For hospitals, alarm management has been a problem for years. And while the 2011 Alarm Summit got us all thinking about the very real issue of alarm fatigue, new regulatory and certification requirements from the Joint Commission and the National Patient Safety Goal (NPSG), clinical research, case studies and even outcome requirements by CMS have not made much of a dent in the issue. The most recent NPSG deadline was in January 2016, which raises the question: Why are so few hospitals prepared?

The Alarm Management and Fatigue Crisis

In U.S. hospitals, tens of thousands of alarm signals are activated each day and 98 percent of them are non-actionable. Due to this, clinician time is being used inefficiently and many are becoming desensitized and overwhelmed to the sound (even, at times, missing the 2 percent of alarms that require immediate action).

Think about it this way: A hospital may have 10 or more devices in its intensive-care units – vents, pumps, nurse calls, bed-fall and bathroom alarms, physiological monitors, etc. Most of these devices are highly sensitive, disparate technologies that have similar sounds, which are not prioritized. It’s not hard to see how alarm-related issues contribute heavily to the 400,000 patient deaths every year from medical mistakes. In fact, the ECRI Institute listed alarms as a “Top 10 Technology Hazard.”

Alarms, which were created specifically for the benefit of patient safety, have now become burdens to clinicians and, at times, a danger to patients. On top of that, the U.S. healthcare system is transitioning to outcomes-based reimbursement, and alarm-related events can and will significantly hurt business. The KPIs – including specific metrics for alarm management – that determine whether hospitals will be paid, link outcomes to efficiency and patient safety.

The time is now for hospitals to get smarter and more strategic with their alarm management – for the wellbeing of their clinicians, business and, most importantly, for patients.

Where to Start? Four Areas for Improvement

I have been in more than 300 hospitals in the last four years, and most of them are struggling with alarm fatigue and just beginning the process of redesigning their alarm-management plan. The majority of these hospitals have four important elements missing that are holding back progress:

1. Interdisciplinary Teams: Alarm management is not just a nursing problem; it’s not just about technology. Alarm management impacts all areas of the clinical team (and beyond) and should be planned and executed by an interdisciplinary team.

2. Expectations vs. Reality: Alarm management is a complex problem that won’t be solved overnight – it requires a lot of time, energy and resources. Too often, hospitals have the impression that there is a silver-bullet solution that will solve all of their alarm management problems quickly. This is not the case.

3. Accessible Alarm Data:
Typically, baseline alarm data across teams and technologies has been hard to access, own and repeat.

4. Cultural Shift: 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.

Keys to Alarm Management Success

From a high level, the keys to alarm management success encompass changing how work gets done across clinical teams and the way in which a hospital chooses to use enabling technology. Now, let’s break it down to specifics, which are proven best practices for alarm management:

1. C-Suite Support: This should be a mandatory component for alarm-management projects. Having C-suite support will reduce barriers and ensure the necessary resources for success.

2. Cross-Clinical Team: As I noted before, alarm management impacts the entire organization vs. only one team. A cross-clinical team, which represents nursing, physicians, safety/quality and regulatory departments, needs to be established to ensure a unified vision (not to mention, responsibility and accountability).

3. Access to Reports, Analytics and Data: The cross-clinical team must get access to vendor-agnostic analytics/reporting and data in order to understand current baseline alarm counts across disparate devices. Otherwise, how will a hospital know it made a difference in patient outcomes? The team needs to understand response times, roles and responsibilities for workflows, as well as total alarm count by category.

4. Understand the Current State: The team needs to know exactly how things stand currently in terms of alarm management. What are best practices by patient population for settings? What are the customization of alarm settings and expectations by discipline/unit and patient population? Expected response times? Expected workflow around smart devices?

5. Unified Vision of the Future State: By understanding the current state, the team can identify the areas for improvement and work together to create a unified vision of the future state of alarm management. This is the creation of best practices for default settings across care paths and patient populations. This future vision should include:
   - Policies on inter/intra-team communications around alarm settings (both written and verbal)
   - Organized workflows between and across clinical teams with regard to alarms
   - Clear staffing patterns by unit and acuity
   - Understanding the impact of architecture on alarm response (hallways, private rooms, doors, etc.)

6. Technology: Partner with your technology vendors to create alarm-management solutions that your unique organization requires. Many technology companies have done this before, so ask them for advice and know that you don’t have to reinvent the wheel. (To note: best practice supports middleware to collect data from all of your alarming devices and should be vendor-agnostic.)

An effective alarm-management program goes a long way toward creating a working model for a successful cross-clinical team, supported by the C-suite, whose long-term results impact patient safety and outcomes.

Now make some noise – create your team – and make alarm management a priority.

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