Rapid Response Teams: Looking in the “Box” from the Outside

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Objectives:

- Identify the leading causes of serious sentinel events in hospitals today
- Discuss the importance of rapid response teams
- Identify individual system failures within a rapid response team utilizing the PDCA model
- Identify 4 additional initiatives to further reduce cardiopulmonary arrests and serious safety events on acute care units
This graph represents the root causes of the nearly 3000 Sentinel Events reported to JCAHO to date.
Patient Outcomes and Disposition
Non-Critical Areas July ’05- Nov’05

- 22 Cardiopulmonary arrests on the acute care units in 5 months
- 95% survived resuscitation (21/22)
- 90% transferred to PICU (20/22)
- 10% remained on floor
- 16% did not require PALS/ACLS (4/22)
What is a Rapid Response Team?

- Multidisciplinary team comprised of a Physician, ICU Nurse and respiratory therapist
- Bring critical care expertise to the patient bedside
- Assess the patient’s condition, recommend interventions, and transfer to the intensive care unit if required
Why do we need Rapid Response Teams?

- Increased number of cardiopulmonary arrests on acute care units
- Increased patient acuity on acute care units
- Overcrowding in the intensive care units
- Restriction of Resident hours
- Nursing shortage
PDCA Model

- **Plan**
  - Identify the problem
  - Develop ways to solve the identified problem

- **Do**
  - Implement the changes designed to solve the problems on a small or experimental scale first.

- **Check**
  - Assess whether the small scale or experimental changes are achieving the desired result
  - Ensure the quality of the output to identify and new system problems

- **Act**
  - Implement changes on a larger scale if the experiment is successful.
  - Involve other persons affected by the changes and whose cooperation you need to implement them on a larger scale
Multidisciplinary Team

- ICU Manager
- ICU Attending Physician
- ICU Fellow
- Director of Critical Care Nursing
- Coordinator of the RRT Team
- Social Work
- Case Management
- Nurse Educators

- Manager of HKU and MCU
- MUD of HKU and MCU
- Coordinator of Respiratory Nursing
- Acute Care Nurses
- Director of Respiratory Care
- CICU Manager
- Legal
- Respiratory Therapists
- QA/QI Representatives
Goals of the Rapid Response Team

- Educate caregivers on early detection of changes in patient condition
- Facilitate early intervention to achieve improved patient outcome and survivability
- Decrease number of Cardiopulmonary arrests
Who can activate a RRT?

- Nurse
- Interns or Resident
- Attending Physician
- Family Member
- Anyone!
RRT Activation Criteria

Concerning:
- Change in Heart Rate
- Change in O2 Saturation
- Change in Blood Pressure
- Change in Respiratory rate/effort
- Change in consciousness

Or

“The Patient Just Doesn’t look right”
Who responds to your call?

- ICU Fellow
- ICU Nurse
- ICU Respiratory Therapist
The Rapid Response Team Travels Lightly….

We made it Simple!!

✓ The only piece of equipment you need to bring is the I-stat

✓ Equipment/medication may be obtained from floor stock, Central Supply or Pharmacy

✓ In the event of an emergency activate a Code Blue and open the Code Cart
Phase I - Pilot

April 3, 2006 through June 2, 2006
Pilot Results:

• 10 RRT activations during the pilot
• 40% of the patients had no change in level of care
• The total number of code blue calls decreased on the pilot units by 75%
Lessons Learned from Pilot:

• A multidisciplinary approach expedited the project design.
• Education of all involved patient care providers and involved non-medical personnel is essential.
• Education in conjunction with SBAR would delay the hospital wide activation process.
• Failure to follow through with the page operator supervisor prior to go live resulted in several off shift page operators who were not aware of the pilot.
Phase II - Hospital wide activation

- Due to the significant decrease during the pilot the development committee chose to activate the team hospital wide within one month.
- Train the trainer was used for the hospital education.
- Power point presentation was provided to each unit educator or designee.
- RRT team flyers were disseminated throughout the hospital.
- Advertised in hospital newspaper, intranet site and in organizational meetings.
Hospital wide activation began

July 5, 2006
Family Activation

• What are we afraid of?
• What if it was your child deteriorating on the acute care unit?
• Who knows your child better than you?

Empower the family!!
Family activation of the RRT was initiated February 1, 2007

To date we have only had 3 family activated RRT
Cardio Pulmonary Arrests

Code Blue Acute Care in Patient
CAT Activations
Avg. DAILY CENSUS/100

Move to new patient care tower

Hospital-Wide Activation

Pilot began HKU, MCY, MCO

Dec-05 Mar-06 Jun-06 Sep-06 Dec-06 Mar-07 Jun-07 Sep-07 Dec-07 Mar-08 Jun-08

Per 1,000 Patient Days
Is the system designed to fail?

Can We Afford Failure?
RAPID RESPONSE TEAMS AS A BUILDING BLOCK FOR A SAFETY CULTURE

Outlook Measures
Serious Safety Event Rate
External Benchmark:
- National Registry of CPR
Evaluation of unplanned admissions to the ICU

Oversight
Pediatric Early Recognition Committee (PERC)

Process
Early Detection- PEWS
Early Escalation- RRT

Diagnostics
Web Based Adverse Event Reporting
Trigger tool
Patient Safety Climate Survey

www.dechildrens.com
Next steps:

- **Compliance tracking of PEWS scores Goal 100%**
  - Q4hour scoring compliance- 84%
  - Documentation of Appropriate reassessment- 80%
  - Appropriate notification/response documentation- 96%

- **Ramp up family activation education**
  - Get Well Network
  - Posters
  - Welcome Packs
  - Pre-hospitalization tours