Reducing Cardiac Telemetry Nuisance Alarms through Evidence-based Interventions
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**PURPOSE**

To reduce the number of nuisance alarms on a non-ICU cardiac telemetry unit

- **Objectives**
  - Increased staff knowledge re: nuisance alarm management
  - Decreased number of nuisance alarms
  - Decreased number of phone calls from Central Telemetry Center (CTC)

**PROJECT PLAN**

- **Design:** Rapid-cycle quality improvement project
- **Setting:** 32 bed non-ICU cardiac telemetry unit
- **Ethics:** IRB Exempt Status, no risks to patients/staff

**RESULTS**

- **Staff Education Module**
  - 52 staff completed Education Module (34 RNs, 18 PCAs)
  - Increased staff knowledge re: nuisance alarm management
  - Decreased number of phone calls from CTC

- **Daily Audit Summary**
  - Decreased number of phone calls from CTC 57.76% (t=3.485, p< .001)

**PRACTICE IMPLICATIONS & SUSTAINABILITY**

- **Practice Implications**
  - Increased staff efficiency; fewer workflow interruptions
  - Improved patient safety related to more accurate cardiac monitoring, battery charge, etc.
  - Opportunity for adoption by other units/hospitals in healthcare setting

**REFERENCES**

- Bickel, C.M., Bickel, C.C., & Bickel, C.C. (2018). Technological obsolescence (Part 1): A survey of approaches to manage clinical alarms with intent to reduce alarm fatigue. Critical Care Medicine, 46(9), e1294-e1300. doi:10.1097/CCM.0000000000002739

**EVIDENCE-BASED INITIATIVES**

- **Clinical alarm technology is intended to**:
  - Increase safety, efficiency, and reliability
  - Decrease errors and costs
  - Improve patient outcomes

- **Clinical alarm technology can also**:
  - Contribute to adverse patient events
  - Decrease safety, efficiency, and reliability
  - Increase staff burden to respond
  - Desensitize staff to auditory stimuli

- **To reduce the number of nuisance alarms on a non-ICU cardiac telemetry unit**

- **Standardization of daily care can improve quality outcomes**
  - EB protocols for daily care of patients on cardiac telemetry monitoring to include:
    - Electrode pads changed daily
    - Skin prep prior to new electrode pad placement
    - Correct placement of electrode pads
    - Increased check of telemetry box battery supply and timely battery changes
    - Daily audits of patient care to determine adherence to protocol implementation