

Medical device alarm safety

Scope of problem

100s → 1,000s → 10,000s

100s of alarm signals per patient, per day = 1,000s of alarm signals on each unit = tens of thousands of alarm signals throughout a hospital per day

85-99% of alarm signals don't require clinical intervention

Alarm Fatigue

Clinicians become desensitized, overwhelmed or immune to the sound of an alarm.



Fatigued clinicians may:

- Turn down alarm volume
- Turn off alarm
- Adjust alarm settings

These actions can have serious or fatal consequences.

Joint Commission Sentinel Event database from January 2009-June 2012,

98 alarm related events reported* → 80 resulted in death

13 resulted in permanent loss of function → 5 resulted in unexpected additional care or extended stay

* The reporting of most sentinel events to The Joint Commission is voluntary and represents only a small portion of actual events. Therefore, these data are not an epidemiologic data set and no conclusion should be drawn about the actual relative frequency of events or trends in events over time.

Recommendations/Solutions

1. Have a process for safe alarm management and response
2. Inventory alarm-equipped medical devices
3. Have guidelines for alarm settings
4. Have guidelines for tailoring alarm settings and limits for individual patients
5. Inspect, check, and maintain alarm-equipped devices

These actions correspond with recommendations from The Joint Commission, the Association for the Advancement of Medical Instrumentation (AAMI) and ECRI Institute.



For additional solutions view our Sentinel Event Alert at www.jointcommission.org/sea_issue_50/