

# HEALTH SYSTEM MANAGEMENT

CLINICAL MANAGEMENT

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## The C-Suite's Role in Combating Alarm Fatigue

Catch the spark before the fire with alarm management support

After the Great Fire of London in 1666, the first automated detectors and threshold fire alarms were invented. At the time, they consisted of a string stretched through a house and into to the basement where it was connected to a weight suspended over a gong. In theory, the fire would burn through the string and trigger the alarm.

In today's hospital setting, the "strings" are simple threshold alarms—SPO<sub>2</sub>, heart rate, etCO<sub>2</sub>, etc.—that are far too simplistic and will (and have) fall short of keeping patients safe. Early recognition of meaningful alarms is needed to signify deteriorating patient conditions and catch the spark before the fire.

Over the last several years, many conversations have occurred with hospital decision makers and representatives of regulatory bodies about their frustration and challenges with alarm-management compliance. The aim of the Joint Commission's National Patient Safety Goal (NPSG 06.01.01) is to reduce alarm fatigue and keep patients safe. But unlike the early fire-detection alarms, human physiological states are complex and often unpredictable. The answer requires complex problem solving—not just a simple string.

### BY LOTHAR THIELEN

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While it's not easy to change dynamics, the answer lies in people, process and solid enabling technology. How you use that technology is vital and the C-suite must be involved in order to

support system and culture changes. Without that support, the patient and the bottom line can suffer.

### A CLOSER LOOK AT THE NPSG

NPSG.06.01.01 was created by the Joint Commission to improve the safety of all clinical alarm systems.

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- **Phase One:** In 2014, healthcare providers were required to identify the alarm hazards that needed to be addressed based on their individual situations
- **Phase Two:** As of Jan. 1, 2016, organizations were expected to have developed and implemented specific policies and procedures to combat hazards and educate staff.

## BENEFITS OF EFFECTIVE ALARM MANAGEMENT

In U.S. hospitals, tens of thousands of alarm signals are activated each day and it's been estimated that between 85% and 99% are non-actionable. Due to this, clinician time is used inefficiently and many are becoming desensitized and overwhelmed to the sounds.

In response to this, NPSG guidelines and industry best practices were established for effective alarm management—with the ultimate goal being better patient outcomes. It makes sense: effective alarm management gives clinicians back the important time needed to make effective, informed assessments and bedside decisions. Spending less time chasing unnecessary alarms can result in fewer acute-care crises, reduced critical-care transfers and shorter lengths of stays.

As the healthcare system is moving toward outcomes-based reimbursement, effective alarm management also brings tremendous benefits to hospitals from a business perspective. Providing quieter environments will ultimately help a hospital pass its NPSG.06.01.01 survey, but may also help improve Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) satisfaction scores and offer metrics to prove patient safety under the Centers for Medicare & Medicaid Services' (CMS) Value-Based Reimbursement (VBR) program.

## KEY TO COMPLIANCE SUCCESS

Despite the clear benefits and the ongoing regulatory deadlines, U.S. hospitals still struggle with alarm-management compliance. Designing an alarm-management plan that works for the clinical staff is not an easy feat; it takes time, energy and resources to get it done. One of the key factors to the nation's most successful programs is C-suite involvement. The participation of key leadership helps to reduce barriers and ensure the necessary resources for success.

## BEST PRACTICES FOR ALARM MANAGEMENT

With proactive, executive-level leadership supporting alarm-management initiatives, hospitals will be able to reduce the number of meaningless alarms, which improves patient safety. The following is a list of best practices that leading hospital systems have used to make their alarm-management goals a reality.

- **Creation of Interdisciplinary Teams:** Alarm management is not just a nurse or physician problem - it impacts the entire organization. That is why an interdisciplinary team should be created to plan and execute the alarm-management initiative. The team should include members from the C-suite, nursing, physician and IT departments.

- **Ensuring Accessible Data:** Baseline and on-going alarm data are the keys to understanding the current state of alarm management and, ultimately, proving the success of new initiatives. With access to vendor-agnostic analytics, reporting and data, the interdisciplinary team can understand response times, roles and responsibilities for workflows, as well as total alarm count by category.
- **Understanding of a Cultural Shift:** Understanding, managing and addressing alarm safety needs to be an organizational change and C-suite involvement enables this cultural shift. Simply put, alarm management is a change-management initiative. It is about changing how a hospital works across teams and departments and using new technologies and strategies to ensure better patient safety. **Technology alone won't drive change - there has to be a cultural shift.**

## TECHNOLOGY TO SUPPORT CHANGE

Data collection, data analysis and vendor-agnostic middleware are the main technology components for alarm-management initiatives.

Once your interdisciplinary team defines a unified vision for what it wants the alarm-management program and processes to look like, the next step revolves around data collection and analysis (discussed above). Once that is in place, middleware can be used to manage the process by "handling" alarms based on defined policies and workflows. Middleware acts as a "bridge" between different systems - linking alarms and alerts from various devices to a hospital's communication system, which then sends the signal to relevant roles. Middleware helps prioritize and escalate alarms, route assignments and generate reports. Once the interdisciplinary team makes alarms and alerts actionable, middleware supports notifying the right people in time to proactively respond.

Tools are available to help hospitals be more efficient, protect their patients and their bottom line. Many vendor partners want to be a part of alarm teams and, if they have experience, their insights and tools can be helpful. Consider enrolling the right partners in the effort.

Meeting the Joint Commission's NPSG requirements will entail a combination of approaches to alarm management. The lynchpin is the engagement of the C-suite in the process. If executives are not on board, bringing real change to alarm management can be very difficult; but, it can, has and needs to be done.