

Overcoming Barriers Impeding Nurse Activation of Rapid Response Teams



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Abstract

Management of rapid patient deterioration requires prompt recognition and swift response by bedside nurses and specially trained personnel, who successfully intervene to improve patient outcomes. Timely recognition and activation of rapid response mechanisms requires prudent nursing care. When patient needs and nurse competencies are unbalanced, patient outcomes decline and nurse confidence diminishes. This article offers a brief [background](#) of rapid response, including the supporting [theoretical framework](#). Also discussed are [barriers to nursing](#) action that result in synergistic imbalance, including: bedside nurse competence to recognize patient deterioration and activate rapid response systems; bedside nurse clinical judgment, interdisciplinary teamwork; and organizational culture. The article includes [implications for practice](#) aims to address identified barriers and improve patient outcomes.

Citation: Clayton, W.R., (July 19, 2019) "Overcoming Barriers Impeding Nurse Activation of Rapid Response Teams" *OJIN: The Online Journal of Issues in Nursing* Vol. 24, No. 3.

DOI: 10.3912/OJIN.Vol24No03PPT22

Key Words: rapid response team, interdisciplinary team, simulation training, organizational culture, patient safety, inpatient mortality, collaboration, coaching, patient outcomes, failure to rescue

Management of rapid patient deterioration requires prompt recognition and swift response by bedside nurses and specially trained personnel, who successfully intervene to improve patient outcomes. Appropriate recognition and initiation of life-saving interventions depends heavily on the competencies, skill sets, and experiences of the bedside nurse ([Dobuzinsky, 2017](#)). The advent of rapid response teams (RRT) mobilized critical care interventions to the non-intensive care patient, in order to mitigate in-hospital mortality and morbidity. In 2004, the Institute of Healthcare Improvement (IHI) identified the need for rapid response mechanisms for patient deterioration as essential healthcare to abate in-patient mortality and improve patient safety ([IHI, 2017a](#)). The Agency for Healthcare Research and Quality (AHRQ) and the IHI stressed the importance of timely recognition and activation of RRTs as indicators for optimal patient outcomes ([AHRQ, 2017b](#); [IHI, 2017b](#); [Patient Safety & Healthcare Quality, 2005](#)). "Failures in planning and communication, and failure to recognize when a patient's condition is deteriorating, can lead to failure to rescue and become a key contributor to in-hospital mortality" ([IHI, 2017b](#), n.p.).

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Nursing shortages, poorly developed educational activities, and insufficient organizational safety practices contribute to delayed responsiveness to deteriorating patients by bedside nurses ([Subbe & Welch, 2013](#)). Delayed intervention results in patient demise and disability, as well as increased financial burden for the patient and the organization ([Chan et al., 2008](#); [Leach & Mayo, 2013](#)). Precise, swift execution of care for the rapidly deteriorating patient requires bedside nurses to exercise clinical judgment and confident actions to improve patient outcomes.

The advent of rapid response teams (RRT) mobilized

This article offers a brief background of rapid response, including the supporting theoretical framework. Also discussed are barriers to nursing action that result in synergistic imbalance, including: bedside nurse competence to recognize patient deterioration and activate rapid response systems; bedside nurse clinical judgment; interdisciplinary teamwork; and organizational culture. The article

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Background

Bedside nurses provide continuous observation and assessment of hospital patients. Optimal patient outcomes center on the detection of subtle changes in patient condition and the subsequent actions taken by bedside nurses ([Chan et al., 2008](#); [White, Scott, Vaux, & Sullivan, 2015](#)). Timely recognition requires vigilance and astute assessment from bedside nurses, as well as confident engagement with higher-skilled colleagues. Timely recognition and activation calls for balancing the patient's complex healthcare needs with the nurse's skills and competencies ([Angel et al., 2016](#); [Dobuzinsky, 2017](#)). Early detection and prompt mobilization of resources reduces the number of deaths outside of the intensive care unit (ICU). However, the challenge rests in the identification of the subtle signs of a deteriorating patient by the bedside nurse and subsequent activation of the response team ([AHRQ, 2017b](#); [Dobuzinsky, 2017](#); [Tait, 2010](#)). This article identifies barriers impeding nurse activation of rapid response teams for clinically deteriorating patients and proposes recommendations for future practice.

Early detection and prompt mobilization of resources reduces the number of deaths outside of the intensive care unit

Theoretical Framework

Barriers that affect patient care indicate failed synergy between patient needs and nurse skills.

Healthcare complexities are vast and rapidly change in the current environment. Increased patient needs and acuity, resulting from medical advancements, are extending life expectancy. Patient and family preference regarding end-of-life options also impact life expectancy. As a result, nurses may be unprepared to address increasing demands of patient physical, psychological, and spiritual needs. Bedside nurses, typically unprepared in critical care interventions, will need to expand their competencies along a continuum of practice, further developing clinical decision-making skills to prepare them for complex situations ([Petiprin, 2016](#)). "Synergy results when the needs and characteristics of a patient, clinical unit or system are matched with a nurse's competencies" ([AACN, 2017](#), n.p.). The American Association of Critical Care Nurses (AACN) Synergy Model for Patient

Care balances patient needs with nurse competencies to optimize patient care and outcomes ([Hardin & Hussey, 2003](#), p. 73). This theoretical framework serves as the foundation to identify the barriers that affect a nurse's ability to recognize patient deterioration and appropriately activate RRTs.

Barriers that affect patient care indicate failed synergy between patient needs and nurse skills. The *AACN Synergy Model for Patient Care* provides five assumptions to guide patient care and eight patient characteristics which determine patient vulnerability and condition ([AACN, 2017](#); [Hardin & Hussey, 2003](#)). The assumptions, as shown in the [Table](#), describe the context for patient care through the identification of holistic complexities, relationships, and defined goals for wellness. Fidelity to the patient's desires and needs warrants review of his or her ability to manage the spectrum of characteristics that influence health outcomes.

Table 1. Patient Characteristics Guiding Patient Care

Patient Characteristic	Description
<i>Resiliency</i>	Is the patient willing to adhere to a treatment plan and persevere through the process?
<i>Vulnerability</i>	Is the patient susceptible to poor and/or unfavorable outcomes?
<i>Stability</i>	Is the patient able to withstand treatment and intervention?
<i>Complexity</i>	Is there a high degree of difficulty affecting the patient's body systems or in the patient's support systems?
<i>Resource Availability</i>	Does the patient have enough resources to support the healthcare situation?

<i>Participation in Care</i>	Are the patient and/or family able to fully engage in the plan of care?
<i>Participation in Decision-making</i>	Are the patient and/or family able to engage in decision-making?
<i>Predictability</i>	Is the patient able to handle the complexity and instability of the situation?

(AACN, 2017; Hardin & Hussey, 2003)

The bedside nurse's ability to identify and assess patient characteristics facilitates timely response and acknowledgement of appropriate interventions for rapidly deteriorating patients. However, this is only one half of the equation. Synergy necessitates a combined effort and link between the patient's needs and the nurse's ability. Nursing care competencies for optimal patient outcomes exist on a continuum of care and are prioritized based on the patient circumstances and condition (Hardin & Hussey, 2003). Nurse competencies include: clinical judgement; advocacy and moral agency; caring practices; facilitation of learning; collaboration; systems thinking; response to diversity; and clinical inquiry (AACN, 2017).

Gaps in clinical judgment and clinical inquiry cause failures in nurse responsiveness to signs of patient deterioration (Astroth, Woith, Jenkins & Hesson-McInnis, 2017; Chan et al., 2008; Dobuzinsky, 2017; Garvey, 2015; Parker, 2014; Tait, 2010). Failure to respond to the clinical signs of deterioration compromises patient outcomes potentially increasing in-hospital mortality and morbidity. These missed opportunities may relate to the incongruence between patient needs and nurse competencies. Attaining balance between these needs and competencies yields better patient outcomes through appropriate nursing interventions.

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Barriers to Nurse Actions

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Ineffective training and clinical judgment, cumbersome processes and teamwork, and a poorly developed organizational culture of safety are barriers that affect nurses' abilities to appropriately manage patient assignments. Bedside nurses provide continuous surveillance of the patient's condition, thus anticipating and/or predicting changes signaling decline (Benner, 2001). Research suggests that patient deterioration occurs within hours of a change in level of care, whether admission to an inpatient unit from the emergency department or a transfer from the intensive care unit or surgical suite (Walston et al., 2016). Heightened awareness and observation of these patients require appropriate staffing levels to support the bedside nurse's ability to monitor and trend changes in a patient's condition (Wakeam, Hyder, Ashley, & Weissman, 2014).

Beside nurses must not only monitor and trend changes, but also appropriately identify when changes in a patient's condition warrant attention. To correctly identify deviations in a patient's baseline condition, bedside nurses must exercise critical thinking and clinical judgment congruent to the patient's condition. Additionally, clinical relationships and team performance influence the actions and/or inactions of the bedside nurse. At times, these relationships reflect a deep chasm between organizational culture and patient safety. In combination, poor clinical judgment, fragmented teamwork, and a weak organizational culture for patient safety impedes appropriate action by bedside nurses for their patients.

Clinical Judgment Factors

Bedside nurses provide the first-line of defense against rapid decline in a patient's condition. Assessing and understanding physiological changes in a patient involves proactive surveillance and prudent decision-making (Fasolino & Verdin, 2015). Evaluation of these changes is crucial to optimal patient outcomes and prevents failure to rescue (Garvey, 2015). Experienced nurses are experts in clinical decision-making, confident in evaluating the patient's condition, and expeditious in rapid intervention. Conversely, novice nurses experience trepidation evaluating physiologic changes and express apprehension in decision-making (Astroth et al., 2017). Hesitation and uncertainty cause delays in life-saving interventions and contribute to poor patient outcomes. Indecision can be mitigated through targeted training of RRT and incorporation of early warning systems (Alsherhri, Ljungberg, & Ruter, 2015; Mullany, Ziegenfuss, Goleby, & Ward, 2016).

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Novice bedside nurses describe feeling worried or concerned for their patients, stating "something is wrong," but are unable to clearly articulate or describe patient changes (Tait, 2010). Inexperience, coupled with an inability to connect perceptions with clinical findings, suggests unbalanced synergy and creates discord between experienced

team members, physicians, and novice nurses, thus further disrupting effective and efficient team intervention. Intuition is vital to nursing judgment and clinical decision-making as it integrates emotional and physical awareness with spiritual connectedness between nurse and patient ([Michael et al., 2015](#)). The *AACN Synergy Model for Patient Care* illustrates that unbalanced synergy destabilizes the relationship between the nurse's abilities and the patient's condition, threatening poor outcomes resulting from inappropriate intervention. Hesitation and uncertainty from bedside nurses not only jeopardize patient outcomes, but also compromise clinical relationships.

Clinical Relationships and Teamwork

Bedside nurses report feeling "dissuaded" to activate RRT by peers and physicians, perpetuating insecurities about their skills ([Alsherhri et al., 2015](#), p. 9). Critical, intimidating, and judgmental communication from RRT members threaten collaborative efforts. Novice nurses are less likely to activate a RRT as a result of (or due to) intimidation from expert nurses ([Astroth et al., 2017](#)). Failure to communicate situational urgency and/or stress the severity of a patient's condition perpetuates disconnect between bedside nurses and members of the RRT ([Wakeam et al., 2014](#)).

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Indifferent responsiveness from RRT team members to activation of the team response by bedside nurses perpetuates about attitude of distrust and skepticism among healthcare professionals. Gender roles and job titles influence relationships within a team and, as a result, bedside nurses describe feeling inferior to advanced skill nurses, thus limiting appropriate responses or interventions by bedside nurses ([Speck, Jones, Barg, & McCunn, 2012](#)). Hierarchical structures have the potential to emphasize disharmony between roles and positions affecting the "psychological safety" of an organization ([Wakeam et al., 2014](#)). Disruptions in the psychological safety of an organization undermine clinical judgment, dissuade empowerment, and negatively influence organizational culture.

Organizational Culture

Organizational culture drives recognition and activation of RRTs through support of bedside nurse education and competency training. Practice and process variations create vulnerability and inaccuracy of patient assessments by bedside nurses ([White et al., 2015](#)). The realities of nurse-patient ratios, limited resources, and/or clinical support often overwhelm the bedside nurse's ability to be vigilant and practice timely intervention ([Mailey et al., 2006](#); [Wakeam et al., 2014](#)). Organizational culture using blame and intimidation as a means to improve processes decreases nurse retention efforts and job satisfaction, jeopardizes patient outcomes, and weakens efforts for patient safety ([Astroth et al., 2017](#)). Synergy fails without robust clinical judgment, effective teamwork, and organizational safety culture. Synergistic efforts improve patient outcomes by reducing adverse patient events; inpatient mortality and morbidity rates; hospital length of stay; and improving patient/family satisfaction.

Implications for Future Practice

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Nurses are expected to achieve and maintain high-levels of competency regarding recognition of deteriorating clinical signs in patients ([Waldie, Tee, & Day, 2016](#)). Globally, healthcare organizations are improving the nurse's ability to recognize and respond to changes in patient condition through investment of human resources and financial support for education ([Astroth et al., 2017](#)). Supporting novice nurses, and those with limited clinical experience in clinical assessment, is essential to improve patient outcomes ([Parker, 2014](#)). Synergy between bedside nurse competencies and patient needs or demands creates an optimal healthcare environment. Most bedside nurses, including those in specialty areas such as pediatrics or psychiatry, require advanced training and simulation modules focused on the early warning signs and symptoms of patient deterioration ([Manu et al., 2015](#); [Roberts et al., 2014](#)). Future implications for nursing practice include dynamic, multimodal education strategies, robust team relationships, and organizational safety culture.

Enhanced Education Strategies

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Clinical decision-making and experiential learning support the translation of theoretical knowledge into the application of interventions. Technological advancements, such as telemedicine and simulation training modules, will reinforce the transference of education to practice ([Waldie et al., 2016](#)). Dynamic simulation training supports the adoption of skills into practice and guided

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reflection activities following simulation connect practice to performance ([Lavoie, Pepin, & Cossette, 2015](#)). Simulation with reflection provides effective opportunities for nurses to adopt better assessment and clinical judgment skills. Focused education stimulates positive collaborative efforts and interdisciplinary partnerships targeted toward patient safety ([Moriarty et al., 2014](#)). Multimodal education components allow for deep connectivity between skill development and knowledge, thus creating a bridge to practice ([Hart et al., 2015](#)).

Competency mastery is achieved through simulation training, demonstrated in preceptor-paired activities, and established with clinical pathways and evidence-based practice (EBP) guidelines ([Parker, 2014](#)). Clinical preceptorship combines education, simulation, and practice to refine critical thinking and clinical judgment skills in a non-threatening manner. This improves the bedside nurse's ability to collaborate with the interdisciplinary team ([Hart et al., 2015](#)). Preceptors provide real-time coaching and feedback necessary to hone and deepen nurse competencies, skills, and communication efforts.

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Training and maintaining competencies to manage patient deterioration yields improved patient care. Visual tools and assessment systems assist bedside nurses in rapid assessment of patient condition and increase their focus on subtle patient changes ([Garvey, 2015](#)). Tools and assessment systems are enhanced when nurses develop and employ analytical decision-making strategies. Rapid responses and interventions necessitate that bedside nurses demonstrate competencies and skills synergistic with a patient's condition. Synergy requires nurse engagement and empowerment to fully complement the patient's condition. Nurses must be empowered to apply critical thinking and clinical judgment to patients with the focus on reducing patient harm and improving patient outcomes ([Astroth et al., 2017](#); [Wakeam et al., 2014](#)).

Collaborative Teamwork

Successful interdisciplinary collaboration and communication is built on a foundation of mutual respect, a shared mission and vision, and fidelity to the patient. Nurses demonstrate effectiveness after targeted training and clinical tools for patient assessment are coupled with supportive practices from peers, preceptors, and interdisciplinary colleagues ([Alsherhri et al., 2015](#); [Tait, 2010](#); [Wakeam et al., 2014](#)). Proactive nursing policies and interventions to identify signs of deterioration in patients yield improved communication among interdisciplinary teams ([Mailey et al., 2006](#)). Rounding and SBAR communication tools provide early warnings of patient decline and provide coaching opportunities from experienced colleagues to bedside nurses ([Alsherhri et al., 2015](#); [Wakeam et al., 2014](#)). Furthermore, bedside nurses must proactively discuss patient disposition at the time of admission or transfer from another inpatient unit with interdisciplinary teams. Appropriate disposition at the time of admission is identified as an important factor in patient safety and patient outcomes ([Wakeam et al., 2014](#); [Walston et al., 2016](#)).

Rounding and
SBAR
communication
tools provide early
warnings of patient
decline and provide
coaching
opportunities from
experienced
colleagues to
bedside nurses

Organizational
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Critical care guidelines and best practices inform development of education activities and simulation training. These activities should include all members of the interdisciplinary team to promote cohesion, communication, and collaborative practice ([Speck et al., 2012](#)). Organizational commitment to the RRT encourages multidisciplinary approaches to response efforts and provides the necessary foundation for continued improvements in skill-building and education among hospital staff ([Avis, Grant, Reilly, & Foy, 2016](#)). A dedicated interdisciplinary RRT reduces barriers to bedside nurse activation by formalizing and standardizing processes for patient surveillance ([Mailey et al., 2006](#); [Wakeam et al., 2014](#)). This dedicated resource improves patient care by reducing unfounded alert and response calls and improves nurse satisfaction by building rapport and collaboration among hospital staff ([Angel et al., 2016](#); [Avis et al., 2016](#); [Leach & Mayo, 2013](#); [Mailey et al., 2006](#)).

Role consistency empowers bedside nurses to develop improved communication skills and builds personal confidence in their assessment skills through feedback and coaching opportunities with the RRT. During RRT activation, dedicated intensivists and pharmacists, respectively, support bedside nurses through efficient practices and effective interdisciplinary care, which leads to improved patient safety ([Feih, Peppard, & Katz, 2017](#); [Jung et al., 2016](#)). An example of supportive practice is to exercise a “post-code pause;” this activity provides a time for those involved in a RRT, including the bedside nurse, to acknowledge and validate concerns or feelings related to the emergency event ([Copeland & Liska, 2016](#), p. 59).

Standardizing a process for the post-code pause highlights the importance it has for staff cohesiveness and promotes organizational safety culture. Additionally, as an expected action following an event, bedside nurses feel less threatened or intimidated by the interdisciplinary team and experience validation of skills and competencies, thus improving collaborative relationships and combating self-doubt ([Copeland & Liska, 2016](#)).

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Efforts to augment bedside nurse competencies create an enhanced synergistic relationship to patient condition. Synergistic teams, such as those using the TeamSTEPPS® system, optimize patient outcomes through an evidence-based model focused on high-quality, effective teamwork principles and execution ([AHRQ, 2017a](#), n.p.). As an organizational initiative, patient safety is elevated through collaborative relationships and sustainable processes for effective team responses to a patient’s medical emergency.

Organizational Culture

Organizational safety culture, focused on standardized processes and early warning tool development, guides nursing practice and improves patient outcomes ([Wakeam et al., 2014](#)). Standard processes and tools reduce barriers affecting patient care and promote transparency through a shared culture of safety. Development of early warning systems and tools to risk-stratify potential patients are important; however, research cautions the use of the tools independent of clinical judgment ([White et al., 2015](#)). The use of EBP guidelines and clinical protocols will support bedside nurse decision-making and analytical thinking through algorithms aimed at improving patient outcomes and reducing costs ([Parker, 2014](#)). Policies to assess the supportive practice framework of healthcare organizations and subsequent ability to manage and/or mitigate patient risk are needed ([Stolldorf, 2008](#)). Enculturation of RRT within an organization indicates concerted efforts for bedside nurse empowerment, in turn strengthening relationships, improving nurse satisfaction, and delivering quality patient care ([Astroth et al., 2017](#); [Wakeam et al., 2014](#)).

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Increasing the organizational awareness of the RRT process, specifically the benefits to the bedside nurse and the goals of improved patient safety, increases the nurse activation and responsiveness rates of RRT ([Astroth et al., 2017](#)). An organizational culture that supports the initiation of RRT, coupled with the increased awareness, complements nurse confidence in skills and clinical judgment, creating synergy between the patient’s needs and the nurse’s competencies.

Conclusion

“Failure to rescue occurs when healthcare providers do not recognize signs and symptoms and subsequently fail to take appropriate action to stabilize the patients” ([Garvey, 2015](#), p. 145). In response to the IHI 2005, “Saving 100,000 Lives” campaign, healthcare organizations formed rapid response teams (RRT) to mitigate poor patient outcomes by bringing intensive care interventions to the medical-surgical patient ([Walston et al., 2016](#)). Timely recognition and activation of rapid response mechanisms requires prudent nursing care, evidenced by synergy between patient needs and nurse competencies ([Hardin & Hussey, 2003](#)). Left unbalanced, patient outcomes decline and nurse confidence diminishes.

Bedside nurses influence timely responses and life-saving interventions in the patient whose condition rapidly deteriorates. As discussed, synergistic imbalance is affected by several barriers. Improving recognition of early warning signs and improved clinical assessment allow for timely intervention. Tools and standardized

Bedside nurses influence timely responses and life-

criteria remove speculation about patient condition and support the expansion of bedside nurse clinical judgment ([Dobuzinsky, 2017](#)).

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Effective activation of the response team from novice, advanced beginner and competent nurses necessitates ongoing coaching, evaluation and feedback, as well as concurrent simulation activities to foster critical thinking skills. A highly functional RRT can improve patient outcomes if the clinical deterioration is arrested through rapid assessment and intervention from the bedside nurse ([Angel et al., 2016](#)). Continuous quality improvement initiatives must focus on maintaining and growing bedside nurse competencies to decrease mortality rates and reduce healthcare costs ([Stolldorf, 2008](#)).

In essence, achievement of synergy between patient condition and bedside nurse competencies is met through a supportive, collaborative organization focused on a culture of safety, dynamic interdisciplinary relationships, and high-quality educational efforts. Collectively, these components remove barriers that impede the nurse's recognition and activation of a rapid response team for a deteriorating patient.

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Article published July 19, 2019

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