Initiating a Rapid Response Team

Trials and Tribulations!
<table>
<thead>
<tr>
<th>Facility Location</th>
<th>Hagerstown, MD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>320 bed</td>
</tr>
<tr>
<td>Programs/Services</td>
<td>Emergency Services, Critical Care, Med/ Surg, PCU, Cardiac Cath Lab, Radiology, Outpatient Lab services, Family Birthing Center, Cardiac Rehab Program, CHF Program, Interventional Radiology</td>
</tr>
<tr>
<td>History</td>
<td>Over 100 yrs old</td>
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Implementation Team Members

- Multidisciplinary Team
  - Nursing
  - Quality Management
  - Respiratory
  - Communications
  - Physicians
  - Pharmacy
Timeline

• October 2005
  – Initial meetings
  – Development of Action Plan
  – Determination of Measures of Success
  – Development of Team Characteristics
  – Determination of Support Measures
Preplanning

• Action Plan
  – Development of processes

• FMEA
  – Determination of process failures prior to implementation

• PDSA
  – Maintenance of rapid cycle change
<table>
<thead>
<tr>
<th>ITEM</th>
<th>ACTION</th>
<th>DUE DATE</th>
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</table>
| Presentation             | 1. Introduction of Plan to Resource staff  
                          | 2. Introduction of Plan to Critical Care staff  
                          | 3. Introduction of Plan to PCU staff  
                          | 4. Presentation of action plan to monthly peer to peer MD meeting | 11/14/05  
                          |                             | By Dec staff mtg            |
|                         |                                                                         | 11/28                         |
|                         |                                                                         | 11/17                         |
| Education                | 1. Develop scenarios for Resource staff  
                          | 2. Develop scenarios for PCU staff  
                          | 3. Train Resource staff  
                          | 4. Train PCU staff  
                          | 5. Training of Resp. staff | 11/14/05  
                          |                             | 12/5/05                      |
|                         |                                                                         | Week of 11/28                 |
|                         |                                                                         | 12/5-12/23                    |
|                         |                                                                         | By 12/23                      |
| Data collection          | Development of data collection tool  
                          | Data collection at time of RRT calls | 11/28 ongoing               |
| Meet and Greet with RNs and MDs | Meeting of staff involved with RRT | Set up 12/20                 |
| Pre-Pilot                | Gear Up Week!                                                          | Week of 1/2/06                |
| Pilot                    | Unit-PCU from 1/9/05 to 3/31/05                                           | 1/9/06                        |
Key Elements

- Communication
  - Staff
  - Ancillary Departments
  - Physicians
  - Hospital Management
  - Senior Management

- GET THE WORD OUT THERE!!!!!!
Key Elements

• Education
  - Critical Care Staff
  - Respiratory Therapists
  - Hospitalists
  - Pilot Unit
  - Senior Management
  - Physicians
• **Staff Pocket Cards**

**Criteria for calling RRT**
- Acute change in heart rate < 40 or > 130 bpm.
- Acute change in systolic BP < 90 or > 180mmHg.
- Acute change in RR < 8 or > 28 per minutes.
- Acute change in SaO2 < 90% despite oxygen.
- Acute change in consciousness or cognition, or seizures.
- Acute change in urine output < 50ml in 4 hours.
- Staff is worried about the patient - > “They just don’t look right”.

**Expectations of Those Utilizing RRT**
- Be prepared to give concise information, with chart in hand. Including latest lab results.
- Assuring emergency equipment and supplies are available.
- Remaining present to assist RRT.
- Contact primary physician.
- Follow-up assessments, documentation, report to receiving nurse if patient is transferred.
- “Never leave your wingman”

**To call RRT:** Dial 8122 - > Give your unit and the phone extension to the patient’s room.
Education

• Role of the Respiratory Care Department on the RRT
  - Assess respiratory status and consult with other team members
  - Draw and analyze arterial blood sample as needed
  - Select device and apply/adjust oxygen therapy as needed
  - Administer one dose of albuterol vial medicated aerosol as indicated
  - Maintain patent airway as indicated (including ET intubation)
  - Provide assisted ventilation as needed

Respiratory Therapist Attributes:
  - Demonstrated competency in critical respiratory care
  - Able to communicate effectively with other team members
• SBAR
  – Purpose
    • What is it?
    – Consistent form of communication that enables the caregiver to provide clear concise information about the patient.
  – Expectation
    • When to use it?
    – During RRT
    – When giving report to next caregiver
    – When calling Physician
Key Elements

• Data Collection
  – Recognition of core measures
  – Development of additional measures
  – Development of Event Record
  – Development of Surveys

• Data Assessment
  Evaluation of RRT calls
  Evaluation of codes
# Data Collection

## Event Documentation Tool

**Date:** _________________________  **Room # / Location:** __________________________

**Time Called:** ________________  **Arrival Time:** ________________  **Event Ended:** ________________

### Primary MD Called:  Y or  N  **Time:** ________________  **Call Returned:** ________________

**Primary Reason for Call:**

- [ ] Staff concerned / worried
- Specify: ___________________________
- [ ] HR less than 40
- [ ] SBP less than 90mmHg
- [ ] RR less than 8
- [ ] SpO2 less than 90%
- [ ] Acute Significant Bleed
- [ ] Failure to respond to tx

**Situation:**

### Staff concerned / worried

Specify: ___________________________

### HR less than 40

Specify: ___________________________

### SBP less than 90mmHg

Specify: ___________________________

### RR less than 8

Specify: ___________________________

### SpO2 less than 90%

Specify: ___________________________

### Acute Significant Bleed

Specify: ___________________________

### Failure to respond to tx

Specify: ___________________________

**Recommendations / Interventions:**

- [ ] Airway / Breathing
- [ ] Circulation

Specify: ___________________________

### Airway / Breathing

- [ ] Oral Airway
- [ ] Suctioned
- [ ] Nebulizer Treatment
- [ ] Intubated
- [ ] NPPV
- [ ] Bag Mask
- [ ] O2 Mask / Nasal
- [ ] ABG
- [ ] CXR
- [ ] No Intervention

### Circulation

- [ ] IV Fluid Bolus
- [ ] Blood
- [ ] EKG
- [ ] CPR
- [ ] Defibrillation
- [ ] Cardioversion
- [ ] No Intervention

**Background:**

Specify: ___________________________

**Assessment:**

- [ ] Temp: _____  BP: _____  HR: _____
- [ ] RR: _____  SpO2: _____  GCS: _____

**Other Interventions**

Specify: ___________________________

**Outcome:**

- [ ] Stayed in room
- [ ] Transferred to CC2
- [ ] Transferred to CC3
- [ ] Other: _______________

**Signature:**

- MD: ____________________________  Date: ____________  Follow-up Report: ____________________
- RN: ____________________________  Date: ____________  ___________________________________
- RT: ____________________________  Date: ____________  ___________________________________
- Signature: _______________  Date: ____________  Patient Label
Implementation

- Pilot Unit-PCU
- Pilot Education-November-December ’05
- Pilot-January-February ’06
- Data collection-outcomes to be measured and reported to staff on continuous basis
- Revisions utilizing Rapid cycle change
In Process

- Delmarva collaborative
  - March 2006 - December 2006
  - Learning sessions
  - Listserves
  - Networking
  - Implementation of frequent team meetings
In Process

• Changes Implemented:
  - Addressed issue of designated RT.
  - Clarification of data collection.
  - Addition of Med/Surg nurse to collaborative team.
  - Increased education to MedSurg Staff.
  - Feedback from critical care, respiratory and floor staff.
  - Initiation of SBAR.
Feedback

• **Surveys**
  • Given to RRT RN and Staff RN at time of event
  • Respiratory Survey done randomly

• **Recognition**
  • Saving Lives Report - # calls/unit
  • “Thank You for Helping Us to save ____ lives this month by calling RRT”
  • Implementation of “Essential Piece”

• **Recruitment**
  • Managers informing new candidates of program
Survey results

• From Nurses:
  - I felt that it was very helpful to have the RRT. I felt like the patient & family were satisfied also to see how quickly everyone responded.
  
  - They were great! Thanks! Thanks! Thanks! I was very apprehensive about this patient, and they really took the pressure away.
  
  - This is a helpful service. I had placed call to PMD prior to calling RRT. PMD on call did not call back until approx hour later, by then patient already settled in CC3 with appropriate care being delivered.
Respiratory Survey

- **Respiratory Care - RRT Survey Results**
  - Percentage of Respiratory Therapist who understand the RRT Concept - 80%.
  - Percentage of Respiratory Therapist who felt this was an important patient safety initiative - 92%.
  - Average response time to an RRT call, by the Respiratory Therapist - 95% responded within 1-5 minutes, 5% responded between 6-10 minutes.

- **Suggestions for Improvement**
  - Conduct inservices for staff, giving criteria for when to call the Rapid Response Team.

- **Negative Experiences**
  - How are RT’s to handle multiple STAT requests.
  - How are RT’s to handle multiple RRT calls, with insufficient staff to cover.
  - Too many staff in the patient room during the RRT calls.
  - Physician gave no direction, and left the patients room.
2006 SUMMARY OF RRT CALLS

- NUMBER OF CALLS 159
- AVERAGE RESPONSE TIME/ MINUTES 3.44
- AVERAGE LENGTH OF CALL/ MINUTES 35.4
- PRIMARY MD NOTIFIED 89%
- DISPOSITION OF PATIENT
  - TRANSFER TO HIGHER LEVEL OF CARE 69%
  - STAYED IN ROOM 31%
## COMPARISON OF CODES OUTSIDE OF CRITICAL CARE

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2006</th>
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<tbody>
<tr>
<td>PCU</td>
<td>15</td>
<td>13</td>
</tr>
<tr>
<td>MED/SURG</td>
<td>28</td>
<td>14</td>
</tr>
<tr>
<td>TOTAL</td>
<td>43</td>
<td>27</td>
</tr>
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- 14% decrease in codes
- 50% decrease in codes
- 38% TOTAL DECREASE IN CODES OUTSIDE OF CRITICAL CARE
Codes Outside of Critical Care

Inpatient Codes Outside of ICU
Yearly Comparison

[Graph showing the comparison of inpatient codes outside of ICU for the years 2005 and 2006, with data points for each month from January to December.]
Collaborative Calls Outside Critical Care

Percent of Codes Outside the ICU

- Delmarva Collaborative
- WCH
- All Collaborative Average

Baseline January February March April May June July August September October November December

Month

Percent
Collaborative Utilization of Team

Utilization of the Rapid Response Team

- Delmarva Collaborative
- WCH
- All Collaborative Average

Month
- Number of Calls

Baseline January February March April May June July August September October November December
Challenges

• Current staffing.
• Consistent application of SBAR tool for reporting.
• Consistent utilization of appropriate beds/units
Who you gonna call!

Rapid Response Team
The Code Busters

If one of your patients needs immediate attention, call the Rapid Response Team. When changes in a patient’s condition indicate a life-threatening problem, call the Rapid Response Team. When you call 8122, a team consisting of a critical care nurse, respiratory therapist, and a hospitalist will be dispatched to the patient’s room.

The Rapid Response Team is on call 24 hours, 7 days a week.

Make the call! Dial 8122

• Continue communication
• Next Steps
THANK YOU