Creating a Healthy Work Environment
Using a Rapid Response System

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About Ochsner

• The setting for this project was a quaternary academic medical referral center in the Southern United States
• The preintervention survey period was Q3 2017.
• The post intervention survey period was Q3 2018.
Rapid Response Systems

• Rapid Response Systems have been promoted as a safety intervention for patient’s experiencing clinical deterioration.
  – Commonly published outcome measures for RRS include
    ๏ decreased rates of cardiac arrests outside ICU
    ๏ reduced unplanned transfers into ICU.
Rapid Response Systems

• Less commonly published outcomes include
  – expert clinical support provided by RRS to novice staff
  – prevention of adverse events
  – quality improvement opportunities discovered by RRS.
Project Purpose

- The purpose of this study was to
  - To measure staff perceptions of the Rapid Response Team ten years after its initial implementation of a consult service
  - To inform practice changes for implementation of a pilot 24/7 Rapid Response Nurse to support RRS.
2017 Survey Results

• Results demonstrated significant differences between ICU nurses and floor caller responses for two of the 29 survey items.

• ICU nurses (94%) reported significantly higher confidence in activating the RRS than floor callers (76%), $\chi^2 (2, N = 215) = 12.88, p = .002$.

• Other findings showed that significantly more ICU nurses (86%) vs floor callers (67%) disagreed that Rapid Response calls are required because management of the patient by nurses is inadequate $\chi^2 (2, N = 213) = 10.71, p = .005$.

• Both of these findings suggest that floor nurses lack of confidence in identifying clinically deteriorating patients and activating the RRS.
Barriers to initiation of RRS

- Unrecognized clinical deterioration
- Fear of triggering hospital-wide systems
- Emotional distress in activating RRS unnecessarily
Intervention

• After the survey results were reviewed, the information was used as part of the 24/7 Rapid Response Nurse implementation plan.

• A pilot proactive rounding program was developed for the specially trained Rapid Response Nurses
  – To identify and assess high risk patients
  – To support floor nursing teams to implement early interventions
  – To prevent further patient deterioration or transfer the patient to a higher level of care.
Operations & Workflow

<table>
<thead>
<tr>
<th>Priorities</th>
<th>Routine Activities</th>
<th>Rationales/Measure</th>
</tr>
</thead>
</table>
| Responder to Code Blue & Rapid Response events takes immediate priority over all other activities for this team | • Attend each event & monitor (SOP)  
• Assist team leader & coach staff  
• Ensure event documentation completion  
• Identify safety issues & rectify/escalate | ✓ Trained staff at each event  
✓ 100% documentation  
✓ Rectify safety issues immediately |
| 1. Code Blue | | |
| 2. Rapid Response | | |
| • Attend each event  
• Act as team leader  
• Ensure orders are completed  
• Ensure appropriate patient disposition & transfer  
• Ensure event documentation completion | ✓ Trained staff at each event  
✓ Early intervention for high risk patients (eg. antibiotics for sepsis)  
✓ Triage patients to right level of care  
✓ 100% documentation |
| Call for APP/MD back-up team at any time | • Review list of overnight emergencies  
• Ensure & rectify proper documentation in Epic  
• Follow-up on patients who had emergency events overnight and remained on the floor | ✓ Early intervention for high risk patients (eg. IV access, BIPAP)  
✓ Triage patients to right level of care |
| Proactive rounding Call for APP/MD back-up team at any time | | |
| • Review the Early Intervention list in Epic  
• Print the list and highlight those for review  
• Round on patients in high risk categories (MEWS >8)  
• Ensure high risk patients have  
  o IV Access, oxygen, suction  
  o Orders (lab work/vital signs) | ✓ Trained team to point of emergency  
✓ Prevent patient deterioration  
✓ Monitor ED boards  
✓ Triage/Reassess ED patients |
| Proactive rounding Call for APP/MD back-up team at any time | • Daily Rounds on inpatient units  
• Check in with charge nurse on top 3 patients at risk of decline and add to Early Intervention list  
• Daily check of emergency equipment (Executive Health)  
• Replace missing equipment after events and pms | ✓ Build relationships between units  
✓ Liasise with Patient Flow Coordinators  
✓ Hospital Wide safety support |
Inter-professional Training
Rapid Response Nurse Interventions

- Average number of Rapid Response Nurse (RRN) interventions per shift
  - Reviews the charts of 14 high risk patients (MEWS > 4)
  - Proactively rounds on 5 high risk patients
  - Transfers 3-4 patients to ICU
  - Responds to 2 Rapid Response activations
  - Answers 4 phone consults
  - Supports floor nurses, physicians, patients & families
  - Documents interventions in the EHR

Average 15 patient contacts/shift
# 2018 Survey Results

<table>
<thead>
<tr>
<th>Experience</th>
<th>Description</th>
<th>Agree or Strongly Agree</th>
<th>p &lt; 0.05*</th>
</tr>
</thead>
<tbody>
<tr>
<td>All groups</td>
<td>Ward/Unit nurses support my decision to call a Rapid Response</td>
<td>Agree</td>
<td>X</td>
</tr>
<tr>
<td>Q15</td>
<td>The ongoing plan of care for the patient is clearly documented after a Rapid Response call</td>
<td>Agree or Strongly Agree</td>
<td>X</td>
</tr>
<tr>
<td>Experience-0-3 yrs</td>
<td>If I cannot contact the Primary Team about my sick/clinically deteriorating patient I activate the Rapid Response System</td>
<td>Agree or Strongly Agree</td>
<td>X</td>
</tr>
<tr>
<td>Experience-4-10 yrs</td>
<td>Junior doctors (Interns/Residents) support my decision to call a Rapid Response</td>
<td>Agree or Strongly Agree</td>
<td>X</td>
</tr>
<tr>
<td>Q12</td>
<td>Senior doctors (Attendings) support my decision to call a Rapid Response</td>
<td>Agree or Strongly Agree</td>
<td>X</td>
</tr>
<tr>
<td>Q13</td>
<td>Using the Rapid Response System increases my workload when caring for a sick patient</td>
<td>Disagree or Strongly Disagree</td>
<td>X</td>
</tr>
<tr>
<td>Experience 10 yrs +</td>
<td>I would activate the Rapid Response System for a patient I am worried about even if their vital signs are normal</td>
<td>Agree or Strongly Agree</td>
<td>X</td>
</tr>
<tr>
<td>Q10</td>
<td>Ward/Unit nurses support my decision to call a Rapid Response</td>
<td>Agree or Strongly Agree</td>
<td>X</td>
</tr>
<tr>
<td>Q15</td>
<td>The ongoing plan of care for the patient is clearly documented after a Rapid Response call</td>
<td>Agree or Strongly Agree</td>
<td>X</td>
</tr>
</tbody>
</table>
Rapid Response Quality Outcomes

OMC-NO Critical Care and Non-Critical Care Codes per 1000 Discharges

- Codes Adult Critical Care per 1000 discharges
- Codes Adult Non-Critical Care per 1000 discharges
- Linear (Codes Adult Non-Critical Care per 1000 discharges)
Additional Outcomes

• A continuous quality improvement program was initiated to support optimal patient care delivery.

• Improvement in peer group ranking for Hospital Survey of Patient Safety (HSOPS) indicated a positive shift in cultural change related to
  – communication openness
  – non-punitive response to errors
  – frequency of events reported
Conclusion

• Rapid Response System seems to be a valuable patient safety program that provides support to patients, families, and frontline staff.
Questions

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References


