Title: Assessment of Decision-Making of Nurses who Activate the Rapid Response Team

Principal Investigator: Gary Bouley MS, RN
SWAT/RRT RN
Yale-New Haven Hospital
New Haven, CT.

Co-investigators: Carolyn Bowen RN
Elena Erskine MSN, RN
Virginia Hawthorne BSN, RN
Melissa McKay BSN, RN
Elizabeth Souza BSN, RN
Elaine Zarro BSN, RN
Janet Parkosewich DNSc, RN, FAHA
Wei Teng, PhD

Purpose and Rationale: Rapid response teams (RRTs) are activated to manage non-critical care patients experiencing deteriorating conditions and prevent cardiac/respiratory arrest. Nurses are often the first to recognize these changes and activate RRTs. The purpose was to examine nurses’ decision-making regarding RRT activation.

Research Questions
- How do nurses’ perceptions their ability to call the RRT?
- What triggers nurses’ decision to call the RRT?
- Who is involved in making the decision to call the RRT?
- What factors are associated with nurses making the decision to call the RRT? independently

Synthesis of Literature: RRTs were introduced into hospitals after study results indicated that patients develop signs/symptoms of clinical instability long before a cardiac/respiratory arrest occurs. The decision to call RRTs is complex one. Nurses are more likely to call RRTs independently if they are confident to do so without validation from others, have ≥3 years of experience, and are BSN prepared.

Methods/Procedures: This study used a cross-sectional design. A convenience sample of 245 medical-surgical nurses at a large university affiliated hospital completed a 30-item electronic survey. The study received institutional review board approval. Participants’ informed consent was indicated by their completion of the survey.

Results: On average, nurses were 34.4 years of age, practiced for 6.9 years, and made 2.8 RRT calls in the last 6 months. Most were female and worked full time, 68% were BSN prepared, 50% worked the day shift, and 35.5% were specialty certified.

Participants had strong perceptions about their ability to call RRT, as most agreed/strongly agreed that they were able to: assess for deteriorating conditions confidently; activate RRT without validation from others; communicate patient’s urgent needs to the medical team; and knew RRT criteria. Almost 75% felt education about deteriorating clinical conditions would be beneficial.
Common RRT triggers were deteriorating vital signs (77.8%), worsening signs/symptoms (70%), intuition/concern for patients (70%), delayed medical team response (64%), mental status changes (60%), and failure of medical team to communicate a plan (50%).

Only 53% of the participants indicated that they often/always make the decision to activate RRT independently, whereas, many involved charge nurses (67.3%) and/or asked more experienced nurses to assist with decision-making (54.7%).

In the analysis adjusted for 10 relevant demographic/clinical variables (logistic regression) nurses were 2.4 times more likely to call RRT independently when the medical team failed to communicate a plan, compared with those who did make a plan ($\beta=0.917$, 95% CI [1.171, 4.892]). Nurses using intuition as a trigger were 2.6 times more likely to call independently, compared with those who did not ($\beta=0.995$, 95% CI [1.11, 6.066]).

**Discussion/Application to Practice:**

Despite the fact that nurses felt confident with independent RRT decision-making, they often consulted other nurses. Activating RRT is an infrequent decision, which may create this need. Nurses should value their intuition and take action. Creative strategies are needed to enhance nurses’ RRT independent decision-making. Medical staff’s lack of responsiveness to nurses’ concerns is a powerful trigger for activating RRT independently. This result suggests the need for better communication between nurses and medical staff to elicit a satisfactory plan of care.