MEDICAL ALARM SAFETY IN HOSPITALS

Background:
Between January 2009 and June 2012, there were 98 reported alarm-related events with 80 resulting in patient deaths, 13 in permanent loss of function, and five requiring additional care. Alarm equipped devices are essential in providing safe care in critical care settings such as: emergency rooms, intensive care units, and critical care units. When used properly, medical alarms provide crucial information to the clinician which is used to make medical and treatment decisions. One identified problem is that a single patient care unit may have over 100 alarm signals in a single shift, leading to clinician desensitization and "alarm fatigue." In response to the alarms, clinicians may turn off the alarm, turn the volume down, or change the alarm limits which can often have fatal results.

Contributing factors to the misuse of medical alarms:

- Alarm fatigue
- Improper alarm settings
- Absent or inadequate alarm systems
- Equipment malfunctions and failures
- Alarm settings inappropriately being turned off
- Alarm settings not integrated with other medical devices
- Inadequate staffing to support or to respond to alarm signals
- Alarm signals not audible in all of the necessary clinical care areas

Recommendations:

- Establish a cross-disciplinary team to address alarm safety
- Re-establish priorities for the adoption of alarm technology
- Provide an ongoing staff training program for safe alarm management
- Develop guidelines for tailoring alarm settings and limits for individual patients
- Identify default alarm settings and alarm limits appropriate for each level of care
- Ensure a process for safe alarm management and response in high-risk clinical areas
- Implement guidelines for alarm settings used in high-risk areas or high-risk clinical situation

The recommendations offer hospitals a framework on which to assess their individual circumstances and develop a systematic, coordinated approach to alarms. By making alarm safety a priority, lives can be saved.

For additional information go to: http://www.jointcommission.org/sea_issue_50/

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