The NC Rapid Response Team Partnership is a collaboration designed to successfully establish, implement, measure, evaluate, and sustain RRTs at 50 NC acute care hospitals through a learning collaborative model. Partners in this groundbreaking effort are the North Carolina Hospital Association and the NC Center for Hospital Quality and Patient Safety, The Carolinas Center for Medical Excellence, the North Carolina AHEC Program, Premier, and VHA Central Atlantic. The RRT Partnership is one of nine RRT initiatives nationwide which received funding from the Robert Wood Johnson Foundation.

The North Carolina Rapid Response Team Partnership is supported by a grant from the Robert Wood Johnson Foundation.

The Robert Wood Johnson Foundation, based in Princeton, N.J., is the nation’s largest philanthropy devoted exclusively to improving the health and health care for all Americans. As part of its efforts to improve the quality of care in the nation’s hospitals and to improve the work environments for nurses, the Robert Wood Johnson Foundation has awarded grants to nine organizations to increase the adoption of rapid response teams throughout hospital systems and networks.
NORTH CAROLINA RAPID RESPONSE TEAM PARTNERSHIP:
A LEARNING COLLABORATIVE

Rapid Response Team Tool Kit

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For the North Carolina Rapid Response Team Partnership:
• North Carolina Hospital Association (NCHA)
• The North Carolina Area Health Education Centers (NC AHEC)
• The Carolinas Center for Medical Excellence (CCME)
• Voluntary Hospitals of America (VHA Central Atlantic)
• Premier, Inc.

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Chapter 1
Introduction

The Problem

A 52 year old male underwent elective surgery. Post-operatively on the floor, he develops shortness of breath and an increased respiratory rate. He appears anxious and uncomfortable. The patient’s nurse first pages the responsible physician, then upon receiving no answer for 20 minutes, the on-call physician who calls back within 10 minutes. A chest X-ray is ordered. One hour later the nurse notifies the on-call physician that the chest X-ray was performed and read as normal, but that the patient is no better and has, in fact, started vomiting. The on-call physician offers to come in from home and assess the patient. The nurse is relieved, though still very concerned about this patient, as well as about her other patients who have not yet received their medications. Forty-five minutes later, over 2 hours after the initial concern was raised, the physician arrives, only to discover the patient is being coded in his room, having suffered a massive heart attack.

Scenarios like this one are far too common in our healthcare system. Approximately 7/1000 patients hospitalized on medical wards experience cardiopulmonary arrest, and mortality for these patients is very high - 91% in one study (Franklin, 1994). In most cases, nurses or physicians document concerning signs in the 6-8 hours prior to arrest. Pathophysiologic changes preceding arrest are primarily respiratory (38%), metabolic (11%), cardiac (9%), neurologic (6%), or multiple (27%) (Schein, 1990). This absence of preventing the progression to cardiopulmonary arrest is sometimes termed failure to rescue.

Outcomes can and do improve significantly if interventions are made early, either reversing the developing course, or transferring the patient earlier to the intensive care setting, thereby preventing the progression to cardiopulmonary resuscitation (Goldhill, 1999). Prompt assessment by personnel experienced in the evaluation and care of critically ill patients has been associated with a 50% reduction in non-ICU arrests (Buist, 2002), reduction in postoperative emergent ICU transfers (44%) and death (37%) (Bellomo, 2004), and reduction in arrest prior to ICU transfer (4% vs. 30%) (Goldhill, 1999).

The Solution

Rapid response teams (RRT), also called medical emergency teams (MET), refer to the establishment of a system to provide critical care expertise to the patient in the non-critical care setting. The team responds
to the call regarding a patient that is failing but has not (yet) experienced full cardiopulmonary arrest. The call generally comes from the floor nurse caring for the patient, but can come from anyone - hospital staff, a physician, or even, in some cases, the patient’s family or friends. Triggers for calling the RRT generally include predetermined criteria based on hemodynamic, respiratory, and neurological status, but also include simply “anytime a staff member is worried about the patient” (Simmonds, 2005). (See RRT Process Algorithm).

The team assesses the patient, helps to stabilize the patient and/or recommends transfer to a critical care setting, assists in communication with the responsible physician, and provides education and support. Direct benefits from recent studies have confirmed that effects can be dramatic, such as 16% decline in overall hospital mortality, 33% reduction in times the traditional “code team” was activated, and 55% reduction in codes outside of the ICU (Repasky, 2005). Additional benefits include increased nursing satisfaction, as nurses feel they have backup they did not previously have, as well as the opportunity to learn while working side by side with critical care nurses. Early experience also suggests that turnover rates among staff may be improved after RRT implementation.

Considerations

The team. Several different models have existed with similar results. Therefore, each hospital must determine the best approach for their rapid response team. Some models include:

- ICU RN
- ICU RN and Respiratory Therapist (RT)
- ICU RN, RT, and Physician (hospitalist/intensivist/resident)

Some RRTs use ICU RNs with simultaneous patient care responsibilities while they are “on call” for the RRT calls. Others use ICU RNs who are freed from patient care responsibilities. A model that may be considered is one with a dedicated RRT staff freed from other patient care responsibilities. This model eliminates the conflict of having to leave one’s own patient with other busy caregivers, and allows the ICU RN to approach the call without distraction. It also provides better support to the person activating the call, who realizes that he/she is not pulling an RN away from patient care activities. Some hospitals worry that they cannot afford to have people “sitting around all day”, but these hurdles can be overcome by either encouraging performance of administrative activities during this time, or even better yet, encouraging RRT nurses to round on the hospital floors, providing support to nurses, asking who are the sickest patients and how they can be of help (Krimsky). Teams that do not include a physician should strongly consider putting in place standing orders or protocols for patients meeting preset criteria, to allow for most expedited interventions. (See RRT Example Standing Orders).
Finally, when establishing an RRT, it is important to get team members with not only the right expertise, but also on the right interpersonal skills. Members must be 1) respectful of callers, 2) good communicators - with callers, patients, and responsible physicians, and 3) motivated to teach others and share their skills.

**Initiation of RRT.** In addition to “I am concerned about the patient”, establishment of generally agreed upon criteria for calling the RRT is recommended and helps support the process by backing up those who may feel reluctant to call. (See preset criteria used in prior studies in RRT Call Criteria table). Criteria for pediatrics that relate to specific hemodynamic and physiologic parameters must vary since the normal range of these parameters varies with age. It is beyond the scope of this Tool Kit to create criteria for varying ages. Some organizations, however, have kept criteria general in pediatrics such as “any concern about the patient” or “any concerning change in hemodynamic/physiologic parameters”. In addition, to communicating effectively with the RRT and with the physician, it is recommended that callers use a standard method, referred to as “SBAR” for “Situation-Background-Assessment-Recommendation”. For more information on this communication technique, see the Institute for Healthcare Improvement website at www.ihi.org for more information on the SBAR communication tool.

**Preparation for Pilot.** In preparing for implementation of an RRT, it is important to review codes that occur outside of the ICU, including the location and service where they most commonly occur, reasons for the codes (respiratory, cardiac), and the timeline from concern documented to arrest. (See Code Team Process diagram). This will help to determine the best unit for pilot testing the project, the members of RRT, and how to best encourage use of the RRT. Case stories of patients who proceeded to arrest despite early warning signs are also very powerful means of educating staff, physicians, and administrators about the importance of such a project.

**Celebration.** The aim for development of a rapid response team is to generate the best results from all of the work and resources used. The best results include not only significant reduction in mortality and codes outside of the ICU, but also in improved staff morale, team work, and retention. To generate the improved staff morale and teamwork, it is important to share the excitement that comes from a well run RRT. Sharing case examples of patients whose deterioration was reversed; the quotes from staff that activated an RRT; and reports of satisfaction of providing support as a member of an RRT will generate that excitement. Inviting feedback from patients, callers, and rapid response team members will ensure that we continually strive to provide better and safer care.
Introduction tools

- RRT Process Algorithm
- RRT Example Standing Orders
- RRT Call Criteria Table
- Code Team (Cardiopulmonary Arrest Team) Process

References


Franklin C and Mathew J. Developing strategies to prevent inhospital cardiac arrest: Analyzing responses of physicians and nurses in the hours before the event. Critical Care Medicine 1994;22:244-7.


The following algorithm can be used as a guide to develop your RRT process. Note there may be varying processes for adults versus pediatrics in your organization.

**RRT Process**
Below is an example of a typical process:
RAPID RESPONSE TEAM STANDING ORDERS

EXAMPLE

Date: __________________________  Time: __________________________

**Diagnostics**
- ABG
- CBC
- Na, K, Cl, HCO3, BUN, Cr, Glu, Mg
- PT/PTT
- Cardiac Enzymes and Troponin
- Accucheck-blood sugar
- STAT Portable Chest X ray
- EKG

**Respiratory/dyspnea**
- Racemic Epinephrine 0.5 mg via nebulizer x1
- Albuterol aerosol x1, repeat x1 if needed
- O2 via nasal cannula or face mask to keep oxygen saturations > 92%
- Lasix 40 mg IV once

**Change in mental status/seizures**
- Romazicon 0.2 mg IV over 30 seconds for known benzodiazepine administration with altered mental status
- Narcan 0.4 mg IV for known narcotic overdose. May repeat once.
- Valium 5 mg IV once for active seizures
- Dextrose 50 1 ampule IV push for blood sugar <50 and symptomatic hypoglycemia or altered mental status

**Chest pain**
- Nitroglycerin sublingual x1. May repeat x2 every 5 minutes. Hold for systolic B/P <90.

**Hypotension**
- NS 250 ml IV bolus for hypotension. May repeat two times.

Signature: ____________________________________________

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Rapid Response Team Call Criteria

Below is a comparison of RRT Call Criteria from sited references. Your RRT Project Team may reference this table as they determine the call criteria for your hospital. Use the last column to fill in your hospital’s criteria.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Concern</td>
<td>Worried</td>
<td>Worried</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heart Rate (HR)</td>
<td>&lt; 40 or &gt; 130</td>
<td>&lt; 40 or &gt; 140</td>
<td>&lt; 55 or ≥ 110*</td>
<td>&lt; 45 or &gt; 125</td>
<td></td>
</tr>
<tr>
<td>(beats/min)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Systolic Blood Pressure (Systolic B/P) (mmHg)</td>
<td>&lt; 90 mm Hg</td>
<td>&lt; 90 mm Hg</td>
<td>&lt; 90 mm Hg*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean Blood Pressure (B/P MAP)</td>
<td></td>
<td></td>
<td></td>
<td>&lt; 70 or &gt; 130</td>
<td></td>
</tr>
<tr>
<td>Respiratory Rate (RR) (breaths/minute)</td>
<td>&lt; 8 or &gt; 30</td>
<td>&lt; 5 or &gt; 36</td>
<td>&lt; 10 or ≥ 25*</td>
<td>&lt; 10 or &gt; 30</td>
<td></td>
</tr>
<tr>
<td>Oxygen Saturation (SaO2)</td>
<td>&lt; 90 %</td>
<td>&lt; 90 %</td>
<td>&lt; 90 %*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(despite supplemental FiO2)</td>
<td></td>
<td>(despite supplemental FiO2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental (Conscious) State</td>
<td>Acute changes</td>
<td>Sudden fall in the level of consciousness (Fall in the Glasgow coma stage of &gt; 2 points)</td>
<td>Not fully alert and orientated*</td>
<td>Abnormal status (confusion, restlessness or lethargy)</td>
<td></td>
</tr>
<tr>
<td>Urine Output (UO) (ml/4 hours)</td>
<td>&lt; 50</td>
<td></td>
<td>&lt; 100*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>Airway threatened, all respiratory arrest, cardiac arrest, repeated or prolonged seizures</td>
<td>Not fully alert and orientated and a RR ≥ 35 or HR ≥ 140</td>
<td>Chest pain</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Notify MET (RRT) when three or more of these physiologic indicators exist
Rapid Response Team Call Criteria References


Rapid Response Team (RRT)
Call Criteria

<table>
<thead>
<tr>
<th>Physiologic Indicator (Acute Changes)</th>
<th>LOW Parameter</th>
<th>HIGH Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concern</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heart Rate (HR)</td>
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<td></td>
</tr>
<tr>
<td>(beats/min)</td>
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<td></td>
</tr>
<tr>
<td>Systolic Blood Pressure (Systolic B/P) (mmHg)</td>
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<td></td>
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<tr>
<td>Mean Blood Pressure (B/P MAP)</td>
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<td></td>
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<tr>
<td>Respiratory Rate (RR)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(breaths/minute)</td>
<td></td>
<td></td>
</tr>
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<td>Oxygen Saturation (SaO2)</td>
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<tr>
<td>Urine Output (UO)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(ml/4 hours)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Code Team (Cardiopulmonary Arrest Team) Process

Directions: Understanding similar processes, such as the ‘code team’ (cardiopulmonary arrest team), that exist in your hospital will help as you design a rapid response team process. Circle the correct illustration that represents your ‘code team’ process and map the process across each column.

<table>
<thead>
<tr>
<th>Person Assessing Patient Need</th>
<th>Notification to Dispatch Code Team Method HOW</th>
<th>Person or System Receiving Call Receiver WHO</th>
<th>Notification of Code Team Method HOW</th>
<th>Code Team Members Responders WHO</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WHO</strong></td>
<td><strong>HOW</strong></td>
<td><strong>WHO</strong></td>
<td><strong>HOW</strong></td>
<td><strong>WHO</strong></td>
</tr>
<tr>
<td>[Image] Other (list)</td>
<td></td>
<td></td>
<td>[Image] Telephone</td>
<td>[Image] Intensivist</td>
</tr>
<tr>
<td>[Image] Other (list)</td>
<td></td>
<td></td>
<td>[Image] Other (list)</td>
<td>[Image] Other _____</td>
</tr>
</tbody>
</table>

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Contents of Tool Kit

This Tool Kit is designed to walk you through the steps to implement a rapid response team for your hospital. This Tool Kit provides a general overview of the issues surrounding failure to rescue and the rapid response team process. It offers suggestions for how to plan your project, design a process that works for your facility, develop and implement rapid response teams, and measure your improvements. This Tool Kit also provides tools to facilitate communication of your project and to educate the hospital staff, and provides sample policies and forms. The following chapters are included:

- **Chapter 2 — Communication & Education.** Chapter 2 provides information and several tools to assist you with educating and communicating your project to all the stakeholders (leadership, physicians, staff and patients and families).
- **Chapter 3 — Managing Your Project.** Chapter 3 uses a project management model to guide you through determining resources, schedules and setting milestones for a successful performance improvement project.
- **Chapter 4 — Pilot Project & Data Collection.** Chapter 4 provides information on conducting a pilot or a trial run of a new process and data collection.
  - **Pilot Project.** This section will help as you try new processes. The flow diagram will assist the team with brainstorming.
  - **Collecting Data.** This section will help you to collect meaningful project data. It will outline the different types of data to collect and the methods of collection. It will also provide the tools necessary to collect the data.
- **Chapter 5 — Spreading and Formalizing Changes.** This section explains how to spread and formalize your changes in your hospital.
Chapter 2
Communication & Education

Communication, early and frequently, is essential to the success of any quality improvement project. It is for this reason that this chapter was placed at the beginning of the Tool Kit. Communication will need to include education on the problem and the solution, and must target a specific audience. This chapter is designed to guide your communication and education efforts to all involved. In addition, there are reminders throughout the Tool Kit to repeatedly communicate and educate others about rapid response teams and about your hospital’s experiences with them.

Engage Leadership

Leadership is paramount in setting and communicating the vision for the entire organization. John P. Kotter, a well-known author and Harvard business professor, wrote in his book *Leading Change* that “Leadership should estimate how much communication of the vision is needed, and then multiply that effort by a factor of ten” (Kotter, 1996). Therefore, early engagement of senior administrative and physician leadership is one of the most important determinants for project success.

The methods of communication and education can be verbal and or written and should be targeted to the administrative audience. It should convey a concise message outlining the cost of the problem (failure to rescue) and the solution (establishment of a rapid response team). When examining costs and benefits it is important to keep in mind the four sectors of the hospital’s business: financial, customer, learning and growth (employee development), and the internal business (mission, service or product). While all four quadrants of the hospital business are important from the leadership perspective, they have a greater perceived obligation to the financial aspects of the hospital business. Therefore, your message should be delivered with great emphasis on financial costs. Tools at the end of this chapter can assist you in communicating the message to the senior leadership.

The financial costs of establishing a rapid response team can be broken down into two parts. The first part is the project costs. These are the costs associated with establishing a team, running pilot projects to test and tweak the process, educating the various stakeholders, purchasing items that you may need to run the pilots, such wireless phones or pagers, and later, spreading and formalizing the process so it is incorporated into routine operations. Chapter 3 in this Tool Kit reviews in more depth the project costs and supplies a tool to aid in writing a proposal for these costs.
The second part of the financial costs associated with establishment of a rapid response team is the costs of on-going operation of the team. To determine these costs, you must have an understanding of how your team will operate. You can hypothesize what these costs may look like for your hospital based on how other teams function at similar hospitals. For example, you may determine that the team will need to devote 0.5 FTE ICU RN and ICU respiratory therapist based on the projected volume of calls. This cost should be annualized. In addition, you may need to add in the costs of devices, such as pagers or phones for each team member, if they were not already added into the project costs. These costs can be presented to the leadership as a proposed cost of operation. It is important, however, to emphasize to the senior leadership that these proposed costs may vary depending on the final tweaked process that the project team recommends.

To balance expenditure, it is necessary to examine the benefits. The data collected in Chapter 4 - Pilot Project and Data Collection of this Tool Kit can assist you. The codes per 1000 discharges, the percent codes outside the ICU, the acute care inpatient mortality and the percent of satisfied callers to the rapid response team can assist you in determining benefits of a rapid response team. Additionally, you can examine the length of stay in the ICU prior to the establishment of a rapid response team and after the establishment of a rapid response team. Some may argue that tying these indicators to financial costs is a stretch. However, the financial cost of care will be reduced if your process allows you to deliver better and more efficient care. In addition, early experience suggests that nursing satisfaction increases with the introduction of RRT, and therefore nursing turnover may be reduced. Until your team collects data for several months, however, documenting the benefits may be difficult. In the meantime, you may project the benefits by applying your hospital’s financial data to outcomes in published studies. (See the reference section in Chapter 1 - Introduction).

**Engage Physicians**

As with senior leadership engagement, physician engagement is very important to the success of your project. If there is a physician leader that is also a senior administrative leader that you previously engaged, it is recommended to ask her/him to champion this effort. In any case, identifying one or more physician leaders - either formal leaders or respected “thought leaders” - to champion the initiative will make your efforts much easier.

In targeting physicians, a concise message in many different formats and venues will be important. Most physicians in today’s environment are feeling overwhelmed. A message that conveys how rapid response teams will assist them in delivering great care to their patients should be emphasized. It will be important to deliver a balanced message that stresses that the aim of a rapid response team is not to question the
care that a physician is delivering, or to take over her/his responsibilities. Rather, the rapid response team is a safety net put in place to deliver immediate assessment and intervention. Assure the physicians that an important part of the rapid response team process is to notify the primary care physician of the patient’s deterioration and of the rapid response team call.

Sharing the outcome data, such as codes per 1000 discharges, the percent codes outside the ICU, the acute care inpatient mortality and the percent of satisfied callers to the rapid response team, can assist you in determining the benefits of a rapid response team. Until your hospital data is available, you may need to share study data with the physicians. Chapter 4 - Pilot Project and Data Collection will further explain how data is collected. Sharing individual stories of patients will, in many ways, be more effective at inspiring change in your physicians. It will also be important for physicians to be involved because they will need to help develop a standing order set for RRT, especially if there is not a physician on the rapid response team. Tools in this chapter can assist you with communicating and educating the physicians about rapid response teams.

Engage Staff

As with educating the senior leadership and physicians, communication with the staff is very important. The staff, like the physicians, will need to participate in process development. They are the keys to the success of the team, as they initiate most of the calls to the RRT, and respond to the calls as members of the rapid response team. A clear understanding of the purpose of the rapid response team and the services that they can provide will be very important. Techniques such as SBAR (Situation, Background, Assessment and Recommendations) are taught to ensure that expectations for clear concise messages between the staff and the rapid response team members are met (Institute for Healthcare Improvement). Utilization of senior leadership to communicate the message early on to the middle management will be crucial in delivering the staff message.

In targeting the message to staff you will need to keep in mind that they, like physicians, are inundated with tasks and responsibilities. Asking them to learn about a new program, let alone participate in a pilot project or development of the process, may seem too much for some. Therefore, the message to the staff will place a great emphasis on the enhancement of their work environment and care and service delivered to their patients. It will be important to deliver a balanced message that stresses the rapid response team aim is not to question the care that she/he is delivering, or to take over her/his responsibilities as the direct care provider. Rather the rapid response team is a safety net, put in place to deliver immediate assessment and intervention by those with critical care expertise. The rapid response team members’ role is to intervene, avoiding a worsening patient condition, an ICU admission or, worse yet, a full arrest or death. It is also important to communicate to the ICU staff that the volume of admissions to the ICU may
trend down. Studies can be shared with this group until outcome data becomes available. Once the outcome data (codes per 1000 discharges, the percent codes outside the ICU, the acute care inpatient mortality and the percent of satisfied callers) becomes available, even in the pilot group, it should be shared with all staff members. Printing your online run charts will assist you as you communicate your progress during the project. Chapter 4 - Pilot Project and Data Collection will further explain the collection of data. As with physicians, sharing specific patient examples (stories) can be a very powerful motivator.

Engage and Educate the Patients and Families

Hospitals that have well established rapid response teams may consider including the patients and their families in the process. Education and communication with patients and families will need to explain the purpose of the team, when to activate the team and how to activate the team. A sample brochure is included that may be used to teach patients and families about the rapid response team.

Frequent Ongoing Communication with All Audiences

To effectively lead change, we must communicate our message again and again and again. We may start to think that everyone already knows what we are going to say because we have shared it so many times before. According to Kotter in *Leading Change* “The most carefully crafted messages rarely sink deeply into the recipient’s consciousness after only one pronouncement. Our minds are too cluttered and any communication has to fight hundreds of other ideas for attention…effective information transferal almost always relies on repetition.” (Kotter, 1996)

Communication & Education tools

- RRT Communication Checklist
- RRT Leadership Presentation
- RRT Physician Presentation
- RRT Staff Presentation
- RRT Patient Family Call Brochure
- RRT Flyer
- RRT Newsletter
References


Communication and education, early and frequently throughout the project, is essential to success. It informs healthcare workers of why the effort is important, and invites participation. Listed below are key participants that should be included in the education and communication of this project. Those directly involved in the process, such as the nursing staff, unit manager, respiratory therapy and physicians, should have constant input regarding potential changes to the process and the effectiveness of those changes.

1. **Targeted Improvement Area (nursing unit or floor): Direct Care Providers**
   - Staff meeting agenda item (use the RRT Staff Presentation (ppt) in this Tool Kit)
   - Send newsletter (use the RRT Newsletter in this Tool Kit)
   - Place posters in targeted and high-traffic areas, such as nursing floors, lounges, dictation areas, restrooms, etc.

2. **Hospital wide: Staff and management of all disciplines throughout hospital**
   - Send newsletter (use the RRT Newsletter in this Tool Kit)
   - Place posters in targeted and high-traffic areas, such as nursing floors, lounges, dictation areas, restrooms, etc.
   - Encourage all groups affected to make project a standing agenda item

3. **Administrator: Director, VP, CEO**
   - Face-to-face meeting with senior leadership (use the RRT Leadership Presentation (ppt) in this Tool Kit)
   - Review newsletter (use the RRT Newsletter in this Tool Kit)
   - Encourage reporting to the Hospital Board the purpose of the project and your hospital's plan of participation; offer to present at a Hospital Board meeting

4. **Physicians: Involvement at all levels of the hospital is important to project success. Physicians should be encouraged to participate on the improvement team and communicate with peers.**
   - Send newsletter (use the RRT Physician Presentation (ppt) in this Tool Kit)
   - Place posters in high-traffic areas, such as nursing floors, lounges, physician lounges, medical information management and dictation areas
   - Other - group meetings (use the RRT Physician Presentation (ppt) in this Tool Kit)

**Success Tip:**
*Communication and education are key.*
Encourage all team members to share project information with their respective departments.
Rapid Response Teams: Saving Lives One Call at a Time

[RRT Physician Presentation]
General Hospital
100 Hospital Avenue
Hospital, USA

RRT

• What is the problem?
• What is the solution?
• How do we do this?

What is the Problem?

Failure to Rescue

Death of patient who has developed one or more of a specified list of complications.

• NUMERATOR - Patients who died out of those who developed any of the following potential complications.
• DENOMINATOR - Discharges with potential complications of care listed in failure to rescue definition (i.e. pneumonia, deep vein thrombosis/pulmonary embolism [DVT/PE], sepsis, acute renal failure, shock/cardiac arrest, or gastrointestinal [GI] hemorrhage/acute ulcer).

• www.ahrq.gov

Failure To Rescue Causal Components

• Failure to Plan
  – Assessments, Treatments, Goals

• Failure to Communicate
  – Patient to Staff, Staff to Staff, Staff to Physician

• Failure to Recognize Deteriorating Patient Condition


Clinical Instability Prior to Arrest

Studies

• 70% arrests with evidence of respiratory or altered mental status within eight hours (Schein, Chest, 1990).

• 66% abnormal signs and symptoms within six hours of arrest (Franklin, Crit Care Med, 1994).
What is the Solution?

Rapid Response Team

Early Intervention and Treatment for Deteriorating Patients

"Intervene when patients show the first signs of deterioration, rather than wait until they expire (code) to aggressively intervene"

RRT Outcomes

• 50% reduction in non-ICU arrests (Buist, BMJ, 2002)
• Reduction in arrest prior to ICU transfer (Goldhill, Anesthesia, 1999)
• Reduction in post-operative emergency ICU transfers and deaths (Bellomo, Crit Care Med, 2004)

Rapid Response Teams

• A 100,000 Lives Campaign Initiative
• Robert Wood Johnson Grant for NC Hospitals to Establish RRTs. NC Grant Partnership:
  • North Carolina Hospital Association (NCHA)
  • Area Health Education Networks (AHEC)
  • The Carolinas Center for Medical Excellence (CCME)
  • Voluntary Hospitals of America (VHA Central Atlantic)
  • Premier, Inc.
• Rapid Response Teams in 1,400 U.S. Hospitals (Modern Healthcare, Sept. 2005)

How Do We Do This?

Project Team

• Team members
  • Quality Improvement Professional
  • MD Champion
  • Staff Nurse (floor and/or ICU)
  • Unit Manager (floor and/or ICU)
  • Respiratory Therapist
Project Resources

- Project Team
  - Project Manager ~ 8 to 10 hrs/wk for first six wks
    ~ 24 to 36 hrs/month for remainder of project
  - Team Members ~ 1 to 4 hrs/wk for first six wks
    (depending on role)
    ~ 4 to 12 hrs/month for remainder of project
- Direct Staff
  - Dependent on number of pilot revisions, service variations and size of hospital

RRT Structure

- Models vary:
  - ICU RN
  - ICU RN and Respiratory Therapist
  - ICU RN, Respiratory Therapist and Intensivist
  - ICU RN, Respiratory Therapist and Resident
  - ICU RN, Respiratory Therapist and Hospitalist
  - ICU RN, Respiratory Therapist and Physician Assistant
- What will work for our Hospital?

RRT Call Criteria

- Common Clinical Call Criteria
  - Heart Rate
  - Respiratory Rate
  - Blood Pressure
  - Oxygen Saturation
  - Altered Mental Status
  - Worried
- Areas that May Require Special Call Criteria
  - Pediatrics, Hospice, etc.
- What will our Call Criteria Be?

RRT Resources

- Dedicated versus Non-Dedicated Team
  - Dependent on frequency of calls and duration of calls
- What will work for our hospital?

Project Time Line

- We realize you are busy and have limited time.
- We will do our best to minimize added work.
- RRT is not a substitute for the physician. Notifying the physician is a key step in the process.
- RRT is a safety net to provide rapid response in acute situation.
RRT Project Team will:

• Communicate Project Milestones
• Share Project Data
• Share Project Success Stories

Physician Support Requested

• Familiarize yourself with the RRT Process.
• Assist in development and approval of RRT Call Criteria.
• Assist in development and approval of Standing Orders.
• Endorse the Initiative.
• Give us feedback so that we make things better for your patients.
RRT Leadership Presentation

Rapid Response Teams: Saving Lives One Call at a Time

[RRT Leadership Presentation]
General Hospital
100 Hospital Avenue
Hospital, USA

What is the Problem?

Failure to Rescue

Death of patient who has developed one or more of a specified list of complications.

- NUMERATOR - Patients who died out of those who developed any of the following potential complications.
- DENOMINATOR - Discharges with potential complications of care listed in failure to rescue definition (i.e. pneumonia, deep vein thrombosis/pulmonary embolism [DVT/PE], sepsis, acute renal failure, shock/cardiac arrest, or gastrointestinal [GI] hemorrhage/acute ulcer).

- www.ahrq.gov

Failure To Rescue Causal Components

- Failure to Plan
  - Assessments, Treatments, Goals
- Failure to Communicate
  - Patient to Staff, Staff to Staff, Staff to Physician
- Failure to Recognize Deteriorating Patient Condition


Clinical Instability Prior to Arrest Studies

- 70% arrests with evidence of respiratory or altered mental status within eight hours (Schein, Chest, 1990).
- 66% abnormal signs and symptoms within six hours of arrest (Franklin, Crit Care Med, 1994).
What is the Solution?

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- What will work for our Hospital?

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- **Common Clinical Call Criteria**
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- **Areas that May Require Special Call Criteria**
  - Pediatrics, Hospice, etc.

- What will our Call Criteria Be?

RRT Resources

- Dedicated versus Non-Dedicated Team
  - Dependant on frequency of calls and duration of calls

- What will work for our hospital?

Project Time Line

Leadership Expectations from Project Team

- Communication of Project Milestones
- Sharing of Project Data
- Sharing of Project Success Stories
Leadership Support Requested

- Resources for Project Team (time to do project, communication and education tools)
- Communication of Initiative (to staff, Board)
- Prioritization Improvement Project
- Endorsement, back-up of initiative
Rapid Response Teams: Saving Lives One Call at a Time

[RRT Staff Presentation]
General Hospital
100 Hospital Avenue
Hospital, USA

RRT

• What is the problem?
• What is the solution?
• How do we do this?

What is the Problem?

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• What will work for our hospital?

Project Time Line

Staff & RRT

• We realize you are busy and have limited time.

• We will do our best to minimize added work.

• RRT is not a substitute for the bedside nurse, who remains a key player in process.

• RRT is a safety net to provide critical care expertise in acute situation.
RRT Project Team will:

• Communicate Project Milestones
• Share Project Data
• Share Project Success Stories

Staff Support Requested

• Familiarize yourself with the RRT Call Criteria.
• Call RRT when patient meets RRT Call Criteria.
• Endorse Initiative.
• Provide feedback.
At [Hospital Name] we are committed to delivering the best care to our patients. To do so we want to be as responsive as possible to our patients changing conditions, making this a safe place to receive your care. To assure that this commitment is always met for our patients, we have established a Rapid Response Team.

The Rapid Response Team brings critical care expertise to patients in the non-critical care areas. The Team has a system in place that immediately addresses a patient’s rapid deterioration with appropriate interventions.

The Rapid Response Team does not replace your doctor as a care provider, but it provides a safety net to assure that immediate response to your changing condition as your doctor is notified.

When to Call
If you notice a medical change in the patient and the patient’s health care team is not recognizing the concern.

How to Call
To call the Rapid Response Team, dial [5555] on the hospital telephone. The operator will ask for the patient’s name and room number, then alert the Rapid Response Team.

Remember here at [Hospital Name] we consider the patient and the patients’ loved ones important partners in care. Please let us know if you have any questions about our Rapid Response Team program.
RRT Flyer

[Hospital name here] is participating in a Rapid Response Team Project. We need YOUR support and participation to help establish our rapid response team.

Help Us Make Patient Care Safer

Did you know?

☑ 84% of patients had some change in behavior or complaint within 8 hours prior to arrest.
☑ 70% of the patients had deterioration in respiratory or mental functioning prior to arrest.
☑ 66% of patients had documented clinical deterioration within six hours of an arrest.
☑ Intervening earlier with critical care expertise can prevent a full arrest.

We need your help to establish a rapid response team process:

☑ To familiarize yourself with the RRT Call Criteria.
☑ To call the RRT whenever you think that your patients meet any of the RRT call criteria.
☑ Provide us with your suggestions and feedback.

For more information, contact [Project Team Member Name and Contact Info Here]
[Hospital Name] is working to make patient care safer.

[Name of hospital] has signed onto a new initiative to improve care and quality of life for their patients. The purpose of the North Carolina Rapid Response Team Partnership Learning Collaborative is to develop a rapid response team to provide early intervention and treatment for deteriorating patients. A rapid response team differs from a code team in that the assessment and intervention is at the first signs of patient deterioration with the rapid response team, not when the patient has arrested. A statewide project was started in the first week of April 2006 with a new NC partnership between the North Carolina Hospital Association, the North Carolina Area Health Education Centers, The Carolinas Center for Medical Excellence, the Voluntary Hospitals of America (VHA Central Atlantic), and Premier and is supported by a grant from the Robert Wood Johnson Foundation. This modified collaborative will finish in March 2007.

Studies have indicated that patients often exhibit signs and symptoms of physiological instability for a period of time prior to a cardiac arrest.

- 70% of patients show evidence of respiratory deterioration within eight hours of arrest. (Schein, 1990).
- 66% of patients show abnormal signs and symptoms within six hours of arrest. (Franklin, 1994).

Other studies have shown that there is a reduction in failure to rescue patients when hospitals have established a rapid response team.

- 50 % reduction in the number of arrests outside the ICU. (Buist, 2002).
- 26% reduction in inpatient deaths. (Bellomo, 2004).

Rapid response teams vary and depend on the hospital. The team can consist of an ICU nurse, a respiratory therapist and/or a physician. Call criteria are established and can include everything from a person being worried about the patient to very specific physiological criteria.

“In order to be successful, quality improvement must be a facility-wide effort, involving all levels of our staff,” said [name of hospital CEO or CNO]. “The quality improvement concept involves more than just a few people; it’s a philosophy that reflects what our patients and their families can expect when placing their trust in us.”

For more information, contact [name of project leader].


Franklin C and Mathew J. Developing strategies to prevent inhospital cardiac arrest: Analyzing responses of physicians and nurses in the hours before the event. Critical Care Medicine 1994;22:244-7.

Before you begin a performance improvement project, it is important to understand the basic tasks and milestones involved, and determine the resources available and the time frames that you are projecting. You will need to decide who will lead (manage) the project. You will need to engage senior administrative and physician leadership of your organization. This chapter is designed to guide you through your project planning stage.

As discussed in the previous chapter, communication and education are very important to your project. Engagement of the various stakeholders will be essential to your success. To communicate the vision, engage senior leadership by developing a well-defined plan that includes resource utilization, project scope and schedule.

### Determine Available Resources, Project Scope and Schedule

Two of the most important elements of an effective project are a clear plan to determine resources required and a realistic schedule. You may want to ask yourself the following questions:

- Who are the best people to work on this project?
- How many resources are available to complete this project and who within the hospital is available to work on this project?
- When do I need to have a rapid response team in place?

Please note, before you decide on a budget and the project’s scope, it is recommended that you read this entire tool kit since it outlines the tasks that need to be accomplished.

### Plan Your Project

Your project plan is unique to your facility. It is dependent on the services you provide and customers you serve. It is also dependent on your current systems, resources, size, culture and adaptability. All these factors determine the number of tests of change and how quickly the plan can be implemented. In the first six weeks of the project, you will educate and communicate with the leadership, understand the current “code blue” process, develop ideas to create the new rapid response team process, and perform two tests of change. The timeline below is a guideline to help plan the tasks that will need to be completed.
## Resources

**Form a Project Team**

Who are the best people to work the project team? The project team is vital to the success of your project. The project team is a group of individuals who are knowledgeable about current processes at your facility, are diverse in their professional roles (physician, respiratory therapist, nurse, etc.), and are diverse within their organizational roles (staff nurse, manager, administrator, etc.). To have a workable size group, you may choose individuals who can serve in more than one of these capacities. To ensure that the process

### RRT Project Planning Milestones

<table>
<thead>
<tr>
<th>RRT Project Planning Milestones</th>
<th>Week 1</th>
<th>Week 2</th>
<th>Week 3</th>
<th>Week 4</th>
<th>Week 5</th>
<th>Week 6</th>
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<tbody>
<tr>
<td><strong>Communication &amp; Education - Ch. 2</strong></td>
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<td>Engage leadership</td>
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<td>Initiate education and communication with targeted physicians</td>
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<td>Initiate education and communication with targeted staff</td>
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<td><strong>Managing Your Project - Ch. 3</strong></td>
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<tr>
<td>Determine available resources and schedule</td>
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<td>Form your project team - Determine team roles</td>
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<td>Set meetings</td>
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<tr>
<td>Determine where to find data</td>
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<tr>
<td>Communicate / Educate others</td>
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<td>✓</td>
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<td><strong>Pilot Project &amp; Data Collection - Ch. 4</strong></td>
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<td>Collect baseline assessment of current process</td>
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<tr>
<td>Select pilot or test area(s) (hospital floor or unit)</td>
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<td>Determine possible change ideas</td>
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<tr>
<td>Identify an RRT Structure</td>
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<tr>
<td>Establish calling criteria for the RRT</td>
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<td>Identify possible methods to call the RRT</td>
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<td>Create standardized documentation process</td>
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<td>Run test of change</td>
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<td>Evaluate test of change - Collect Data</td>
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<td>Re-run a test of change</td>
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<td>Communicate / Educate others</td>
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<td>Formalize process</td>
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</table>
can spread successfully in your organization, it is important to include representation from quality improvement or administration that will address the organization as a whole.

In addition to having diverse professionals on your team, you will want to identify the roles of the team members. This may be based on their skills inventories. Successful project teams have identified roles, such as a team leader or facilitator, a recorder and a meeting time keeper. Additionally, you may choose to assign a task based on profession or duties. An effective team will include representatives from every phase of the process, including nurses, respiratory therapists and physicians.

How many resources are available to work on this project and who is available to work on this project? To conduct a process improvement project effectively, involving team members that are diverse and most familiar with actual processes takes resources. Establishing a RRT for your hospital will be no different. Your project team members will more than likely have other responsibilities within the organization. It is important to have a clear understanding of expectations for project team members, including time commitment for each individual. This expectation of team members must be clearly communicated with them so they can adjust their other workloads appropriately. At a minimum, team members should commit to at least 2 to 4 hours a week to team tasks for the first six weeks of the project. The project manager or leader should expect to expend more time on the project than the other members of the team. The time commitment for this individual will greatly depend on the size and complexity of the hospital.

Getting team members to commit to the team is often difficult. Securing this commitment can be more appealing to the project team members if the project team has a well-defined goal and a finite end. The goal for this project is to establish and put into operation a RRT for your hospital. Some project teams may elect to take on the added responsibility of evaluating the RRT process. Some others may take members of the project team and ask that they provide on-going management of the RRT.

The Project Team’s Responsibilities
The project team is responsible for a variety of duties. Highlights of some of these project duties include:

- **Communication and Education** – Share in the task of education and communication of the project. Decide who is the best to educate and communicate with each staff group.
- **Planning** - Determine the scope of the project based on available resources and time line. Identify tasks to achieve milestones. Determine where to find data and set team meetings.
- **Pilot Project** - Establish where the pilot will be implemented. Gather initial baseline information. Brainstorm change ideas (RRT structure, calling criteria, methods for calling team, standard documentation tool). Test the rapid response team on a small pilot group. Collect data and evaluate the pilot process.
- **Spreading New Process** - Develop the spread plan, including continued education and communication.
- **Formalizing Process** - Assign responsibility to an individual(s) to formalize process in the organization.

At the end of this chapter, there are tools to help with recording skills inventories and assigning team roles and tasks.

**Team Meetings**

The project team meetings should be highly prioritized, uninterrupted time to brainstorm, discuss findings and determine a common direction. Some teams choose to do meetings electronically or over the telephone. Regardless of how you decide to conduct your regularly scheduled team meetings, you should use agreed-upon ground rules.

**Project Scope**

The project team will need to determine the project scope. Is the vision for all adult patients? Will that include the obstetric patients? How will the pediatric patients be handled? Do you plan to roll out to a particular service first, such as your surgical patients? These questions will need to be determined as you determine the project scope. Involving senior leadership in decisions such as these will help the project team navigate the project scope.

**Schedule**

*When do I need to have RRT established?* After your hospital has made a commitment to establish RRT, the project team’s aim should be to expedite this process. Creating a sense of urgency for the project will not only keep the momentum going, but will help facilitate the change process. During the first six weeks an intense effort should be made to accomplish the tasks in the project plan. The size of your hospital and its culture will greatly determine the time it takes to institute a change. Included are tools that contain a graphic representation of the project timeline. (See **Project Timeline** for guidance).

**Managing Your Project tools**

- RRT Proposal for Hospital Leadership
- RRT Develop a Project Team Form
- RRT Project Team Meetings Form
- Project Timeline
RRT Proposal for Hospital Leadership

To: Senior Leadership

From: Quality Improvement Director

Background: “Adverse events in the hospital associated with medical management are estimated to occur in 4 to 17% of hospital admissions. Further analyses of such events found that up to 70% of them were preventable” (Buist). Many studies have shown that most patients exhibit signs and symptoms of physiologic instability up to 6-8 hours prior to cardiac arrest. Failure to rescue, or failure to act on these symptoms, often leads to the death or adverse outcome for the patient. Currently, the code blue team is called when a patient has suffered a cardiac or respiratory arrest. The outcome for these patients can vary from several added days in the hospital, ICU admission or even death.

Proposed Solution: To prevent failure to rescue, development and implementation of a rapid response team (RRT) should be considered. RRT is a team that is immediately available to assist clinical care providers, and possibly patients and their families, in recognizing, responding to and reversing unanticipated and/or precipitous declines in patient health and stability. Hospitals with active, trained RRTs have documented significant reductions in non-ICU arrests, increases in patient survival following arrest, improvements in patient mortality rates, reductions in the number of codes measured against hospital discharges and improvements in clinical staff and patient satisfaction.

Project Plan: Upon leadership approval, a project team will be formed. The project team will consist of quality improvement staff, nursing staff, respiratory therapy staff and physicians. The team’s aims will be to work with frontline staff to:

- Determine the structure of the RRT
- Provide education and training for all staff
- Establish criteria for calling the RRT
- Identify method for calling the RRT
- Create a standardized process for documentation of the event
- Evaluate the RRT process
## Proposed Project Expenses

### Direct Expenses – Personnel

<table>
<thead>
<tr>
<th>Project Personnel</th>
<th>Project Role</th>
<th>Total Number of Hours (Weeks # 1–6 of Project)</th>
<th>Total Number of Hours (Weeks # 7–27 of Project)</th>
<th>Total Project Hours</th>
<th>Personnel Cost (Cost/Hour)</th>
<th>Projected Total Project Direct Costs (Personnel)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance Improvement Professional</td>
<td>Project Manager</td>
<td>A</td>
<td>B</td>
<td>A+B=C</td>
<td>D</td>
<td>CXD=E</td>
</tr>
<tr>
<td>Week 1-6 = 10 hours per week</td>
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<td></td>
<td>60</td>
<td>152</td>
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<td>Week 7-26= 8 hours per week</td>
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</tr>
<tr>
<td>Physician Champion</td>
<td>Team Member</td>
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<tr>
<td>Week 1-6 = _____ hours per week</td>
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<tr>
<td>Week 7-26= _____ hours per week</td>
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<tr>
<td>Staff Nurse</td>
<td>Team Member</td>
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<tr>
<td>Week 1-6 = _____ hours per week</td>
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<td>Week 7-26= _____ hours per week</td>
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<tr>
<td>Nurse Manager</td>
<td>Team Member</td>
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<td>Week 1-6 = _____ hours per week</td>
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<td>Week 7-26= _____ hours per week</td>
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<tr>
<td>Respiratory Therapist</td>
<td>Team Member</td>
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<td>Week 1-6 = _____ hours per week</td>
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<tr>
<td>‘Code Team’ Member (RN)</td>
<td>Team Member</td>
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<td>Week 1-6 = _____ hours per week</td>
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<td>Week 7-26= _____ hours per week</td>
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</table>

### Direct Expenses - Non-personnel

<table>
<thead>
<tr>
<th>Item</th>
<th>Number of Items</th>
<th>Cost per Item</th>
<th>Projected Total Project Direct Costs (Personnel)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper</td>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>Office Supplies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pager(s)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Posters</td>
<td></td>
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</tbody>
</table>
RRT Develop a Project Team Form

<table>
<thead>
<tr>
<th>Team Name:</th>
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<table>
<thead>
<tr>
<th>Team Purpose:</th>
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</table>

<table>
<thead>
<tr>
<th>Team Goal:</th>
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<tr>
<td></td>
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</tbody>
</table>

- **Recruit other staff members who are key to this project**
  - Think about your facility and the different units/floors or departments and how rapid response teams may apply.
  - Consider the possible process variations that exist throughout your hospital. Your facility may have units where different rapid response team call criteria may exist, for example a pediatric unit or a hospice type of unit. Take a process inventory for your facility.
  - If you have tried to initiate a rapid response team in your facility, think of the variation that may exist in adopting a rapid response team among types of personnel and their patients, for example surgery service patients versus medicine service patients.
  - Choose people to sit on your team who will be accountable to spread the process throughout your organization and ones specific to the floor where you will initiate the project.
  - Utilize the **Code Team (Cardiopulmonary Arrest Team) Process** (found in Chapter 1) diagram to assist you in understanding how a similar type of process may exist in your organization.
  - Your team should include people involved in every phase of the process. Consider possible process variations that occur on different shifts, such as nights and weekends.
  - Record this information in the provided table below:
<table>
<thead>
<tr>
<th>Name</th>
<th>Role or Title</th>
<th>Skill Inventory (^1)</th>
<th>Email</th>
<th>Telephone</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Respiratory Therapist</td>
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<td></td>
<td>Staff RN</td>
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<td></td>
<td>QI Coordinator</td>
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<td>MD</td>
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<tr>
<td></td>
<td>Unit Manager (ICU or ED)</td>
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<tr>
<td></td>
<td>Unit Manager (floor/unit/ward)</td>
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</tbody>
</table>

\(^1\) - i.e. facilitator for groups, authority within facility to make changes, able to communicate well with staff, data collection and/or analysis
RRT Project Team Meetings Form

- Set-up regular team meetings
  - Regular team meetings present opportunities to brainstorm, discuss ideas and make decisions. Meetings also ensure that all responsibilities and duties do not fall to one person.
    - Use contact information from list above to create an email list.
    - Use email list to set regular (at least twice a month) meeting times.
    - Keep meeting duration to no longer than one hour.
    - Establish a consistent meeting time, day and place.

These meetings will occur for the duration of the project and, subsequently, only as needed. While in-person meetings are encouraged, sometimes in a hospital setting these are difficult to schedule. You could use online meetings or telephone conference calls as other alternatives.

Meetings

- Frequency:
- Day:
- Time:
- Place:

- Establish team ground rules
  - In addition to meeting schedule the team should discuss:
    - Attendance expectations
    - Assignment completion expectations

Success Tip: Continue to monitor.

After project completion, facilities are encouraged to periodically monitor the progress of implemented interventions. Successful and sustainable interventions depend on constant evaluation of your process. A current quality improvement or safety committee that meets regularly may appropriately take on monitoring duties after the project has ended.
PROJECT TIMELINE

- **Project Planning & Pilot Project**: 4/06 - 5/06
- **Refine Pilot Process**: 5/06 - 6/06
- **Refine Process for Service Variation**: 6/06 - 7/06
- **Spread & Measure Effectiveness**: 7/06 - 8/06
- **Formalize Process**: 9/06 - 10/06

- **Incorporate into Regular Operations**
Chapter 4
Pilot Project & Data Collection

Project Location and Current Process

Your project team must determine on what hospital floor or unit to start the performance improvement project. There are two points to consider when choosing a pilot floor or unit. First, consider the receptiveness of the physicians and nursing staff on the floor. Do you have a physician champion who can support your project efforts with his or her patients and nursing staff? Secondly, consider reviewing codes that occur outside the ICU. Where do they most commonly occur? What service are the patients most commonly on? What was the reason for the code call? Speaking with the code team members and reviewing data will be of help in your decision on where to pilot our rapid response team. Use the Code Team (Cardiopulmonary Arrest Team) Process diagram found in the Introduction section of this Tool Kit to record the steps of your current process. When brainstorming for your RRT, compare the Code Team (Cardiopulmonary Arrest Team) Process diagram to the RRT Process Flow diagram found at the end of this chapter. And, remember, it is always best to begin your performance improvement project in one area and to work out the kinks before implementing hospital-wide.

Communicate Project to Others

As you think about choosing the location for your project, it is important to communicate early and frequently to ensure success. It informs healthcare workers of why the effort is important and invites participation. The responsibility for the communication of the project should be shared with the entire project team where each informs his or her respective group. Common communication methods are newsletters, posters in common areas, staff meeting agenda items, and face-to-face meetings.

Performance Improvement

Once you have determined your project plan, established a project team, selected the floor/unit and completed a baseline assessment of your current code process, you will need to conduct a pilot or a trial run based on the following principles:
1. Keep in mind your goal(s) as you begin to move forward. Staff members are often overwhelmed with their day-to-day activities as it is, and trying to change practice can be both difficult and frustrating. Keeping in mind the goals that you establish as a team can help get through challenging times. Concrete goals such as reducing codes outside of the ICU by 50% can be helpful.

2. Try out your new strategy several times before taking it hospital wide. In the past, new policies and procedures were created, and then introduced across an entire organization. This method often resulted in low staff morale, as workers at the frontline had little or no input into activities affecting them, and most importantly, the new procedures were inconsistently carried out. It is much more effective and engaging to start a new process small and work out the kinks before taking it to additional areas.

3. Monitor for progress carefully by a) eliciting feedback frequently and by b) measuring for effects (see Collecting Data below). Eliciting feedback creates both the opportunity and the perception of a commitment to identify the best possible strategy for your organization. A great deal can be learned even after just one or two RRT call experiences, so maintaining regular communication with the participants is essential. Finally, measurement is the only way to truly monitor the effects of your activities.

Collecting Data
As you begin to implement RRT on your pilot unit, you will need to collect ongoing data to understand the impact of your changes and to determine if additional changes are warranted. You will collect at least three types of data: hospital level, patient level and caller satisfaction level. The hospital level data are collected over the entire hospital and are similar to the measures that the Institute for Healthcare Improvement collects for the 100,000 Lives Campaign. The patient level data, also referred to as call level data, are collected for the specific call and contain patient data. The last data elements that you will need to collect are the caller satisfaction level data, which are collected after the rapid response team call by the person who initiated the call. Below you will find an in depth description of the measures and data that will be collected.

Collected Data Types
Hospital Level
At the hospital level, four key measures will be used to evaluate the effectiveness of your rapid response team. Your team may desire to establish numerical or qualitative goals for each of the measures. For example, a goal may be to reduce the percent of codes outside of the ICU by 25% within the first six months of rapid response team implementation.
**Hospital Level**

- **Codes per 1000 Discharges**
  
  \[
  \text{Total # Codes outside ED / Total # Discharges excluding stillbirths and deaths in ED} \times 1000
  \]

- **Percent of Codes Outside ICU**
  
  \[
  \frac{\text{Total # of Codes outside ED and ICU}}{\text{Total # Codes outside ED}} \times 100
  \]

- **Utilization of Rapid Response Team**
  
  Total # of calls to the Rapid Response Team

- **Acute Care Inpatient Mortality Rate**
  
  \[
  \frac{\text{Total # acute care inpatient deaths}}{\text{Total # Discharges excluding stillbirths and deaths in ED}} \times 100
  \]

**RRT Patient Level (Call Level)**

Information collected at the call/patient level by the RRT may be used both for purposes of documentation in the chart, and for data collection.

**RRT Patient Level (Call Level)**

<table>
<thead>
<tr>
<th>Call</th>
<th>Patient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who made the call to RRT</td>
<td>Primary reason for call</td>
</tr>
<tr>
<td>Location of call</td>
<td>Interventions performed</td>
</tr>
<tr>
<td>Time of call</td>
<td>Primary outcome of patient</td>
</tr>
<tr>
<td>Response time to call</td>
<td></td>
</tr>
</tbody>
</table>
RRT Caller Satisfaction Level

Data collected at the caller satisfaction level will be used to help evaluate how well the RRT was deployed and utilized from the perspective of the person who made the call. Additionally, this level looks at the interaction between the caller and RRT.

### RRT Caller Satisfaction Level

- **Percent of satisfied callers**
  
  \[
  \frac{\text{Total # satisfied callers to the RRT}}{\text{(Total # of calls to the RRT - Total # of non-responses to satisfaction question)}} \times 100
  \]

- Would you call the RRT again?
- Was the communication between the RRT and caller always professional?
- Did all participants treat you with respect during the RRT response?
- Did this provide you a valuable opportunity to learn?

Optional Data Types

The following will not be collected by the collaborative, but you may be interested in collecting these data if your hospital already has a RRT in place and is looking to further improve it.

### RRT Patient Family Satisfaction Level (Optional)

The purpose of collecting patient/family satisfaction level data is to ensure that your new process is meeting the needs of your patients and their families. You can record this on the provided RRT Patient Family Satisfaction Form provided at the end of this chapter. You may want to compile the data from this form on a monthly basis to look for information and trends to help improve your process.

### RRT Satisfaction Level (Optional)

Getting feedback from the members of your RRT is important to the success of the initiative. It keeps you informed of the opinions and feelings of the rapid response team members. This type of information, when compiled on a regular basis and analyzed, will help you make needed changes and adjustments to your RRT process. The RRT Satisfaction Form is provided at the end of this chapter will help you collect this necessary information.
Pilot Project & Data Collection tools

- RRT Process Flow diagram

Collected Data Types

- RRT Patient Call Form
- RRT Caller Satisfaction Form
- RRT Caller Satisfaction Data Collection Form
- RRT Measure Calculation Form

Optional Data Types

- RRT Patient Family Satisfaction Form
- RRT Satisfaction Form
Rapid Response Team (RRT) Process Flow

Directions: This flow diagram can assist the project team and pilot unit to design a rapid response team process for your hospital. After using the Code Call Process Flow diagram, use this Rapid Response Team Process Flow diagram to map out a process by circling the illustrations and drawing a line to connect each one in the columns. Additional copies should be made as you consider alternatives to your process.

<table>
<thead>
<tr>
<th>Person Assessing Patient Need Discoverer <strong>WHO</strong></th>
<th>Notification to Dispatch RRT <strong>Method HOW</strong></th>
<th>Person or System Receiving Call <strong>Receiver WHO</strong></th>
<th>Notification of RRT <strong>Method HOW</strong></th>
<th>RRT Members Responders <strong>WHO</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Family" /> <img src="image2" alt="Patient" /> <img src="image3" alt="Nurse" /> <img src="image4" alt="MD" /> <img src="image5" alt="Student" /> <img src="image6" alt="Respiratory Therapist" /> <img src="image7" alt="Ancillary Service Employee" /> <img src="image8" alt="Other (list) __________" /></td>
<td><img src="image9" alt="Telephone" /> <img src="image10" alt="Operator" /> <img src="image11" alt="In-room Call System Device" /> <img src="image12" alt="Other (list) __________" /></td>
<td><img src="image13" alt="Telephone" /> <img src="image14" alt="Operator" /> <img src="image15" alt="Supervisor" /> <img src="image16" alt=" Automated Computer" /> <img src="image17" alt="Other (list) __________" /></td>
<td><img src="image18" alt="Telephone" /> <img src="image19" alt="Operator" /> <img src="image20" alt="Automated Computer" /> <img src="image21" alt="PA System" /> <img src="image22" alt="Other (list) __________" /></td>
<td><img src="image23" alt="Respiratory Therapist" /> <img src="image24" alt="PHYSICIAN" /> <img src="image25" alt="Anesthesia" /> <img src="image26" alt="Hospitalist" /> <img src="image27" alt="Resident" /> <img src="image28" alt="Intensivist" /> <img src="image29" alt="Other _____" /></td>
</tr>
</tbody>
</table>
**RAPID RESPONSE TEAM PATIENT CALL LEVEL FORM**

### Call Information

<table>
<thead>
<tr>
<th>Date:</th>
<th>Location:</th>
</tr>
</thead>
<tbody>
<tr>
<td>_______</td>
<td>Rm # _____ Unit #. ______</td>
</tr>
</tbody>
</table>

- [ ] Primary Physician Notified: [___________ MD](#)
- Time: ______ By: [___________](#)

- [ ] AM
- [ ] PM

- [ ] 1:00
- [ ] 2:00
- [ ] 3:00
- [ ] 4:00
- [ ] 5:00
- [ ] 6:00
- [ ] 7:00
- [ ] 8:00
- [ ] 9:00
- [ ] 10:00
- [ ] 11:00
- [ ] 12:00

**RRT–Time (in minutes)**

- Call Initiated: _______ Arrived: _______ Event End: _______

### Patient Information

<table>
<thead>
<tr>
<th>Patient / Service Type:</th>
<th>[ ] Medicine</th>
<th>[ ] Surgery</th>
<th>[ ] Pediatric</th>
<th>[ ] OB</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ] Other: ______________</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

- [ ] DNR previously documented

**Primary reason for call: (Check only one)**

- Respiratory (Rate, SaO2)
- Heart Rate
- Blood Pressure
- Seizures
- Altered Mental Status
- Worried
- Other

**Specify Reason for Call:** ________________

**Background:**

________________________________________
________________________________________
________________________________________

**Situation:**

________________________________________
________________________________________
________________________________________
________________________________________

**Assessment:**

T _____ HR _____ RR _____ B/P _____ SaO2 _____

**Recommendations/Interventions:**

### Diagnostics

- ABG
- CXR
- EKG
- Glucose

### Airway/Breathing

- Repositioned
- Oral Airway
- Suction
- Nebulizer Treatment
- Intubate
- PPV (Bag/Mask)
- O2 Mask/Nasal

### Circulation

- IV Fluid Bolus
- Blood
- CPR
- Defibrillation

**Other Intervention/Medication**

- No Intervention

**Outcome:**

- Stayed in Room
- Transferred to ICU
- Progressed to full code
- DNR Status Clarified

**Other/Comments:** _____________________________________________________________________

**Signatures/Title:**

North Carolina Rapid Response Team Partnership © March 2006
RAPID RESPONSE TEAM CALLER SATISFACTION

Your opinion matters. Please take a few minutes to complete the survey below.

Your hospital has joined a North Carolina statewide project, funded in part by the Robert Wood Johnson Foundation® to assist hospitals in establishing and analyzing rapid response teams (RRT). It is important to gather information on newly implemented or existing processes to ensure that they meet the needs of the patients and all the participants.

Please complete all the fields on this form. **Find your hospital and the corresponding number on the reverse side of this form and fill this in the hospital ID number.** The data in this form will be kept confidential with all HIPPA regulations maintained. Please **send the original to your quality improvement department or their designee.** Thank you for your opinion.

**North Carolina Rapid Response Team Partnership:**
- North Carolina Hospital Association (NCHA)
- The North Carolina Area Health Education Centers (NC AHEC)
- The Carolinas Center for Medical Excellence (CCME)
- Voluntary Hospitals of America (VHA Central Atlantic)
- Premier, Inc.

**Caller Information**

<table>
<thead>
<tr>
<th>Date and Time of Call:</th>
<th>Location (unit/floor/ward):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date: _______________</td>
<td>Rm #_________ Unit #_______</td>
</tr>
<tr>
<td>Time: __________</td>
<td></td>
</tr>
</tbody>
</table>

**Did all participants treat you with respect during RRT response?**
- YES    NO Why?

**Was the communication between the RRT and caller always professional?**
- YES    NO Why?

**Did this provide you with a valuable opportunity to learn?**
- YES    NO Why?

**Would you call the Rapid Response Team again?**
- YES    UNCERTAIN    NO Why?

**Additional Comments/Suggestions:**
___________________________________________________________________________________
___________________________________________________________________________________
___________________________________________________________________________________

**Person Initiating Call:**
- Staff RN
- LPN
- CNA
- Chg RN/Supervisor
- Physician
- Respiratory Therapist
- Family/Patient
- Other: _______________

**Optional Signature/Title:**
___________________________________________________________________________________

North Carolina Rapid Response Team Partnership © March 2006
RRT Data Collection Form
Caller Satisfaction

Call Satisfaction Tracking for Month / Year ______/_____

<table>
<thead>
<tr>
<th>A Reference Number</th>
<th>B Day and Time of Call</th>
<th>C Location of Call</th>
<th>D Answer to: Would you call the Rapid Response Team again? (YES, NO, UNCERTAIN, or BLANK)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<tr>
<td>Reference Number</td>
<td>Day and Time of Call</td>
<td>Location of Call</td>
<td>Answer to: Would you call the Rapid Response Team again? (YES, NO, UNCERTAIN, or BLANK)</td>
</tr>
<tr>
<td>28</td>
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<td>45</td>
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</tbody>
</table>

If more calls occurred in the month, add additional sheets.

<table>
<thead>
<tr>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
</tr>
<tr>
<td>Total Number of Calls to the Rapid Response Team</td>
</tr>
<tr>
<td>Number of last call recorded in column A</td>
</tr>
</tbody>
</table>

Prepared By: _____________________________ Date: ________
## Additional Tracking Sheets for Caller Satisfaction

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference Number</td>
<td>Day and Time of Call</td>
<td>Location of Call</td>
<td>Answer to: <em>Would you call the Rapid Response Team again?</em> (YES, NO, UNCERTAIN, or BLANK)</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
RRT Measure Calculation Form

Measures for Month / Year _____/_____

<table>
<thead>
<tr>
<th>Monthly Administration Data to Collect</th>
</tr>
</thead>
<tbody>
<tr>
<td>V</td>
</tr>
<tr>
<td>Total Number of Codes Outside of ED</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Measures to Track</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measure</td>
</tr>
<tr>
<td>Measure 1: Codes per 1000 Discharges</td>
</tr>
<tr>
<td>Measure 2: Percent of Codes Outside ICU</td>
</tr>
<tr>
<td>Measure 3: Utilization of Rapid Response Team</td>
</tr>
<tr>
<td>Measure 4: Acute Care Inpatient Mortality Rate</td>
</tr>
<tr>
<td>Measure 5: Percent of Satisfied Callers to Rapid Response Team</td>
</tr>
</tbody>
</table>

** Letter references refer to the Summary columns on the Rapid Response Team Data Collection Form and the Monthly Administration Data to Collect from the above table.

Prepared By: ________________________________ Date: ____________
RAPID RESPONSE TEAM PATIENT FAMILY SATISFACTION FORM

Your opinion matters. It is important to gather information on newly implemented or existing processes to make sure that they are meeting the needs of our patients. Our Rapid Response Team (RRT) was developed to ensure that we are delivering the best care to you (or your loved one). These survey results will be kept confidential, aggregated and reported back to the hospital. Please take a few minutes to complete the survey below and mail this to:

RRT Satisfaction
Hospital XXXXX
1 Hospital Drive
Hospital Place, NC

Thank you, for your opinion.

**Patient/Family Satisfaction Information**

<table>
<thead>
<tr>
<th>Date of Call: _____________________________________________</th>
<th>Were you informed about the services provided by the RRT on admission?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>YES  NO</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How were you informed about the RRT Services?</th>
<th>Why did you call the RRT?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff RN, Physician, Brochure, Other: _____________________</td>
<td>There was a notable change in the medical condition of the patient and the health team was not recognizing the concern.</td>
</tr>
<tr>
<td></td>
<td>There was a breakdown in how care is being delivered (confusion over what needs to be done for the patient).</td>
</tr>
<tr>
<td></td>
<td>Other, Explain: __________________________________________________</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Would you call the RRT again if necessary?</th>
<th>Did the RRT meet your needs?</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES  NO, Why</td>
<td>YES  NO, Why</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Do you think this is a valuable service?</th>
<th>Would you like a hospital representative to contact you?</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES  NO</td>
<td>NO  YES</td>
</tr>
</tbody>
</table>

Name: ___________________________________________________
Address: _______________________________________________
Telephone Number: _______________________________________

Thank you again for your valuable input.
**RAPID RESPONSE TEAM SATISFACTION FORM**

Your opinion matters. It is important to gather information on newly implemented or existing processes to ensure that they meet the needs of the patients and all the participants. These survey results will be kept confidential, aggregated and reported back to your hospital. Please take a few minutes to complete the survey below and mail to:

RRT Satisfaction  
[Hospital Name]  
Performance Improvement

### RRT Member Information

<table>
<thead>
<tr>
<th>Date and Time of Call:</th>
<th>Location (unit/floor/ward):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date: _______________  Time: __________</td>
<td>Rm #__________ Unit #_______</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Did all participants treat you with respect during RRT response?</th>
<th>Was the communication between the RRT and caller always professional?</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES    NO Why?</td>
<td>YES    NO Why?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Did this provide with you with a valuable opportunity to teach?</th>
<th>Do you think that the call to the RRT was appropriate?</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES    NO Why?</td>
<td>YES    UNCERTAIN    NO Why?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Did you feel the floor staff assisted and was helpful during the call?</th>
<th>Did you feel that your other obligations (patients) were cared for in your absence?</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES    NO Why?</td>
<td>YES    NO Why?</td>
</tr>
</tbody>
</table>

**Additional Comments/Suggestions:**  
___________________________________________________________________________________
___________________________________________________________________________________

**RRT Member Answering Survey:**  
Respiratory Therapist  
Other: _______________

**RRT Member:**  
RN  
Physician

**Optional**  
Signature/Title:_________________________________________________________________

Thank you for your opinion.
SPREADING AND
FORMALIZING
Spreading and formalizing your changes is an important part of implementation of a new process. To achieve successful implementation of your rapid response team, it is necessary to spread the process throughout the organization. To ensure consistency, it is necessary to formalize the process.

**Spreading**

After you have tested your RRT on the pilot unit and made the appropriate adjustments, you are ready to spread your refined process. Spreading your process to different areas of the hospital will require a plan. The project team should decide the order in which to spread, who will be responsible for the spread, and the actual dates/times for implementation. Spread should occur on similar units first. Setting up a hospital unit or floor inventory will assist you with determining your spread order. Your inventory should include a listing of all the units or floors in your hospital and characteristics of those floors. See the example below, General Hospital Rapid Response Team Process Inventory.

<table>
<thead>
<tr>
<th>Unit Floor</th>
<th># Bed</th>
<th>Similar Unit</th>
<th>Service Type</th>
<th>Nurses Commonly Float</th>
<th># 1 Admitting MD</th>
<th>Respiratory Therapist</th>
<th>Nurse Mgr</th>
<th>Spread Order</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 East</td>
<td>24</td>
<td>3 East</td>
<td>Medicine</td>
<td>3 East Brown</td>
<td>Hall</td>
<td>Harvey</td>
<td>Pilot</td>
<td></td>
</tr>
<tr>
<td>3 West</td>
<td>32</td>
<td>3 East</td>
<td>Surgery</td>
<td>4 East + 3 East Smith</td>
<td>Banks</td>
<td>Roberts</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>ICU</td>
<td>6</td>
<td>SICU</td>
<td>ICU</td>
<td>SICU Doe</td>
<td>Hall</td>
<td>Nurse</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>5 East</td>
<td>32</td>
<td>4 East</td>
<td>Pediatrics</td>
<td>none Goss</td>
<td>Peters</td>
<td>Scott</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>3 East</td>
<td>24</td>
<td>4 East</td>
<td>Med/Surg</td>
<td>4 East Brown</td>
<td>Hall</td>
<td>Williams</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>SICU</td>
<td>6</td>
<td>CCU</td>
<td>ICU</td>
<td>CCU Smith</td>
<td>Pill</td>
<td>Edwards</td>
<td>N/A</td>
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</tbody>
</table>

As you introduce the process to the new unit or floor, you will need to educate the staff and solicit feedback. At the end of this chapter, the **Spread Process Checklist** and **RRT Process Inventory** will assist you with planning your spread.
Formalizing

The final step to ensure that your process will be consistently and widely used is to write or revise your existing policies and procedures. Your processes should outline the RRT trigger, activities in your organization, and the roles and responsibilities of staff. You will need to provide ongoing education of the process for new staff members. You will also need to hold existing staff accountable for the new process by incorporating this into yearly competency training and performance evaluations. Lastly, you will need to continue to monitor the effectiveness of the new process through ongoing data collection. These steps will assist you with formalizing your process. At the end of this chapter, the Formalize New Process of Care form and the RRT Example Policy & Procedure will assist you with formalizing your RRT process.

Communicate Project to Others

- Spreading
  - Meet with leadership and medical executive committee
  - Meet with departments affected the most
  - Send newsletters, post posters

- Formalizing
  - Post permanent reminders of the new process
  - Communicate success of the new process

Spreading & Formalizing tools

- Spread Process Checklist
- RRT Process Inventory
- Formalize New Process of Care
- RRT Example Policy & Procedure
RRT Spread Process Check List

Spread process to similar types of nursing units/floors. Request an evaluation of the process.

- Educate widely on findings of test (e.g., display graphs from the monitoring tool).

<table>
<thead>
<tr>
<th>√ Check</th>
<th>TASK</th>
<th>PERSON RESPONSIBLE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Face-to-face meeting with administrator</td>
<td></td>
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<td></td>
<td>Face-to-face meeting with physician champion</td>
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<tr>
<td></td>
<td>Schedule meetings with large groups (physicians, departments most affected)</td>
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<tr>
<td></td>
<td>Report to board/executive committee</td>
<td></td>
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<td></td>
<td>Team members report back to respective groups and committees</td>
<td></td>
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<tr>
<td></td>
<td>Update posters</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Send newsletter update hospital wide</td>
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<td></td>
<td>Elicit ongoing feedback from all staff affected</td>
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</tr>
</tbody>
</table>

Set start date for educating and initiating the new process to additional nursing units/floors.

<table>
<thead>
<tr>
<th>DATE</th>
<th>NURSING UNIT/FLOOR</th>
<th>PERSON RESPONSIBLE</th>
</tr>
</thead>
</table>

Success Tip: Remember to continue to monitor!

After project completion, facilities are encouraged to periodically monitor the progress of implemented interventions. Successful and sustainable interventions depend on constant evaluation of your process. A current quality improvement or safety committee that meets regularly could assume monitoring duties after the project has ended.
RRT Process Inventory

[Hospital Name] Rapid Response Team Process Inventory

Date:

<table>
<thead>
<tr>
<th>Unit Floor</th>
<th># Bed</th>
<th>Similar Unit</th>
<th>Service Type</th>
<th>Nurses Commonly Float</th>
<th># 1 Admitting MD</th>
<th>Respiratory Therapist</th>
<th>Nurse Mgr</th>
<th>Spread Order</th>
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</tbody>
</table>
Formalize New Process of Care

- Write or revise policies/procedures.
- Remove all evidence of old processes. Make it difficult to do things the 'old way'.
- Make the new standard part of performance evaluations.
- Post permanent reminders of the new process.
- Continue monitoring effectiveness of the process.
- Communicate success of new process.
- Reward successes, efforts of staff:

<table>
<thead>
<tr>
<th>✓ Check</th>
<th>TASK</th>
<th>PERSON RESPONSIBLE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Food/party</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Recognition of key areas and staff</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Token gifts</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Letters to supervisors/administration</td>
<td></td>
</tr>
</tbody>
</table>
TITLE: RAPID RESPONSE TEAM (RRT)

PURPOSE: To bring a trained clinical team to a patient at the first signs of deterioration to prevent more serious consequences.

SCOPE: A Rapid Response Teams will be available for all inpatients in our hospital.

ROLES and RESPONSIBILITIES:
The each staff member will have a responsibility to the rapid response team. The staff who assess and initiate the team, the team who responds and the management staff who review and report data trends. The rapid response team members consist of the following:

<table>
<thead>
<tr>
<th>Personnel</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intensivist on duty in ICU</td>
<td></td>
</tr>
<tr>
<td>Assigned ICU RN</td>
<td></td>
</tr>
<tr>
<td>Respiratory Therapist assigned to the ICU</td>
<td></td>
</tr>
</tbody>
</table>

The description of the roles and responsibilities are listed below:

<table>
<thead>
<tr>
<th>Description</th>
<th>Personnel</th>
<th>Role</th>
</tr>
</thead>
</table>
| Discoverer – Person discovering patient condition is deteriorating | Floor nurses, ancillary staff | 1. The *discoverer* assesses the patient and determines if the RRT Call criteria is met.  
2. The *discoverer* initiates the call to rapid response team by dialing 5555 on any telephone in the hospital.  
3. The *discoverer* notifies the primary attending physician that the RRT has been called.  
4. The *discoverer* describes the patient’s situation, background, assessment and any recommendations to the RRT.  
5. The *discoverer* communicates in a calm, friendly manner to RRT.  
6. The *discoverer* has the patient’s medication |
administration record (MAR) readily available for the RRT on arrival.
7. The discoverer stays an involved member of the RRT upon their arrival, to assist with assessment and treatment of the patient.
8. Supplies the RRT may need will be readily available. (these may be on the code cart)

<table>
<thead>
<tr>
<th>Description</th>
<th>Personnel</th>
<th>Role</th>
</tr>
</thead>
</table>
| Rapid Response Team (RRT) Members | Intensivist ICU RN Respiratory Therapist | 1. The members of the RRT have advanced training in ACLS.  
2. The members of the RRT have a daily assignment that has the ability to be adsorbed by other staff members when RRT calls are made. (note if the condition of their daily assignment changes and cannot be absorbed by others than they must notify the supervisor (charge RN) that their assignment must change).  
3. The members of the RRT responds to all calls within 5 minutes  
4. The members of the RRT communicate with caller to understand the situation, background, assessment and recommendations.  
5. The members of the RRT communicate in a calm friendly manner to caller. |
| RRT Manager     | ICU Manager                    | The RRT Manager:  
1. Assures that there is proper ICU staffing to accommodate the RRT assignment. (Guidelines for staffing for this should be based on the average number of calls and the duration of these calls per day * note there maybe an increase volume of calls on off shifts.)  
2. Evaluates (analyzes) RRT calls, both patient call data and caller satisfaction  
3. Communicates trends to the administrative personnel |

PROCEDURE:

Detailed Guidelines for Rapid Response Team Calls:

Call Method:

1. The discoverer dials 5555 on any hospital telephone.
2. The hospital operator will immediately page on the numeric pager the intensivist, the assigned ICU RN and the assigned respiratory therapist. She will also overhead page RRT to the building and the room number. This overhead page will be done twice.
3. The RRT members will report to the room number.
### RRT CALL CRITERIA:

<table>
<thead>
<tr>
<th>Call Indicator</th>
<th>Low Parameter</th>
<th>High Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff Concern</td>
<td>Any concern the staff member may have that does not fit into the physiological parameters listed below</td>
<td></td>
</tr>
<tr>
<td>Heart Rate (HR)</td>
<td>&lt;40</td>
<td>&gt;130</td>
</tr>
<tr>
<td>(beats/min)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Systolic Blood Pressure (Systolic B/P) (mmHg)</td>
<td>&lt;90 mm Hg</td>
<td></td>
</tr>
<tr>
<td>Respiratory Rate (RR)</td>
<td>&lt;8</td>
<td>&gt;30</td>
</tr>
<tr>
<td>(breaths minute)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental Status</td>
<td>Any acute alteration</td>
<td></td>
</tr>
</tbody>
</table>