Alarm Fatigue In The Emergency Room Setting

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Alarm Fatigue In The Emergency Room setting

Nora Walsh, Tiffany Wilkins, Jocelle Flores & Justin Dickinson
Insignificant hospital alarms lead to:

- Decrease in patient satisfaction
- Increase in patient anxiety
- Decreasing caregiver’s time for patient care
- Caregiver desensitization to alarms
  - therefore delayed response in critical alarms
PICO QUESTION

- Are emergency room nurses who customize patient alarms compared to those who use the default settings more attentive to critical alarms?

- P: Emergency room nurses

- I: Customizing patient alarms

- C: In comparison to nurses using default settings

- O: Increased attention to critical alarms
80%-90% of ECG monitor alarms are deemed insignificant (Jepsen & Sendelbach, 2013)

Alarms dropped from 90,000 to 10,000 over 6 weeks and a small increase in pt satisfaction scores.

- Implemented on other floors for overall 60% drop in alarms for the floor
EVIDENCE

- 43% reductions critical alarms observed in critical care setting (Jepsen & Sendelbach, 2013)
- Failure to respond to critical alarms due to desensitization is resulting in failing to catch “real” alarms (Korniewicz, Clark & David, 2008)
Barriers & Strategies

lient: 

• Staff uneducated on how to adjust alarms
• Staff being overwhelmed by patient census to considering changing alarms for each patient

Strategy to Overcome:

• EDUCATION
Expected Outcomes

- Establish a baseline set of vital signs
- Using clinical judgment, adjust the alarms settings to a more personalized setting based on baseline vital signs
- Adjusting alarms for each patient will decrease caregivers’ alarm burden without compromising patient safety
Project Plans

- Two nurse residents will gather information during the same shift.
  - One nurse resident will adjust alarms and record the number of alarms answered
  - The other nurse resident will leave alarms at the default setting and record number of alarms answered
  - Comparisons will be made based on the results seen
Current Practice at LVHN

- **Blood Pressure**
  - Systolic: low-90 high-160
  - Diastolic
- **Heart rate:** 50-120
- **Respirations:** 8-30
- **Oxygen saturation:** >90%
Implications at LVHN

On multiple dates Jocelle and Nora both went a 12 hour shift from 3pm-3:30am. Jocelle followed our suggested practice in receiving a baseline set of vital signs and adjusting each patient’s monitor settings according to that. Nora did not adjust any alarm and kept the default settings.

Alarms answered on 6/7/15:
Jocelle-20 alarms
Nora-53 alarms
<table>
<thead>
<tr>
<th>Date</th>
<th>Jocelle</th>
<th>Nora</th>
<th>% of Less Alarms Answered</th>
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<tbody>
<tr>
<td>6/7/15</td>
<td>20</td>
<td>53</td>
<td>37%</td>
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<td>7/10/15</td>
<td>32</td>
<td>74</td>
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<td>64</td>
<td>57%</td>
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</tbody>
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Comparison number of alarms. Jocelle adjusted her alarms each shift and Nora did not.


ECRI institute honors the johns hopkins hospital for innovations in alarm management. (2013). ECRI Institute, 26-27.


Make It Happen

- Questions/Comments:

Contact Information: