RAPID RESPONSE CONTINUES TO SAVE LIVES

RRT INITIATION

- INOVA FAIRFAX HOSPITAL IS A 833 BED TERTIARY CARE LEVEL 1 TRAUMA CENTER IN NORTHERN VIRGINIA
- SERVICES PROVIDED BY INOVA FAIRFAX HOSPITAL INCLUDE WOMEN’S SERVICES, INOVA HEART AND VASCULAR INSTITUTE AND THE MAIN TOWER BUILDING HOUSING GENERAL MEDICAL/SURGICAL AND ONCOLOGY SERVICES
INTERNAL DATA REVIEW

- Inova Fairfax Hospital and Inova Heart and Vascular Institute evidences 61% of all medical surgical emergencies outside of the critical care environment.
- While 81% of these emergencies are successfully resuscitated, 56% do not survive the next 30 days

RAPID RESPONSE INITIATION

- IFH reviewed the evidence presented by the IHI as part of a task force comprised of physicians, nursing, respiratory and administration
- IFH had a desire to prevent a failure to rescue
- IFH wanted to improve the outcome and number of Medical Surgical Emergencies occurring housewide.
RAPID RESPONSE INITIATION

• The team is comprised of:

• House Physician
• Experienced Critical Care Nurse
• Experienced Critical Care Respiratory Therapist

RAPID RESPONSE TEAM INITIATION

• A policy and process were developed by the task force. A decision was made to pilot that process on only one unit.
• August, 2006 RRT went live on one unit-medical telemetry as a pilot
• 39 calls were received during this pilot phase and the process was refined
• RRT went live to the Adult Medical/Surgical Floors November 2006
• RRT went live to the Women’s Services Units March 2007
• RRT went live to the Heart and Vascular Institute August 2007
RAPID RESPONSE DATA

Disposition Following Rapid Response Call
2009

Inova Fairfax Hospital
Adult Rapid Response and Care Science Mortality
Adult MSET Committee Report
2009 Quarter 2

Adult Patient and MSET Long Term Survival
30 days or until discharge
Quarter 2 2009

![Chart showing Adult Patient and MSET Long Term Survival for Quarter 2 2009.]

- 17 MSET preceded by RR/SRN
- 33 MSET outside CC/OR not preceded by RR/SRN

- Expired %
- Long Term Survival %

RRT Preceding MSETs

- Number of MSETs
- RRT Escalated to MSET
- Number of RRT that did not escalate to MSET

(outside MIC, MSCU, ICU, MBCU, CCU, CVICU)

![Chart showing RRT Preceding MSETs over time from 2004 to 2009.]

- First Quarter 2004
- Second Quarter 2004
- Third Quarter 2004
- Fourth Quarter 2004
- First Quarter 2005
- Second Quarter 2005
- Third Quarter 2005
- Fourth Quarter 2005
- First Quarter 2006
- Second Quarter 2006
- Third Quarter 2006
- Fourth Quarter 2006
- First Quarter 2007
- Second Quarter 2007
- Third Quarter 2007
- Fourth Quarter 2007
- First Quarter 2008
- Second Quarter 2008
- Third Quarter 2008
- Fourth Quarter 2008
- First Quarter 2009

Number of MSETs

- 0
- 100
- 200
- 300
- 400

RRT Escalated to MSET

- 0
- 50
- 100
- 150
- 200

RRT Preceding MSETs

- 0
- 5
- 10
- 15
- 20

RRT Did Not Escalate to MSET

- 0
- 5
- 10
- 15
- 20

Number of RRT (outside MIC, MSCU, ICU, MBCU, CCU, CVICU)
RAPID RESPONSE TEAM

• Initially the team felt we could impact the outcome and number of Medical Surgical Emergencies (MSET) at IFH
• While we have not demonstrated a statistically significant impact to our number of MSET situations we have noted an improved outcome for patients where rapid response precedes the emergency

RAPID RESPONSE TEAM

• The team identified other issues hospital wide.
• The first was anecdotally reported by the nurses on the team and involved the administration of Narcan effectively on a number of patients
• A retrospective chart review was completed
DILAUDID/NARCAN DURING RRT CALLS

- Following retrospective chart review in December 2008, education and information was provided to the medical staff regarding findings
- A Medical Alert was distributed house wide to nursing staff and physicians regarding the use of Dilaudid with further education provided as to proper dosing and specific monitoring
RAPID RESPONSE TEAM

- Year end 2007 RRT nurses began noticing an increase in calls for patients within 24 hours of admission
- Retrospective chart audits were completed by nursing and physicians
- A number of cases were originating in the Emergency Department
- Sepsis was a predominant outcome
RAPID RESPONSE AND SEPSIS

- The hospital was already working on a Sepsis Protocol and had developed a work group surrounding this diagnosis based upon mortality statistics.
- We began screening all rapid response calls for sepsis beginning August 1, 2007.
- We went live with a Sepsis Response Team on October 1, 2008.
- We had 1193 Sepsis Response Calls between October 2008 and June 2009.
- 56% of those patients have ruled in for severe sepsis and placed onto an order set since developed for Early Goal Directed Therapy and resuscitation.
IFH Sepsis Mortality

RAPID RESPONSE EDUCATION

Comprised of 4 parts:
1. Annual hospital based competencies
2. Unit based annual competency
3. Monthly Nursing Grand Rounds
4. Nursing Peer Review
RAPID RESPONSE EDUCATION

Nurses in MSICU must have 2 years experienced in the unit prior to being considered for the RRT nurse role.

Once determined appropriate, the nurse will review the policy and demonstrate understanding of their role on the team.

The individual nurse will then be oriented to the role by the Management Coordinator. The shifts vary as they are based upon performance and independence seen during the orientation by the Management Coordinator.

RAPID RESPONSE EDUCATION

Nurse Peer Review

• Developed to respond to the ongoing need to teach a staff with varying degrees of experience in ICU the response necessary given different situations.
• Problematic or unique cases are chosen for review. These may be at the discretion of the Director, Management Coordinator or individual nurses.
• A team of RRT nurses will then review the case based upon established policies and procedures.
• All lessons learned are shared with the whole team.
• Grand Rounds is one vehicle utilized for education.
RAPID RESPONSE

• It is a valued tool at IFH for escalation of patient concerns and helps to facilitate communication and patient safety
• It has continued to demonstrate an ability to identify system and procedural issues that impact the delivery of patient care hospital wide
• RAPID RESPONSE CONTINUES TO SAVE LIVES!