

# Alarm Fatigue In The Emergency Room Setting

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# Alarm Fatigue In The Emergency Room setting

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# Purpose

- **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

# EVIDENCE

- 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

- **Barrier:**
  - **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

Date	Jocelle	Nora	% of Less Alarms Answered
6/7/15	20	53	37%
7/10/15	32	74	43%
7/14/15	40	61	65%
7/24/15	38	58	65%
8/2/15	48	89	54%
8/3/15	37	64	57%

Comparison number of alarms. Jocelle adjusted her alarms each shift and Nora did not.

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- Questions/Comments:

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