Introduction

In 2004 the Institute for Healthcare Improvements (IHI) encouraged hospitals in the United States to implement Rapid Response Teams (RRTs), which was one of six life-saving strategies recommended by the IHI to improve patient outcomes. It was part of its 100,000 Lives Campaign. www.ihi.org. Today, more than 2,700 hospitals have joined nationwide and implemented RRT strategies which now have become the standard of care for prevention of avoidable deaths. Proponents of rapid response teams have been given names such as STAR or STAT teams. These teams are composed of clinicians with ICU-level clinical expertise.

The Latest Safety Scheme

Management consultants, pushing their “safety” schemes, state that there are various systemic factors that contribute to the variability of the safety of patients in healthcare today: (1) failure in planning patient care (including patient assessments, treatments, identifying and implementing goals); (2) failure to communicate (patient to direct-care RN, shift/transfer report from RN to RN; and RN to MD reports); and (3) failure to recognize deteriorating patient condition.

According to these consultants, the RRT stands to impact this “failure to rescue” state of affairs by identifying unstable patients and those patients likely to suffer cardiac, respiratory arrest, or some other deadly outcome. The goal is to respond to a “spark” (subjective patient complaints, signs, and symptoms) before it becomes a “forest fire” (cardiac or respiratory arrests).

Critics of the RRT strategy have argued that this is just another corporate “penny wise pound foolish” scheme to countermand the “failure to rescue” criticism directed towards the hospital industry. Instead of placing the patients in a higher level of care based on their severity of illness and acuity, these patients are admitted on medical-surgical units with less rich RN staffing ratios, being cared for by nurses who do not have demonstrated and validated competencies in providing critical care. According to critics, the deployment of RRTs has created a false sense of security among RNs and patients alike, including the patients’ families who are given the RRT’s stat Code H number so they can call the team directly.

They further question the logic. Who has the responsibility and accountability to identify and recognize the patient’s deteriorating condition? Answer: the direct-care RN assigned to the patient, not the RRT team. Who has the responsibility to initiate competent interventions? The answer again is the direct-care RN assigned to the patient, not the RRT team.

Early Detection and Early Intervention

In order to be able to assess and intervene in a timely manner, there must first be sufficient numbers of direct-care RNs with current demonstrated competency present and available. What is confusing is that the RRT team is touted as the stabilizer of a pre-“forest fire” condition and not the identifier of deteriorating conditions.

The requirement is that when a patient’s vital signs reaches a close to what is sometimes called a “flat line” or “near miss,” then stat page the STAR or similar type of team.

Question: Why wait? There seems to be three stages of deterioration: (1) subtle decline in the patient’s vital signs and status; (2) STAR or RRT-team level of deterioration creating a “near miss” situation; and; (3) patient crashed, requiring full resuscitation/Code Blue or ending up in a “failure to rescue” situation.

This conjures up another question. Why is there a need for an intermediary team? In many instances hospitals “break” the “ratios” when the team is deployed. Members of the RRT team may be assigned to provide meals/break relief and are instantaneously pulled off, or a 1:1 ICU patient may be instantly reclassified as a 1:2 to accommodate the RRT team.

Current, Demonstrated and Validated Competency

Prior to market-driven corporate healthcare, direct-care RNs, in general, had the required unit-specific demonstrated and validated competency to take care of patients who were admitted to the unit. Units would have a designated Charge Nurse and/or Clinical Nurse Specialist (CNS), an expert, who would be available to assist with assessments, provide consultation, and perform sophisticated and
complex interventions to stabilize the patient. Or who, in collaboration with the direct-care RN, can make a determination that the patient be transferred to a critical care unit with richer ratios and more sophisticated equipment and technology. Every opportunity was used to do teaching. The goal was to strive for expertise in a designated area of clinical specialty.

Today, hospital units have become “combo” units, where patients are housed in non-ICU/CCU “tele” box, “medical monitoring” or centrally monitored beds when, in reality, their condition requires a higher level and intensity of care with a richer direct-care RN-to-patient ratio. Couple this with a feeble attempt to substitute the expertise and role of the CNS and Charge Nurse with that of the RRT under more dire and life-threatening situations, and you have a recipe for a disaster. Plus, it drives fragmentation of care through deskilling (dumbing down) of the role of the direct-care RN by concentrating specialized knowledge at the RRT team level only.

All direct-care RNs should have the skill and knowledge to recognize early alteration in the patient’s physical and cognitive condition. This requires a vibrant education/in-service department, and a commitment to striving for true excellence in patient care and outcomes. Validation of condition deterioration comes from collaboration with a Charge Nurse, CNS or Resource Nurse. As for reporting or referring, in our patient advocacy role, we must at times wake up an attending physician or intern/resident in the middle of the night and report the patient’s condition, and secure treatment that will stabilize the patient.

**Safe Staffing Standards**

**Compare this with California’s Safe Staffing Standards.** These standards are clear as to its priority: (1) Staffing standards based on individual patient acuity of which the ratio is the minimum; (2) Additional licensed and unlicensed staff based on direct-care RN assessment and documented patient classification system; (3) The ratios apply at all times including meals and breaks, and authorized absences from the unit.

This means that all California acute-care hospitals must first budget for the mandated ratio threshold and the additional RN and non-RN staff needed to meet the patient’s requirements and needs. Next, the budget must provide for a Float/Meals and Break Relief Team, now including relief when the RRT responds to a stat call and is absent from the unit. The mandate requires no doubling-up of the assignment.

Research findings have documented significant relationships between failure to rescue and nursing organizational characteristics. Failure to recognize deterioration in the patient condition until major complications, including death, have occurred is referred to as “failure to rescue,” which is a measure of the overall performance of a hospital with respect to the healthcare professional’s ability to recognize subtle changes in the patient’s condition and react independently to post-operative complications such as bleeding or sepsis. Failure to rescue is increasingly studied as a quality-of-care measure.

The original research conducted on failure to rescue identified a strong and significant association with nurse-to-patient ratios in a sample of surgical patients (Silber Rosenbaum, & Ross, 1995). They concluded that failure to rescue is an appropriate measure to study quality of care because hospital staffing characteristics are more likely to influence the measure. The complications studied are detectable by nurses and can be managed successfully with timely intervention. Recognition of complications at an early stage and initiation of therapeutic interventions reduces morbidity and mortality.

For decades, nurses have reported that there are not enough nurses in hospitals to provide high-quality care. In response to

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**References**


Johns Hopkins Medicine News September 2010, Rethinking How Hospitals React When a Patient’s Health Deteriorates.

Peter J. Pronovost, MD, PhD & Eugene Litvak, PhD JAMA, September 22/29, 2010—Vol 304, No. 12 Rethinking Rapid Response Teams.
these concerns, Congress in 1993 requested an Institute of Medicine (IOM) study of the adequacy of nurse staffing in hospitals and nursing homes. The IOM noted there was insufficient empirical evidence to determine adequacy. Since then, the evidence supporting an association between nurse staffing and better patient outcomes has grown.

In October 1999, the California State Legislature passed AB394 (Kuehl), adding section 1276.4 to the Health and Safety Code (HSC). This landmark safe-staffing legislation required the California Department of Health Services (CDHS) to develop a staffing ratio threshold based on scope of practice which includes minimum, specific, numerical licensed nurse–to-patient ratios for specified units of all general acute-care hospitals in California.

The Legislature examined the evidence and decided that the quality of patient care was related to the number of RNs at the bedside, and pushed to ensure a minimum, adequate number. In addition the regulations require that hospitals have a valid patient classification system (PCS) in place, requiring hospitals to flex-up their staffing, above the minimum required, to assure that the number of nursing staff was aligned to the healthcare needs of individual patients.

The California Department of Health Services undertook a multiyear process to determine the minimum ratios to be mandated based upon research and other factors. Aiken et al. (2002) reported that each patient added to nurses’ workloads was associated with a 7 percent increase in mortality following common surgeries. Replications in Canada, England, and Belgium produced similar findings as did other studies in the United States.

The Department of Health Services further defined hospital units and appropriate patient population for the purposes of licensing and certification of healthcare facilities and for monitoring compliance with existing public health and safety regulations. Because the literature describes the most common factor underlying failure to rescue as “triage error” or admission to a unit other than one that provides the optimal level of care required by the patient, it’s instructive to include a review of unit/patient population definitions upon which the California nurse-to-patient ratio law and staffing standards are predicated.

The California nurse-to-patient ratio in a step-down unit shall be 1:3 or fewer at all times. 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 in medical/surgical care. “Artificial life support” is defined as a system that uses medical technology to aid, support, or replace a vital function of the body that has been seriously damaged. “Technical support” is defined as specialized equipment and/or personnel providing for invasive monitoring, telemetry, or mechanical ventilation, for the immediate amelioration or remediation of severe pathology.

The California nurse-to-patient ratio in a telemetry unit shall be 1:4 or fewer at all times. “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.

The California nurse-to-patient ratio in medical/surgical care units shall be 1:5 or fewer at all times. A medical/surgical unit is a unit with beds classified as medical/surgical in which patients, who require less care than that which is available in intensive care units, step-down units, or specialty care units, receive 24-hour inpatient general medical services, post-surgical services, or both general medical and post-surgical services. These units may include mixed patient populations of diverse diagnoses and diverse age groups who require care appropriate to a medical/surgical unit.

The California nurse-to-patient ratio in a specialty care unit shall be 1:4 or fewer at all times. A specialty care unit is defined as a unit which is organized, operated, and maintained to provide care for a specific medical condition or a specific patient population. Services provided in these units are more specialized to meet the needs of patients with the specific condition or disease process than that which is required on medical/surgical units, and is not otherwise covered by the described units.

Identifying a unit by a name or term other than those described does not affect the requirement to staff at the ratios identified for the level or type of care described in the California regulations.

The California mandates can be viewed as a benchmark against which to compare hospitals within California and between California and other states, according to Aiken, et al. In 2010 Aiken published the results of their study which examined how nurse and patient outcomes, including patient mortality and failure-to-rescue, are affected by the differences in nurse workloads. (The study is suggested reading in the literature described in the references. It can be found online by typing “Aiken HSR” into the search field at www.nationalnursesunited.org.)


New Jersey hospitals would have 14 percent fewer patient deaths and Pennsylvania 11 percent fewer deaths if they matched California’s 1:5 ratios in surgical units.

Fewer California RNs miss changes in patient conditions because of their workload than New Jersey or Pennsylvania RNs.

In California hospitals with better compliance with the ratios, 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 far more likely to stay at the bedside, and less likely to report burnout than nurses in New Jersey or Pennsylvania.

**Duty and Standard of Care**

**LET’S REVIEW RELEVANT LAWS regulating RN practice.** The primary duty performed by registered nurses in acute-care hospitals is ongoing patient assessment, sometimes referred to as ongoing patient surveillance or monitoring. In general, such assessment requires direct observation of signs and symptoms of illness, reaction to treatment, general behavior, or general physical condition, and a determination of whether the signs, symptoms, reactions, behavior, or general appearance exhibit abnormal characteristics (Nursing Practice Act). Furthermore, RNs must formulate/design and implement a care plan based on observed abnormalities and then evaluate the patient’s response.
According to the Institute of Medicine (IOM), assessment is “an important mechanism for the detection of errors and the prevention of adverse events.” Studies have shown that errors typically result from problems within the system (e.g. acute-care hospitals or nursing homes) where people work.

In its publication *To Err is Human*, the IOM endorses the systems approach to understanding and reducing errors and notes that failure in large systems, such as hospitals and their various patient care units, are mostly due to unanticipated events or factors occurring within multiple parts of the system.

Direct-care registered nurses, typically, do not control the system. The corporation controls the system. It determines budgetary priorities, expenditures, and cost containment schemes based on its philosophy, mission, and vision.

An overt violation of safety standards set by a state, e.g. safe staffing ratios or interfering with the RN ability to perform ongoing patient assessment for early detection of a change in the patient status, can cause devastating errors resulting in sentinel events.

**Duty and Right to Advocate in the Exclusive Interest of the Patient**

RNs have a duty to recognize circumstances that cause harm to their patients and activities and decisions that in their professional judgment are against the interest of their patients. RNs have the right to advocate in the exclusive interest of their patients and must be able to do so without fear of retaliation or reprisal.

Direct-care RNs are inseparably linked to patient safety. Safe staffing standards, based on the patient’s acuity, allow the direct-care RN to observe the subtle changes in the patient condition and recognize the early signs and symptoms of the beginning of a patient’s decline. These can only be detectible through the direct-care RN physical presence and her/his ability to directly observe changes in the patient’s physical and cognitive status.

This Rapid Response Team approach has not been scientifically validated; it is based on assumptions and so called “best practices” also known as “just-in-time” nursing and medicine. It blatantly disregards scientific studies finding that the association of RN staffing levels with the rescue of patients with life-threatening conditions suggests that RNs contribute importantly to surveillance, early detection, and timely intervention that save lives.

RNs should always advocate for the appropriate placement of the patient, where the patient is cared for on a unit that can provide safe, therapeutic, and effective patient care delivered in a competent manner.

**Rapid Response Teams Do not Cut Hospital Heart Attacks and Death Rates**

In the December 2008 edition of the *Journal of the American Medical Association* (JAMA) titled: “Hospital-wide Code Rates and Mortality Before and After Implementation of Rapid Response Teams,” Chan PS, et al reported that Rapid Response Teams set up to spot patients at risk for cardiac or respiratory arrest in U.S. hospitals do not save lives. On the contrary, studies show that Rapid Response Teams set up to spot patients at risk for cardiac or respiratory arrest in U.S. hospitals do not save lives.
## Rapid Response Teams

For continuing education credit of 2.0 hours, please complete the following test, including the registration form at the bottom, and return to: NNU Nursing Practice, 2000 Franklin St., Oakland, CA 94612. We must receive the complete home study no later than October 15, 2011 in order for you to receive your continuing education credit.

### 1. Ensuring that all direct-care RNs have the skill and knowledge of how to recognize early alteration in the patient’s physical and cognitive condition requires a vibrant education/in-service department, and a commitment to striving for true excellence.

- [ ] True  
- [ ] False

### 2. Collaboration with a charge nurse, clinical nurse specialist (CNS), or resource nurse validates deterioration of the patient’s condition.

- [ ] True  
- [ ] False

### 3. Highly paid management consultants’ “best practices” show that patients can be cared for on the med/surg unit rather than ICU or step-down with the RRT ready for “just-in-time” nursing and medicine.

- [ ] True  
- [ ] False

### 4. In addition to being an effective evidence-based patient safety strategy, rapid response teams are a good way to measure patient satisfaction.

- [ ] True  
- [ ] False

### 5. Consultants created the RRT to compensate for systemic factors that include failure to assess and plan patient care, failure to communicate, and failure to recognize deteriorating patient condition.

- [ ] True  
- [ ] False

### 6. Minimum staffing ratios and staffing up based on acuity is a safety standard that allows the direct-care RN’s physical presence and her/his ability to directly observe the early signs and symptoms of the beginning of a patient’s decline.

- [ ] True  
- [ ] False

### 7. The safe staffing standards in California allow the hospital to “break” the ratios when the rapid response team is responding to the stat page.

- [ ] True  
- [ ] False

### 8. The direct-care registered nurse assigned to the patient has the responsibility and accountability for identifying and recognizing the patient’s deteriorating condition.

- [ ] True  
- [ ] False

### 9. Research has shown that Rapid Response Teams do cut death rates. It has been scientifically validated.

- [ ] True  
- [ ] False

### 10. The Rapid Response Team may have resulted in an increase in patients and families issuing “Do Not Resuscitate” or DNR orders that prohibit hospital staff from taking life-saving measures.

- [ ] True  
- [ ] False

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