The Tipping Point

Factors that Influence Nursing Decisions about Calling a Rapid Response Team

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Background

- In 2007, Inova Mount Vernon Hospital instituted Rapid Response Teams (RRT) as part of our hospital's participation in the Institute for Healthcare Improvement's call for hospitals to "Save 100,000 Lives".

> ***When do I call the RRT?***
>
> **Call the RRT when your patient starts showing acute changes in vital signs or mental status, or when you have a "gut" feeling something is not right—call the RRT before the patient's condition deteriorates and requires a code.**
>
> **Always** call the RRT when the patient meets **any** of the following criteria:
> - ♦SBP < 90 or > 180
> - ♦HR < 50 or > 125
> - ♦RR < 10 or > 28
> - ♦O2 sat 89% or less despite oxygen
> - ♦Chest pain
> - ♦Change in LOC or altered mental status

- In 2008, Daniel Ampomah [1] and several colleagues did a research survey to assess the attitudes of nurses at our hospital about the RRTs[2] (Figure 1).
  - While the nurses expressed very positive attitudes towards the RRT, 51.8% said that they would still call the House Officer (on-call hospitalist) before calling the RRT.
  - Also, despite clear criteria for calling the RRT, 81.1% said that they would not call the RRT if their patient met RRT criteria but did not appear unwell.
- These inconsistencies in the survey responses intrigued us and so we decided to do a qualitative study to gain a deeper understanding of the issues.

[1] *An Assessment of Nurses' Attitudes towards Rapid Response Teams.* (2008) Daniel Ampomah, RN, MSN; Phillip Eaton, RN, MS, RT; Zewdensh Bryant, RN, MS; Rodica Sandor-Scoma, RN, MSHA, MD. (unpublished study)
[2] *Nurses' attitudes to a medical emergency team service in a teaching hospital.* (2006). Jones, D., Baldwin, I., McIntyre, T., Story, D., Mercer, I., Miglic, A., Goldsmith, D., & Bellomo, R. *Quality Safety Healthcare, 15,* 427-432. Survey used with the consent of the primary author.

Research Question & Study Design

- We chose a qualitative focus group methodology to allow us to explore the factors that influence nurses' decisions about when to call a physician versus calling the RRT.
- The research was approved through our system IRB & we obtained informed consent from the participants.
- The focus group consisted of 10 nurses who had previously called an RRT for one of their patients. The nurses came from medical, surgical, and rehabilitation units, & from day and night shifts.
- We started with open-ended questions and then followed up with questions related to the direction of the discussion. Semi-structured discussions allowed us to elicit information and explore nurses' critical thinking about how they make those decisions. Discussion continued until no new ideas or information was forthcoming.
- The focus group was taped & transcribed, and we both reviewed the transcript for accuracy.
- We both independently coded the information and extracted primary themes. We then compared our analyses to reach consensus on the themes.

"So it's a fine line, you know, do you call or don't you call? You have to really look at everything before you make a decision to call."

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Findings

Consultation & Validation

- The nurses always consult with another nurse before calling an RRT (except for clear-cut emergencies, e.g., HR 25, or BP 70 & pt unresponsive).
- The nurses reach consensus that this is the right decision before they call the RRT.

"Even though I have experience, I always like to call the charge nurses as a second eye."

Nursing Management

- In all cases discussed except emergencies, the nurses first try to independently manage the situation.
- Independent nursing actions include:
  - Increased surveillance of patient
  - Existing orders (ex. PRN medications)
  - Standard protocols (ex. post-op)
  - Consult with other nurses, especially charge nurse.
- Nurses may call physicians to notify them of a change in condition and ask for simple orders (ex. IV fluids for hypotension).
- Average reported time lapse from time of initial concern to RRT call: 30 minutes to 1 hour.
- Calling an RRT without first attempting to manage the patient's situation is almost seen as inappropriate and an abdication of nursing autonomy.

"It depends on your experience as a nurse and if you know that all of the interventions are all exhausted and the blood pressure is still (going) lower and the patient is deteriorating, then by all means, call rapid response."

Physician Factors

- Nurses are likely to make a decision to call or not call an RRT based on which physician or House Officer is caring for the patient, and that physician's history of responsiveness to calls.
- Nurses that work on units that have physician's or mid-level providers (NPs or PAs) accessible on the unit are likely to use this resource before calling an RRT.
- Nurses use RRT as a method of escalation, when they don't feel that they are getting the response they need from the physicians that they've contacted.

"…well, let's just call. What are we exactly waiting for, we're not getting the right answer."

Discussion and Conclusions

1. One of the key ideas that emerged in our analysis is that while there are clear criteria for calling an RRT, in truth, multiple factors go into the nurses' decision to call. These include the opinions of their colleagues obtained through consultation, whether they had exhausted their ability to independently manage the situation, and who the physicians involved are.
   - The *tipping point* occurs when any or all of the above factors combine with the clinical picture of the patient to become heavy enough to "tip" the nurse into calling an RRT.
2. While nurses do use the RRT criteria to help them evaluate their patient's decline, they are selective in their judgment of when to call the RRT. This runs counter to the original rationale—the RRT protocol was originally developed to avoid "failure to rescue" by mandating the situations in which to call an RRT.
   - However experience has shown that nurses are frequently able to manage patients who are experiencing symptoms that meet RRT criteria with orders that already exist, independent nursing actions, or through solicitation of simple orders from the physician.
3. Another key finding was the clear agreement on the collaborative aspect of nursing. Nurses reported seeking validation from their colleagues almost 100% of the time prior to calling an RRT.
   - The majority of the time, the nurses indicated that they consulted the charge nurse, offering more validation to the critical importance that this role plays in the management of patients on the unit.
   - Nurses also reported independently offering their opinion on critical patients when they were not in a charge role and when they had not been actively solicited for their opinion when they felt that it was time to call an RRT on a patient.

Implications for Future Research

"After an hour, we call rapid response. After the bolus and nothing has happened, we call."

- What is the average time interval between initial documented concern and time of RRT call?
- Does the time interval between the nurse's initial concern and the call for the RRT affect patient outcomes (LOS; time spent in critical care; type & frequency of interventions; mortality)?

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