such as central line associated bloodstream infections, a common cause of mortality in intensive care settings. The study found that patients cared for in hospitals with higher staffing levels were 68 percent less likely to acquire an infection”⁸

Affinity Medical Center reported MSSA blood stream infections over 3 times the national average.

EXAMPLE FROM AN ACTUAL ADO REPORT:

“Three RNs were each responsible for 3 patients requiring intensive care. Turns, baths, tracheotomy care, oral care, and catheter care could not be done. Leaving patients at risk for pressure ulcers and serious infections”

Pressure Ulcers

Affinity Medical Center has a severe bed sore or pressure ulcer rate that is 3 times the average rate for Ohio hospitals.⁹

Pressure sores are areas of damaged skin caused by failing to adjust a patient's position. Ulcers commonly form where bones are close to skin, such as ankles, back, elbows, heels, and hips. Patients who are bedridden, use a wheelchair, or are unable to change position are at increased risk of pressure ulcers. Pressure ulcers can cause serious infection, some of which are life-threatening. The ulcer starts as reddened skin that gets progressively worse. Healthcare professionals have identified four stages of bed sores with stage three and four being the most severe. Ulcers can be healed before becoming more serious if detected promptly and treated at an early stage. Catching the sore early is vital.

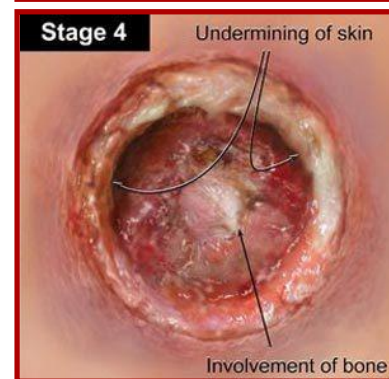
RNs assess each patient for risk factors that can cause a pressure ulcer, develop a plan of care individually tailored to each patient and supervise the care delivered to prevent the complication. Some interventions that prevent pressure ulcers include: changing the position of the patient every 2 hours, keeping the skin clean and dry and proper nutrition and hydration. The prevalence of Stage 3 and Stage 4 pressure ulcers is a strong indicator of insufficient RN staffing.

Supervision of Nursing Care

The Centers for Medicaid Services (CMS) conducted an investigation at Bluefield Regional Medical Center in March 2013 and found that the hospital was in violation of their Conditions of Participation. CMS concluded the following:

*“Based on the review of documents, medical records and staff interview, it was determined that the hospital failed to ensure the medical staff followed the Bylaws, Rules and Regulations in 9 of 10 medical records reviewed for a qualified Registered Nurse (RN) to perform the medical screening examination in patients presenting to the Obstetrical Department (OB) from the Emergency Department (ED). **This has the potential to negatively affect all obstetrical patients by the possibility of an unqualified nurse making the wrong assessment and the patient being discharged home via telephone order of the physician**”*

Likewise, numerous ADO reports from the facilities describe conditions where no experienced or qualified staff was available to care for patients in the OB unit.



EXAMPLE FROM AN ACTUAL ADO REPORT:

“I was given an assignment where I did not have orientation to the unit, unable to completely perform my assessment. Most experienced OB staff were pulled leaving lesser experienced staff to care for emergency patients”

CHS RESPONDS WITH HOSTILITY

When RNs report their concerns to hospital administration, they are met with responses ranging from blatant disregard to overt hostility. This pattern has been uniform and systematic throughout these three CHS facilities demonstrating an institutional practice of ignoring threats to patient safety.

Some responses that nurses have documented on ADO forms when reporting unsafe conditions include:

“okay, big deal”

“deal with it”

“do you want me to pull a nurse out of my a**”

“if you weren’t so lazy you could do it”

“if there was less attitude you might get the staff you need”

“I don’t care and I don't take ADO's”

“I feel like slapping these on your forehead so you can walk around and look how stupid you look with them.”

On at least one occasion a supervisor threatened physical harm to nurses in response to an ADO form documenting patient safety concerns. The supervisor stated: “I feel like slapping these on your forehead so you can walk around and look how stupid you look with them.” Much to nurses’ dismay, *this supervisor was recently promoted.*

These responses are clearly unprofessional and disrespectful but in a healthcare setting they can be **deadly**. According to the Joint Commission, “intimidating and disruptive behaviors can foster medical errors, contribute to poor patient satisfaction and to preventable adverse outcomes, increase the cost of care, and cause qualified clinicians, administrators and managers to seek new positions in more professional environments. Safety and quality of patient care is dependent on teamwork, communication, and a collaborative work environment. To assure quality and to promote a culture of safety, health care organizations must address the problem of behaviors that threaten the performance of the health care team.”⁶

CHS promotes a culture of hostility rather than adopting a “zero-tolerance” for such disruptive behavior as is recommended by researchers and patient safety advocates. Every nurse is entitled to a workplace that is free from hostility. Every patient has a right to a care environment that promotes a culture of safety.

SOLUTIONS

Nurses at each of these facilities seek interventions that would remedy the dangerous care conditions and hostile work environment. In the fall of 2012 nurses from all three facilities voted for representation by National Nurses Organizing Committee (NNOC), an affiliate of National Nurses United (NNU), so that they may collectively bargain with CHS. The pro-union vote was driven almost entirely by patient safety concern, rather than economic considerations.

It is the desire of the RNs to form Professional Practice Committees that will examine ADO reports and make recommendations to improve patient care in their hospitals. Further, RNs seek minimum mandated ratios that vary by patient care unit and patient need as determined by the individual professional judgment of the RN. These recommendations are consistent with the Ohio and West Virginia Nursing Practice Acts.

ADDITIONAL DOCUMENTED CONCERNS BY UNIT

Critical Care

Critically ill patients are highly vulnerable, unstable and complex, thereby requiring intense and vigilant nursing care. Critical care nursing is that specialty within nursing that deals specifically with human responses to life-threatening problems.

The care of critically ill patients is intensive, critical and complicated, often with extreme variation from routine care. In many cases, RNs are literally controlling breathing, heart rate and vital functions of their patients. Patients require vigilant ongoing assessment and complex decision making with the clinical judgment skills of an expert RN. It is essential for critical care units to have at least one competent critical care RN for 1:1 nursing available at all times.

Based upon the review of ADOs it is clear that CHS staffs its critical care units in these three hospitals as though patients were stable. Managers frequently fail to plan for emergency intervention and admissions and then scramble to find help that is routinely unavailable, thereby leaving needy patients with inadequate care when they need it most.

The American Association of Critical Care Nurses (AACN) assumes that staffing for all critical care units is two or fewer patients per nurse. At CHS hospitals it is not uncommon for RNs to be assigned 3 and even 4 patients at one time. (Appendix B)

At CHS facilities, critical care RNs are often required to respond to emergencies in other units. When this happens the RN must leave critically ill patients in the care of another RN who may then have to care for as many as 5-6 patients at one time. It is well documented that understaffing in the ICU can cause serious harm to patients. For example, “[c]utting the number of patients per RN per shift in intensive care units from 3.3 patients to fewer than 1.6 reduces the odds of hospital-acquired sepsis.”¹⁰ Additionally, “adding just one full-time RN on staff per day resulted in 9 percent fewer hospital-related deaths in intensive care units.”¹¹

EXAMPLES FROM ACTUAL ADO REPORTS:

“One RN was assigned to three ICU patients. Two patients required mechanical ventilation. The 3rd patient was newly admitted requiring 1:1 care with CVHD¹ Patients were not turned and repositioned as often as needed. Medications were given late. A patient was not bathed.”

“An RN was assigned to three patients in the ICU. One patient required 1:1 nursing with invasive hemodynamic monitoring titrated vasoactive intravenous medication, and an insulin IV drip, meeting the criteria of the AACN for 1:1 staffing. “

“In ICU two suicidal patients did not have 1:1 care. A psychiatric critically ill patient left the hospital and ***police had to be called***. There was no one to relieve for breaks so RNs did not get to eat a meal or rest to prevent fatigue, accidents, and errors.”

Emergency Care

The website for Bluefield Regional Medical Center boasts: “In an emergency seconds count. So count on us.” However, understaffing in the Emergency Department (ED) and other unsafe practices severely compromise patient care at Bluefield as well as Greenbrier and Affinity. For example, RNs reported shifts with no triage RN. Triage nurses are the first line of assessment in an emergency room. These registered nurses use extensive training to determine the severity of illness or injuries, manage the order of patient care, and anticipate the needs of the

¹ Continuous Veno-Venous Hemofiltration (CVHD) is a highly complex form of hemodialysis and requires the undivided attention of a single RN.

emergency room. In addition, RNs reported that the acuity of 2 patients required 1:1 RN care and the patients did not receive it. In another instance, a patient who needed, but did not receive, 1:1 monitoring *attempted suicide*. Patients, visitors, and hospital staff are at risk of injury or death when staffing is insufficient to keep patients and others safe.

Radiology has 1 person on weekends requiring ER staff to provide staffing causing staff to leave patients unattended. Patients left alone had life-threatening diagnoses including: potential trauma, rule out MI, and rule out stroke.”

Labor & Delivery

Registered nurses are critical to providing safe nursing care to mothers and babies.

Laboring women need the support of a skilled, empathic, and intuitive nurse at the bedside who is coaching them, reassuring them, and most importantly, monitoring the health of the mother and the unborn baby. A woman who has been having a slow labor may suddenly make rapid progress, or subtle signs of fetal distress can arise. The nurse must be present and available to perform interventions as needed for the health and safety of the mother and her baby.

Complications surrounding labor and delivery can have devastating effects on both mothers and infants. Fetal distress, a sign of hypoxia, must be recognized and treated with the utmost urgency or permanent, irreversible brain damage can occur.

CHS nurses report that a lack of experienced RNs in the Labor & Delivery, Postpartum, and newborn nursery care areas of their hospitals poses a threat to patient safety. Many ADOs report that there was no RN with any amount of obstetric experience available to assess patients. Many times, the OB unit was staffed solely by an inexperienced RN who must oversee care with no one available to consult in an emergency.

When an obstetrical emergency occurs, the intervention of a skilled, experienced RN translates into lives saved and permanent disability prevented. Indeed, "no age group is more susceptible to asphyxia or is as frequently in need of resuscitation than the neonate."¹² Several studies have found a strong relationship between high

The hospital shall establish specific policies for the training and competency of nursing personnel from other areas of the hospital working in the obstetric and neonatal care areas, or nursing personnel from the obstetric and neonatal care areas working on other units of the hospital. **From Title 64 Legislative Rule, West Virginia Division of Health Series 12, Hospital Licensure**

cesarean section rates and a lack of ample, experienced OB RNs. According to one such study, the number of direct-care RNs and the experience level of RN staff play a vital role in preventing unnecessary Cesarean sections. (13)

ADOs routinely document severely inadequate staffing. Staffing levels not only violate the Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN) guidelines for staffing (Appendix C), but also defy common sense and reason. For example, RNs reported that only 3 RNs were provided for 11 women in labor and 12 newborns in the nursery. There were so few staff in the nursery that office workers were used to hold infants. According to national standards, staffing for patients in labor should be two or fewer patients per RN. In this case, 3 RNs were expected to provide the nursing care typically provided by as many as 6-9 RNs.

EXAMPLE FROM AN ACTUAL ADO REPORT:

7 patients left unattended for 40 minutes due to need for additional staff in L&D during delivery

An RN went to assist a Cesarean section. The infant warmer had no oxygen, there was no flow meter and the O2 tank was empty, suction tubing was not long enough to reach the warmer and there was no time to fix the problem prior to delivery. The RN informed circulator. Consequences of lack of needed equipment were potentially devastating.

Acute Medical /Telemetry/Step-down

With the changing healthcare environment, the acuity of patients admitted to hospitals steadily increased and caused an increase in the demand for critical care beds. With the increased demand and decreased availability of critical care beds, patients were often transferred from critical care units while still requiring an increased level of nursing care and vigilance. Patients admitted to critical care units five to ten years ago are now routinely admitted to telemetry units.

These units are part of the continuum of critical care and named Telemetry Units, Progressive Care units, Intermediate Care Units, Direct Observation Units, Step-down Units, and Transitional Care Units.

The patients cared for on these units are moderately stable with less complexity, require moderate resources and require intermittent nursing vigilance or are stable with a high potential for becoming unstable and require an increased intensity of care. The patients are classified as having a decreased risk of a life-threatening event, increased stability, and an increased ability to participate in their care. (14)

National Nurses United defines these units as “Telemetry Units” and “Step-Down Units”:

"Telemetry unit" is defined as a unit organized, operated, and maintained to provide care for and continuous cardiac monitoring of patients in a stable condition, having or suspected of having a cardiac condition or a disease requiring the electronic monitoring, recording, retrieval, and display of cardiac electrical signals.

ADO REPORT:

The five registered nurses reported that staffing was insufficient to provide care for the 44 patients on the unit. The nursing supervisor agreed. Support staff was minimal, just one aide for the entire floor. Several patients were confused and attempting to get up. Patients could have fallen. Patients needed blood transfusions. Potential for med errors was high due to late med pass and constant interruptions.

Step Down

A "step down unit" is defined as a unit which is organized, operated, and maintained to provide for the monitoring and care of patients with moderate or potentially severe physiologic instability requiring technical support but not necessarily artificial life support. Step-down patients are those patients who require less care than intensive care, but more than that which is available from medical/surgical care. National staffing standards for step-down patients require three or fewer patients per RN.

ADO REPORT:

RNs reported insufficient staffing and RNs with clinical competency for ICU patients. Needed equipment and supplies were not provided. Two registered nurses were provided to care for two critically ill patients who should have been in ICU and four telemetry patients. There were no monitors in patient rooms. It is essential for the competent critical care RN to see the patient's cardiac rhythm and, for some, patient's arterial line and pulmonary artery catheter wave forms.

Mental Health

Patient safety and nurse safety are significant concerns when caring for this patient population. These patients often have numerous medical and psychiatric diagnoses that can leave them confused, agitated, combative, and prone to wandering. Frequently mental health patients require “line of sight” monitoring. According to

the American Psychiatric Nurses Association (APNA), “Line of Sight” can be ordered for 1:1 patients who are particularly agitated or for those who do not need 1:1 but are not reliable enough for hourly checks. These patients need to be observed at all times.

When patients are confused and agitated they may strike out at health care providers. **On at least 3 occasions RNs reported that they had been punched or strangled by agitated and confused patients.** Recently, RNs reported that 3 RNs and 1 social worker suffered soft tissue injuries and rib fractures after battery by a confused, agitated patient. These injuries were a direct result of inadequate staff. Often, these types of assaults on staff can be prevented with closer monitoring and behavioral interventions. When there are too few nurses and support staff, patients are more likely to act out. Intervention with distraction activities is essential before patients get out of control.

ADO REPORT:

The two RNs responsible for the eight patients on the unit reported that due to the acuity of most patients staffing was insufficient to provide for the safety of patients and staff. Four patients that required “line of sight” observation could not be observed when a patient needed to go to the bathroom. Four patients required two nursing personnel to assist with getting out of bed, to the bathroom, or for bathing and positioning. Patients were not turned if two persons were required. Nurses were unable to use the restroom or take meal breaks without risking harm to their patients.

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APPENDIX

Additional ADO Reports

Department	Report	
Emergency	In 2012 RNs reported shifts with no triage RN. Triage nurses are the first line of assessment in an emergency room. These registered nurses use extensive training to determine the severity of illness or injuries, manage the order of patient care and anticipate the needs of the emergency room.	A dedicated triage registered nurse must be immediately available to perform triage.
	RNs reported that on weekends there is only one person staffing radiology. When an ER patient needs an X-ray or other test in radiology ER staff must provide staffing for the radiology department. This has caused ER patients to be unattended. There is a person on call, but this takes 30 minutes.	There is a person on call, but this takes 30 minutes. Some patients such as those having a stroke need a test STAT. 30 minutes delay can mean preventable death or disability
	RNs reported a night shift stating that in their professional judgment three RNs are insufficient. There was no triage nurse, no housekeeping, and no transport. RNs had to clean rooms between patients and leave the unit to transport patients	
Medical Surgical/Medical Telemetry	RNs reported being unable to meet individual needs of patients, no breaks to prevent fatigue, accidents, and errors. Five RNs were provided for 27 patients. One of the RNs was assigned as "tele tech" to constantly observe each cardiac rhythm and ensure that any abnormal or life threatening	RNs in most departments work 12 hour shifts. Nearly all ADOs report that nurses are unable to take meal, rest and bathroom breaks. RN fatigue contributes significantly to medical errors.

	arrhythmia is treated.	
	An RN reported that three nurses for 24 patients was insufficient to meet individual patient needs or to meet the teaching needs of assigned patients. The nurse was unable to perform nursing assessments in a safe manner. Many of the patients were high acuity.	More than four patients per nurse increases the risk of falls, failure to rescue and untreated pain
	3 RNs for 24 patients - most telemetry patients, staff to patient ratio too high to allow safe and effective care	
	One RN was assigned to six patients. That nurse reported not having time to perform effective ongoing assessments to prevent "Failure to Rescue". There was inadequate equipment to even take blood pressures as often as needed. The RN needed to administer blood to one patient and to check the blood sugar and treat the result every hour. A different patient suffered cardiac disease with open heart surgery planned. The RN did not have time to do the surgical preparations.	When the nurse was with a patient five other patients were not getting care.
	Nurses reported there were no supplies or immediate respiratory support available for a patient returning from surgery with a new tracheostomy. The hospital had no policies or procedures for a patient with these needs on the	This patient should not have been admitted to this unit. The Step-Down unit or ICU would have been appropriate. The assigned RN should have no more than two patients until assessed as stable. Bipap is non-invasive mechanical ventilation.

	<p>Med/tele unit. The patient was also on a Cardizem drip and required a higher level of care. 8 patients were discharged on that shift and 4 new patients were admitted and 1 transferred to the unit.</p>	<p>Admissions, discharges and transfers require a significant amount of the nurses' time. Staffing must be increased to accommodate for this to ensure safe transitions in care.</p>
Critical Care	<p>Only 4 nurses were provided for 10 patients. Received 2 admits, 1 post-op, 1 rapid response/code blue. 10 total patients. 2 RN tripled, New rapid response needed intubated and 3 other RNs had to care for 9 patients. One RN was still in orientation. Assessments were delayed, Patients were not turned, transfers delayed, hourly rounding not done, no baths done, oral care delayed, and catheter care was not done.</p>	
	<p>Two patients identified as suicidal required 1:1 care. They did not receive it. This could have been tragic. "We were unable to give adequate care for the patients. Only two nurses for seven patients"</p>	
	<p>An RN was assigned 3 ICU patients, one patient coded and later went into asystole three times, one pt status changed to DNR and life banc issues that lasted all day. Pt needed to be escorted to MRI and CT leaving other pts unsafe.</p>	
	<p>An RN reported that her assignment of three</p>	

	<p>patients was unsafe. A travel RN had been floated to another unit. While the nurse was caring for another patient a patient got up alone and pulled out the IV. The nurse didn't have time to be with a dying patient to provide a dignified death, and help the family. The supervisor said, "One of your patients is a DNR, 2 should get transferred." Implying that the dying patient did not require the nurse's attention.</p>	
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AACN Criteria for 1:1 Nursing Care

Establishing Criteria for 1:1 Staffing Ratios **R. Colette Hartigan, RN, BSN, MBA, CCRN** ***Critical Care Nurse, Vol. 20, No. 2, April 2000***

Stability Level I

Patients with unstable cardiac rhythms that cause hemodynamic compromise and necessitate frequent assessments, pharmacological interventions, and/or mechanical termination of the rhythm and patients who require external cardiac pacing and/or placement of a transvenous pacemaker

Patients who experience hypertensive or hypotensive crisis and require rapid stabilization of blood pressure

Patients with symptomatic cardiac tamponade who require immediate intervention on the unit including drainage and stabilization

Patients who experience inadequate myocardial perfusion who exhibit ongoing symptoms of chest discomfort resulting in decreased cardiac output and severe hemodynamic instability

Patients who develop symptomatic bleeding and require immediate intervention

Patients who experience cardiac arrest and remain severely compromised requiring ventilatory and pharmacological support with continuous adjustments

Patients who exhibit symptoms of extreme dyspnea, acute anxiety, orthopnea, and diffuse pulmonary congestion who are highly complex and vulnerable in the acute phase of their illness

Patients who require insertion of an intracranial pressure monitoring device (ventricular drain or Camino) and demand continuous intracranial pressure monitoring with frequent assessment and interventions

Patients with an acute change in neurological status who require continuous nursing assessment and interventions

Nonventilated patients exhibiting life-threatening airway compromise who require frequent treatments and continuous observation

Patients in metabolic crisis with multisystem compromise who require continuous monitoring, assessment, and interventions

Patients who must leave the critical care area for a procedure or test and require continuous nursing assessment and monitoring for the duration of the test

Highly Complex Level I

Patients assigned to a research protocol who require initiation into the study that necessitates documentation every 15 minutes or more often

Patients who require a diagnostic or therapeutic intervention in conjunction with conscious sedation and recovery

Patients who are potential organ donors who require immediate, extensive preparation and/or management

Patients who are severely compromised and require continuous arteriovenous hemofiltration

Patients who require pressure control ventilation in the acute stage of acute respiratory distress or ventilated patients in the critical stage of acute lung injury with high-PEEP and high oxygen requirements

Vulnerability Level I

Patients whose families require frequent interventions including complex teaching and help resolving ethical concerns; for example, families who require counseling because they are considering terminating life support measures and/or donating organs for transplantation

Patients exhibiting emotional trauma who require intensive care, collaboration, and coordination with other support services, including but not limited to victims of sexual assault

Resiliency Level I

Patients in the acute phase of their illness who exhibit signs of confusion, sensory overload, or psychosis and require continuous assessment and immediate pharmacological interventions

Patients who require continuous intravenous sedation and/or neuromuscular blockade for control of anxiety in the acute phase of their illness and those who exhibit withdrawal symptoms as they are weaned from long-term sedation.

AWHONN Staffing Guidelines

TABLE 2

Summary of Guidelines for Professional Registered Nurse Staffing For Perinatal Units†
 (See the full text for assumptions and conditions that may affect the stated ratios in each instance.)

Nurse-to-Woman or Nurse-to-Baby Ratio	Care Provided
Antepartum	
1 to 2-3	women during nonstress testing
1 to 1	woman presenting for initial obstetric triage
1 to 2-3	women in obstetric triage after initial assessment and in stable condition
1 to 3	women with antepartum complications in stable condition
1 to 1	woman with antepartum complications who is unstable
1 to 1	continuous bedside attendance for woman receiving IV magnesium sulfate for the first hour of administration for preterm labor prophylaxis and no more than 1 additional couplet or woman for a nurse caring for a woman receiving IV magnesium sulfate in a maintenance dose
1 to 2	women receiving pharmacologic agents for cervical ripening
Intrapartum	
1 to 1	woman with medical (such as diabetes, pulmonary or cardiac disease, or morbid obesity) or obstetric (such as preeclampsia, multiple gestation, fetal demise, indeterminate or abnormal FHR pattern, women having a trial of labor attempting vaginal birth after cesarean birth) complications during labor
1 to 1	woman receiving oxytocin during labor
1 to 1	woman laboring with minimal to no pain relief or medical interventions
1 to 1	woman whose fetus is being monitored via intermittent auscultation
1 to 1	continuous bedside nursing attendance to woman receiving IV magnesium sulfate for the first hour of administration; 1 nurse to 1 woman ratio during labor and until at least 2 hours postpartum and no more than 1 additional couplet or woman in the patient assignment for a nurse caring for a woman receiving IV magnesium sulfate during postpartum
1 to 1	continuous bedside nursing attendance during initiation of regional anesthesia until condition is stable (at least for the first 30 minutes after initial dose)
1 to 1	continuous bedside nursing attendance to woman during the active pushing phase of second-stage labor
1 to 2	women in labor without complications
2 to 1	birth; 1 nurse responsible for the mother and 1 nurse whose sole responsibility is the baby

Nurse-to-Woman or Nurse-to-Baby Ratio	Care Provided
Postpartum and Newborn Care	
1 to 1	continuous bedside nursing attendance to woman in the immediate postoperative recovery period (for at least 2 hours)
1 to 3	mother-baby couplets after the 2-hour recovery period (with consideration for assignments with mixed acuity rather than all recent post-cesarean cases)
1 to 2	women on the immediate postoperative day who are recovering from cesarean birth as part of the nurse to patient ratio of 1 nurse to 3 mother-baby couplets
1 to 5-6	women postpartum without complications (no more than 2-3 women on the immediate postoperative day who are recovering from cesarean birth as part of the nurse to patient ratio of 1 nurse to 5-6 women without complications)
1 to 3	women postpartum with complications who are stable
1 to 5-6	healthy newborns in the nursery requiring only routine care whose mothers cannot or do not desire to keep their baby in the postpartum room
1	at least 1 nurse physically present at all times in each occupied basic care nursery when babies are physically present in the nursery
1 to 1	newborn boy undergoing circumcision or other surgical procedures during the immediate preoperative, intraoperative and immediate postoperative periods
1 to 3-4	newborns requiring continuing care
1 to 2-3	newborns requiring intermediate care
1 to 1-2	newborns requiring intensive care
1 to 1	newborn requiring multisystem support
1 to 1 or greater	unstable newborn requiring complex critical care
1	at least 1 nurse available at all times with skills to care for newborns who may develop complications and/or need resuscitation



Nurse-to-Woman or Nurse-to-Baby Ratio	Care Provided
Minimum Staffing	
2	A minimum of 2 nurses as minimum staffing even when there are no perinatal patients, in order to be able to safety care for a woman who presents with an obstetric emergency that may require cesarean birth (1 nurse circulator; 1 baby nurse, one or both of whom should have obstetric triage, labor and fetal assessment skills). A scrub nurse or surgical tech should be available in-house or on call such that an emergent birth can be accomplished within 30 minutes of the decision to proceed. Another labor nurse should be called in to be available to care for any other pregnant woman who may present for care while the first 2 nurses are caring for the woman undergoing cesarean birth and during post-anesthesia recovery.

† It should be recognized that these staffing ratios represent minimal staffing, require further consideration based on acuity and needs of the service, and assume that there will be ancillary personnel to support the nurse.

Scientific Research Linking Safe RN Staffing to Patient Safety

Implications of the California Nurse Staffing Mandate for Other States Linda H. Aiken, Ph.D., et al., Health Services Research, August 2010

The researchers surveyed 22,336 RNs in California and two comparable states, Pennsylvania and New Jersey, with striking results, including: if they matched California ratios in medical and surgical units, New Jersey hospitals would have 13.9 percent fewer patient deaths and Pennsylvania 10.6 percent fewer deaths. “Because all hospitalized patients are likely to benefit from improved nurse staffing, not just general surgery patients, the potential number of lives that could be saved by improving nurse staffing in hospitals nationally is likely to be many thousands a year,” according to Linda Aiken, the study’s lead author. California RNs report having significantly more time to spend with patients, and their hospitals are far more likely to have enough RNs on staff to provide quality patient care. Fewer California RNs say their workload caused them to miss changes in patient conditions than New Jersey or Pennsylvania RNs. In California, where hospitals have better compliance with the staffing limits, RNs cite fewer complaints from patients and families and the nurses have more confidence that patients can manage their own care after discharge. California RNs are substantially more likely to stay in their jobs because of the staffing limits, and less likely to report burnout than nurses in New Jersey or Pennsylvania. Two years after implementation of the California staffing law—which mandates minimum staffing levels by hospital unit—“nurse workloads in California were significantly lower” than Pennsylvania and New Jersey. “Most California nurses, bedside nurses as well as managers, believe the ratio legislation achieved its goals of reducing nurse workloads, improving recruitment and retention of nurses, and having a favorable impact on quality of care,” the authors write.

The Impact of Medical Errors on 90-Day Costs and Outcomes: An Examination of Surgical Patients William E. Encinosa and Fred J. Hellinger, Health Services Research, July 2008

A new study published in the journal Health Services Research found that the large difference in calculations for medical error expenses might mean that interventions to increase patient safety -- like adding more nursing staff -- could be more cost-effective than previously reported. The study found that insurers paid an additional \$28,218 (52 percent more) and an additional \$19,480 (48 percent more) for surgery patients who experienced acute respiratory failure or post-operative infections, respectively, compared with patients who did not experience either error. Preventing these and other preventable medical errors would reduce loss of life and could reduce healthcare costs by as much as 30 percent, the researchers said. "Many hospitals are struggling to survive financially," study co-author William Encinosa, senior economist at the Agency for Healthcare Research and Quality, said in a statement. "The point of our paper is that the cost savings from reducing medical errors are much larger than previously thought." Pointing to previous research that

looked at the business case for improving RN staffing ratios, the researchers concluded: "It is quite possible that the post-discharge costs savings achieved by reducing adverse events might just be enough for the hospital to break-even on the investment in nursing."

Overcrowding and Understaffing in Modern Health-care Systems: Key Determinants in Meticillin-resistant Staphylococcus Aureus Transmission Archie Clements, et al, Lancet Infectious Disease, July 2008

- A new study published in the July issue of the journal Lancet Infectious Disease finds that understaffing of nurses is a key factor in the spread of methicillin-resistant Staphylococcus aureus (MRSA), the most dangerous type of hospital acquired infection. "Overcrowding and understaffing have had a negative effect on patient safety and quality of care, evidenced by the flourishing of health-care-acquired MRSA infections in many countries, despite efforts to control and prevent these infections from occurring. There is an urgent need for a requirement for developing resource allocation strategies that minimize MRSA transmission without compromising the quality and level of patient care," the researchers concluded. The authors note that common attempts to prevent or contain MRSA and other types of infections such as requirements for regular and repeated hand washing by nurses are compromised when nursing staff are overburdened with too many patients. They also note that hospitals now involve nurses in a "vicious cycle" where a call for nurses to increase their infection control procedures "are seldom accompanied by increases in staffing levels and thus represent an additional work burden on nursing staff" that leads to a greater spread of infections.

Nurse Satisfaction and the Implementation of Minimum Nurse Staffing Regulations Joanne Spetz, Ph.D, Policy, Politics & Nursing Practice, April 3, 2008

- A statewide survey of nurses in California found that nurses perceived a significant improvement in their working conditions and were more satisfied with their jobs in the two years following implementation of the landmark California staffing law in 2004. According to the researchers, "Nurse satisfaction with many aspects of work increased significantly between 2004 and 2006. The largest changes in satisfaction, in percentage terms, were with adequacy of staff (a 12.95 % increase), providing patient education (+7.3%), clerical support (6.9%) and satisfaction with the job overall (5.9%)." The authors concluded: "A large body of research links job satisfaction, heavy workload, job stress, effective management and career development opportunities with turnover rates...It is possible that the improvements in RN satisfaction documented here will facilitate higher quality of care. High nurse turnover has a negative effect on the quality of care delivered to patients. If minimum staffing regulations improve nurse satisfaction, reduce job

stress, and relieve workload, nurse turnover may indeed decline, further improving the quality of hospital care.”

**Survival From In-Hospital Cardiac Arrest During Nights and Weekends
Mary Ann Peberdy, MD, et al., JAMA, February 20, 2008**

- A national study on the rate of death from cardiac arrest in hospitals found that the risk of death from cardiac arrest in the hospital is nearly 20 percent higher on the night shift. The authors highlight understaffing during the night shift as a potential explanation for the death rate. “Most hospitals decrease their inpatient unit nurse-patient ratios at night... Lower nurse-patient ratios have been associated with an increased risk of shock and cardiac arrest,” the authors stated.

**Nurse Staffing and Patient, Nurse and Financial Outcomes Lynn Unruh,
PhD, RN, AJN, January 2008**

- This report provides a comprehensive literature review of more than 21 studies published since 2002 that, according to the author, “underscore the importance of hospitals acknowledging the effect nurse staffing has on patient safety, staff satisfaction, and institutions’ financial performance.” According to the report, “the evidence clearly shows that adequate staffing and balanced workloads are central to achieving good patient, nurse, and financial outcomes. Efforts to improve care, recruit and retain nurses, and enhance financial performance must address nurse staffing and workload. Indeed, nurses’ workloads should be a prime consideration. If a proposed change would improve care and also reduce excessive (or maintain acceptable) workloads, it should be implemented. If not, it shouldn’t be.”

**The Impact of Nurse Staffing on Hospital Costs and Patient Length of Stay:
A Systematic Review Petsunee Thungjaroenkul, RN, MS, Nursing
Economics, Vol. 25, 2007**

- This study provides a comprehensive review of the research on the impact of RN staffing ratios on hospital costs and patient length of stay (LOS). It identified 17 studies published between 1990 and 2006 and concluded: "the evidence reflected that significant reductions in cost and LOS may be possible with higher ratios of nursing personnel in hospital settings. Sufficient numbers of RNs may prevent patient adverse events that cause patients to stay longer than necessary. Patient costs were also reduced with greater RN staffing as RNs have higher knowledge and skill levels to provide more effective nursing care as well as reduce patient resource consumption. Hospital administrators are encouraged to use higher ratios of RNs to non-licensed personnel to achieve their objectives of quality patient outcomes and cost containment."

**Newly Licensed RNs' Characteristics, Work Attitudes, and Intentions to
Work Christine T. Kovner, PhD, RN,, et al, AJN, September, 2007**

- A national study on the work experience and attitudes of newly licensed nurses in America found that the majority of new grads had been given full patient assignments immediately following their orientation, with poor supervision and management, while more than 45 percent reported having recently been given more than 6 patients to care for at one time -- a patient load that the researchers said placed their patients at an increased risk of injury or death. More than 55 percent reported that they had to work too fast; 33 percent reported having little time to get things done and nearly a third of new grads reported they had too many patients to get their job done well. Not surprisingly, as a result of these conditions, more than 37% of the new nurses say they plan to leave their current job in the next two years, and more than 41% say they, if free to do so, would take another job immediately. The authors conclude: "The proportion of newly licensed RNs who expressed negative attitudes on individual survey items raises the concern that employers will not be able to retain them in the acute care settings where they start out."

Staffing Level: a Determinant of Late-Onset Ventilator-Associated Pneumonia Stephanie Hugonnet, et al, Critical Care, July 19, 2007

- Understaffing of registered nurses in hospital intensive care units increases the risk of serious infections for patients; specifically pneumonia, a preventable and potential deadly complication that can add thousands of dollars to the cost of care for hospital patients. This type of pneumonia is a leading cause of as many as 2,000 patient deaths in Mass. hospitals, costing as much as \$400 million annually.

Nurse Working Conditions and Patient Safety Outcomes Patricia W. Stone, Ph.D., et al., Medical Care, 45(6): 571-578, June. 2007

- A review of outcomes data for more than 15,000 patients in 51 U.S. hospital ICUs showed that those with higher nurse staffing levels had a lower incidence of infections, such as central line associated bloodstream infections (CLSBI), a common cause of mortality in intensive care settings. The study found that patients cared for in hospitals with higher staffing levels were 68 percent less likely to acquire an infection. Other measures such as ventilator-associated pneumonia and skin ulcers were also reduced in units with high staffing levels. Patients were also less likely to die within 30 days in these higher-staffed units. Increasing RN staffing could reduce costs and improve patient care by reducing unnecessary deaths and reducing days in the hospital.

Hospital Workload and Adverse Events Joel S. Weisman, Ph.D., et al, Medical Care, 45(5): 448-454, May. 2007

- A study conducted by researchers at Brigham & Women's Hospital and Massachusetts General Hospital found that overcrowded and understaffed hospitals

that are pushing too hard to streamline and cut costs are putting their patients at risk for medication errors, nerve injuries, infections and other preventable mistakes, A 10% increase in the number of patients assigned to a nurse leads to a 28% increase in adverse events such as infections, medication errors, and other injuries.

Nurse Staffing and Quality of Patient Care Robert L. Kane, MD., et al, Evidence Report/Technology Assessment for Agency for Healthcare Research and Quality, AHRQ Publication No. 07-E005, May. 2007

- A comprehensive analysis of all the scientific evidence linking RN staffing to patient care outcomes found consistent evidence that an increase in RN-to-patient ratios was associated with a reduction in hospital-related mortality, failure to rescue, and other nurse sensitive outcomes, as well as reduced length of stay. Every additional patient assigned to an RN is associated with a 7% increase in the risk of hospital-acquired pneumonia, a 53% increase in respiratory failure, and a 17% increase in medical complications.

Quality of Care for the Treatment of Acute Medical Conditions in U.S. Hospitals Bruce E. Landon, MD, MBA., et al, Archives of Internal Medicine, 166: 2511-2517, Dec 11/25. 2006

- A national study of the quality of care for patients hospitalized for heart attacks, congestive heart failure and pneumonia found that patients are more likely to receive high quality care in hospitals with higher registered nurse staffing ratios.

Impact of Hospital Nursing Care on 30-day Mortality for Acute Medical Patients Ann E. Tourangeau, Ph.D., et al., Blackwell Publishing: 32-44, Aug. 2006

- A study of 46,000 patients in 76 hospitals found the adequacy of nursing staffing and proportion of registered nurses is inversely related to the death rate of acute medical patients within 30 days of hospital admission. The study's authors recommend that "if hospitals have goals of minimizing unnecessary patient death for their acute medical patient population, they should maximize the proportion of Registered Nurses in providing direct care."

HeathGrades Quality Study: Third Annual Patient Safety in American Hospital Study HealthGrades, Inc: April 2006

- 80,000 Medicare patients each year died between 2002 - 2004 in our nation's hospitals from preventable medical errors, with 63% of those deaths attributable to failure to rescue by a registered nurse or physician.

Nurse Staffing in Hospitals: Is There a Business Case For Quality? Jack Needleman, Ph.D., Peter Buerhaus, Ph.D., R.N., et al., Health Affairs, 25(1): 204-211, Jan.-Feb. 2006

- Increasing the proportion of RNs without increasing total nursing hours per day could reduce costs and improve patient care by reducing unnecessary deaths and reducing days in the hospital.

Longitudinal Analysis of Nurse Staffing and Patient Outcomes - More About Failure to Rescue Jean Seago, Ph.D., et al., JONA, 36(1): 13-21, Jan. 2006

- Increasing RN staffing increased patient satisfaction with pain management and physical care; while "having more non-RN" care "is related to decreased ability to rescue patients from medication errors."

Correlation Between Annual Volume of Cystectomy, Professional Staffing, and Outcomes - A Statewide, Population-Based Study Linda Elting, Ph.D., et al., Cancer, 104(5): 975-984, Sept. 2005

- Patients undergoing common types of cancer surgery are safer in hospitals with higher RN-to-patient ratios. High RN-to-patient ratios were found to reduce the mortality rate by greater than 50% & smaller community hospitals that implement high RN ratios can provide a level of safety and quality of care for cancer patients on a par with much larger urban medical centers that specialize in performing similar types of surgery.

Improving Nurse-to-Patient Staffing Ratios as a Cost-Effective Safety Intervention Michael Rothberg, et. al, Medical Care, 43(8): 785-791, Aug. 2005

- Improving RN-to-patient ratios could save thousands of lives each year and is more cost effective than clot-busting medications for heart attacks and strokes, and cancer screenings.

Hospital Speedups and the Fiction of the Nursing Shortage Gordon Lafer, Labor Studies Journal, 30(1): 27-45, Spring 2005

- "There is no shortage of nurses in the United States. The number of licensed registered nurses in the country who are choosing not to work in the hospital industry due to stagnant wages and deteriorating working conditions is larger than the entire size of the imagined 'shortage.' Thus, there is no shortage of qualified personnel there is simply a shortage of nurses willing to work under the current conditions created by hospital managers."

Nurses' Working Conditions: Implications for Infectious Disease Patricia W. Stone, et al., *Emerging Infectious Disease*, 10(11): 1984-1989, Nov. 2004

- Improving nurse staffing and working conditions "are likely to improve the quality of health care by decreasing incidence of many infectious diseases, and assisting in retaining qualified nurses."

The Working Hours of Hospital Staff Nurses and Patient Safety Ann E. Rogers, et al., *Health Affairs*, 23(4): 202-212, July/Aug. 2004

- Nurses working mandatory overtime are three times more likely to make a medical error. "Overtime, especially that associated with 12-hour shifts, should be eliminated."

Association Between Evening Admissions and Higher Mortality Rates in the Pediatric Intensive Care Unit Yeseli Arias, M.D., et. al, *Pediatrics*, 113(6): e530-e534, June 2004

- Children admitted to pediatric intensive care units at night are more likely to die in the first 48 hours of care; authors point to fatigue and lighter nurse staffing levels as contributing factors.

Consumer Perspectives: The Effect of Current Nurse Staffing Levels on Patient Care National Consumers League Report, May 2004

- National survey of recent patients in hospitals found that 45% believed their safety was compromised by understaffing of nurses; 12% believe their safety was extremely compromised. 78% of respondents support safe staffing legislation.

Nurse Staffing Levels and Quality of Care in Hospitals Mark W. Stanton, M.A., *AHRQ Research in Action*, 14; March 2004

- Poor hospital registered nurse staffing is associated with higher rates of urinary tract infections, post-operative infections, pneumonia, pressure ulcers and increased lengths of stay, while better nurse staffing is linked to improved patient outcomes.

Nurse Burnout and Patient Satisfaction Doris C. Vahey, Ph.D., et al., *Medical Care*, 42(2): II-57-II-66, Feb. 2004

- Improvements in nurse staffing in hospitals "simultaneously reduces nurses' high burnout and risk of turnover and increases patients' satisfaction with their care."

Is More Better? The Relationship Between Nurse Staffing and the Quality of Nursing Care in Hospitals Julie Sochalski, *Medical Care*, 42(2): II-67-II-73, Feb 2004

- Survey of 8,000 RNs in Pennsylvania hospitals found workload and understaffing contributed to medical errors and patient falls and to a number of important nursing tasks left undone at the end of every shift.

Nurse Staffing and Mortality for Medicare Patients with Acute Myocardial Infarction Sharina D. Peterson, Ph.D., et al., Medical Care, 42(1): 4-12, Jan. 2004

- "Medicare patients with AMI (heart attack) who were treated in higher RN staffing environments had a significant in-hospital mortality advantage." Conversely, patients are more likely to die in hospitals with high LPN staffing environments. "The mortality difference we observed are related to differences in hospital staffing patterns and may derive from substitution of personnel with less training or experience."

The Shocking Cost of Turnover in Health Care J. Deane Waldman, M.D., M.B.A., et al., Health Care Management Review, 29(1): 2-7, Jan. - March 2004

- The cost for advertising, training and loss in productivity associated with recruiting new nurses to a facility is \$37,000 per nurse at minimum and can add as much as 5% to a hospital's annual budget. Improving nurses' staffing conditions is a primary strategy for hospitals that can generate significant cost savings.

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Keeping Patients Safe: Transforming the Work Environment of Nurses (Executive Summary) Institute of Medicine, National Academy of Sciences, Nov. 2003

- Following up on the 1999 report on patient safety, To Err is Human, the Institute for Medicine calls for improved nurse-to-patient ratios, limits on mandatory overtime, and nurse involvement on every level to protect patients.

Licensed Nurse Staffing and Adverse Events in Hospitals Lynn Unruh, Ph.D., Medical Care, 41(1): 142-152, 2003

- Hospitals with better licensed nurse staffing had a significantly lower incidence of adverse patient events, including bed sores, patient falls and pneumonia.

Nurse Staffing, Quality, and Hospital Financial Performance Barbara Mark, Ph.D., et al., Journal of Health Care Finance, 29(4): 54-76, Summer 2003

- Increased staffing of registered nurses does not significantly decrease a hospital's profit margin, even though it boosts the hospital's operating costs.

The Effects of Nurse Staffing on Adverse Events, Morbidity, Mortality, and Medical Costs Sung Hyun Cho, Ph.D., et al., Nursing Research, 52(2): 71-79, March/April 2003

- Increasing nurse staffing by just one hour per patient day resulted in a 10% reduction in the incidence of hospital-acquired pneumonia. The cost of treating hospital acquired pneumonia is \$28,000 per patient.

Patient-to-Nurse Staffing Ratios: Perspectives from Hospital Nurses Peter D. Hart Research Corp., A Research Study for AFT Health Care, April 2003

- Three in five nurses say they are responsible for too many patients and the problem is harming care. 82% of nurses support legislation setting limits on nurses' patient assignments.

Hospital Nurse Staffing and Patient Mortality, Nurse Burnout, and Job Dissatisfaction Linda Aiken Ph.D., R.N., Journal of the American Medical Association, October 22, 2002

- For each additional patient over four assigned to an RN, the risk of death increases by 7% for all patients. Patients in hospitals with a 1:8 nurse-to-patient ratio have a 31% greater risk of dying than patients in hospitals with 1:4 nurse-to-patient ratios. Legislation to regulate RN-to-patient ratios is a credible means of protecting patients and to ending the nursing shortage.

Strengthening Hospital Nursing Jack Needleman, Ph.D., et al., Health Affairs, 21(5): 123-132, Sept./Oct. 2002

- "The implications of doing nothing to improve nurse staffing levels in many low-staffed hospitals are that a large number of patients will suffer avoidable adverse outcomes and hospitals and patients will continue to incur higher costs than are necessary."

Nurse Staffing and Healthcare-associated Infections Marguerite Jackson, Ph.D., R.N., et al., JONA, 32(6): 314-322, June 2002

- "There is compelling evidence of a relationship between nurse staffing and adverse patient outcomes," including serious bloodstream infections in hospital patients.

Nurse-Staffing Levels and Quality of Care in Hospitals Jack Needleman, Ph.D., et al., The New England Journal of Medicine, 346(22): 1715-1722, May 30, 2002

- A higher proportion of RNs in the staff mix and a greater number of nursing hours per day are associated with better patient outcomes.

Health Policy Report - Nursing in the Crossfire Robert Stimson, M.D., New England Journal of Medicine, 346(22): 1757-1766, May 30, 2002

- Provides a review of the research underlying the current crisis in nursing with recommendations for policy, including legislation to regulate RN ratios and to recruit nurses into the profession.

Health Care at the Crossroads: Strategies for Addressing the Evolving Nursing Crisis Joint Commission on Accreditation of Healthcare Organizations (JCAHO), 2002

- JCAHO found that low staffing levels were a contributing factor in 24% of patient safety errors resulting in injuries or death since 1996. Recommends transforming the nursing workplace and giving hospitals an incentive to invest in high quality nursing care.

Intensive Care Unit Nurse Staffing and the Risk of Complications After Abdominal Aortic Surgery Peter J. Pronovost, M.D., Ph.D., et al., Effective Clinical Practice, 4(25): 199-206, Sept./Oct. 2001

- Patients treated in hospitals with fewer ICU nurses were more likely to have medical complications, respiratory failure or need a breathing tube inserted. The study also found the ICUs with fewer RNs incurred a 14% increase in costs.

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Nurses' Reports on Hospital Care in Five Countries Linda H. Aiken, Ph.D., R.N., et al., Health Affairs, 20(3): 43-53, May/June 2001

- Study finds widespread job dissatisfaction among hospital nurses in the US due to understaffing and poor working conditions. Half of US nurses report the quality of care at their hospital has deteriorated in the last year; one in five nurses overall and one in three nurses under 30 plan on leaving bedside nursing.

The Nursing Crisis in Massachusetts Report of the Legislative Special Commission on Nursing and Nursing Practice, May 2001

- "It is the unanimous consensus of licensed nurses, health care personnel and administrators that the shortage of nursing care in the Commonwealth is endangering the quality of care that our nurses can provide to the patient." The Commission's top two recommendations to solve the crisis include legislation to ban mandatory overtime and to set RN-to-patient ratios.

ICU Nurse-to-Patient Ratio is Associated with Complications and Resource Use After Esophagectomy Peter J. Pronovost, M.D., Ph.D., et al., *Intensive Care Medicine*, 26: 1857-1862, 2000

- A nurse caring for more than two ICU patients at night increases the risk of several post-operative pulmonary and infectious complications and was associated with increased resource use. The study advocates a ratio of one RN to no more than two patients.

Organization and Outcomes of Inpatient AIDS Care Linda H. Aiken, Ph.D., R.N., et al., *LDI Issue Brief*, 8(1): Sept. 1999

- Higher nurse-to-patient ratios are strongly associated with a lower mortality for patients with AIDS in hospitals.

Nurse Staffing and Patient Outcomes Mary A. Blegen, Ph.D., R.N., et al., *Nursing Research*, 47(1): 43-50, Jan./Feb.1998

- Inpatient units with a higher proportion of RN care had fewer adverse patient outcomes, including fewer medication errors, bedsores and patient complaints. Conversely, when more care was delivered by non-RN team members, rates of bedsores, complaints and patient deaths increased.

Downsizing the Hospital Nurse Workforce Linda H. Aiken, Ph.D., R.N., et al., *Health Affairs*, 15(4): 88-92, Winter 1996

- Hospitals cut nurse staffing levels in the 90s by 7.3% nationally, while all other categories of hospital personnel increased, including a 46% increase in non-nurse administrative personnel and 50% increase in other direct care staff. Massachusetts cut its RN staffing by 27%, highest in the nation.