The Administrative Limb: The Clinician’s View

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The value of Rapid Response Systems

- **Overview**
  - Critical safety failure to find and treat critically ill patients outside ICU
  - Institutional methodologies to improve patient safety
  - What is the role of the administrative limb
Rapid Response System Structure

Afferent Limb

- Event detection
- Trigger
- Urgent Un-met Patient Need

Efferent Limb

- MET/RRT/CCO
- Specialized resources
  - Cardiac Arrest Team
  - Trauma Team
  - Stroke Team

Crisis Resolved

Administration oversees all functions

Data collection and analysis for Process Improvement

Data acquisition point
Who is in the Administrative Limb?
What is the role of the Administrative Limb?

- The care and feeding of the entire Rapid Response System
What is the role of the Administrative Limb?

- Identify gaps in care and correct them.
- Identify costs, barriers, and benefits of process improvement.
- Identify alternative strategies to obtaining the better/same/similar outcomes at less cost*
Administrative Limb Roles

- Supervise clinical enterprise
  - Staffing allocations
  - Equipment purchases
  - Ensuring reliability of equipment
  - Coordinating work groups
  - Maintaining accountability for functions
- Strategic direction
Rapid Response System Structure

Afferent Limb

Event detection

Trigger

Urgent Un-met Patient Need

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MET/RRT/CCO

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Specialized resources

Cardiac Arrest Team

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# Decision Matrix for interventions

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RRS: yes or no
MET or RRT
Improved compliance with intermittent monitoring/Triggering the RRS
New defibrillators (standardized across hospital)
Continuous monitoring
Multiple Defibrillators

- Clinical issues
  - Failure rate 1/week
    - Local staff comfortable with own defibrillator but use it rarely
    - Visiting staff uncomfortable with variety and reliability of defibs
    - Plans and calls for back up defibrillator common
  - Units have higher priorities for capital
Cost Comparison

Maintain old defibs
- No capital expense
- Already in use:
  - Status quo
  - “No” training
  - “No” import new parts
  - “No” new processes
  - “No” measurable harm

Purchase new defibs
- Capital expense
- Culture change
- Educational needs
  - Physicians
  - Nurses
  - Biomed engineers
Rules

- Never make only a clinical argument to finance.
- Never make only a cost argument to a clinician.
- Priority for admin. is cost-benefit
- Priority for clinical is outcome
- Find all the costs, be imaginative.
## “Cost” Comparison

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<td>Capital expense</td>
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<tr>
<td>Maintain training of all staff in 9 defibrillators</td>
<td>Culture change</td>
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<tr>
<td>Maintain equipment stock for 9 defibs</td>
<td>Educational needs for 1 defib</td>
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<tr>
<td>Maintain stock of pads</td>
<td>Equipment variety decreased</td>
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<tr>
<td>Train staff for 9 defibs</td>
<td>Less repair time</td>
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<td>Post failures shop time</td>
<td>Less liability</td>
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<td>Liability risk</td>
<td>Staff satisfaction</td>
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<td>Band aid processes</td>
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# Continuous Monitoring

## Cost Benefits

- Fewer ICU admissions
- Fewer deaths
- Fewer patient transfers (0.5-1d LOS/tx)
- Decreased bed turnovers (1-2h/bed)
- Easier to move staff than move patient for acuity
- Potential satisfier

## Cost Detriments

- Hi capital expense
- Potential to increase nursing workload
- New operating expense for disposables
- Potential nurse dissatisfaction
  - Recruitment/retention
System issue: Matching Resources and Needs

- Resources = Needs: Efficient + good
- Resources < Needs: Efficient + bad
- Resources > Needs: Inefficient + good
Need a *System* Fix for Resources—Needs Mismatch

- Either move patients to resources

  Or

- Move resources to patients
Step 1: the Afferent Limb

- Find patients with critical mismatch between needs and resources
  - Intermittent monitoring
    - Staff
    - Technology
  - Continuous monitoring
Step 2: Provide resources reliably and efficiently

- Coordinated response of equipment and trained, designated, and available clinicians to provide care for any patient with sudden critical illness
Step 3: Recognize errors

- Obvious clinical errors
  - Medication error
  - Misdiagnosis
- Subtle clinical errors
  - Previously unrecognized interactions
- System errors
  - Transport
  - Isolation
Error Reduction
A practical decision: Focus on Crises

- Errors in care are so pervasive that errors with little consequence are dismissed.

On the other hand...
- The adverse consequences of errors more easily seen in the sick, and
- Life threatening events convince us of the need for change
Goal of a Rapid Response System: What reduction?
Resources

- www.rapidresponsesystem.com
  - All sessions at 2005 and 2006 meetings on line
  - May 10,11, 2010: Pitt: on line.
  - May 5,6, 2011: Cancun

- IHI
  - http://www.ihi.org

- Textbook:
  - www.springer.com
Resources

- JCR Journal of Quality & Patient Safety
- RRS: The stories