White paper

Duress pendants for healthcare

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Security Concerns in Healthcare

Roughly two million Americans are victims of workplace violence every year.[1] According to a U.S. Department of Labor Statistics survey, “nearly five percent of the 7.1 million private industry business establishments in the United States had an incident of workplace violence within the 12 months prior.”[2]

In the healthcare industry, the dangers are even more pronounced. As reported by the Center for Personal Protection & Safety, “healthcare professionals are 16 times more likely to be attacked on the job than any other service professionals.”[3]

Figure 1 Healthcare professionals are 16 times more likely to be assaulted than any other service professional

500,000 nurses are victims of violent crimes every single year.

The number of assaults is staggering, with roughly a half a million nurses being the victims of violent crimes every single year.[4] In a study by the Emergency Nurses Association, 55 percent of emergency nurses report having experienced verbal abuse or physical violence in the last week alone, with 25 percent of nurses reporting being the victims of frequent physical violence — more than 20 or more reported assaults — in the last three years.[5]

1.Occupational Safety and Health Administration, 2012. “Safety and Health Topics/ Workplace Violence.” http://www.osha.gov/SLTC/workplaceviolence/
2.U.S. Bureau of Labor Statistics, 2006. “Survey of Workplace Violence Prevention, 2005.” http://www.bls.gov/iif/oshwc/osnr0026.pdf
3.Center for Personal Protection & Safety, 2010. “Workplace Violence in Healthcare Settings.” http://www.fha.org/acrobat/JohnW/CPPSHealthcareWPV.pdf
4.Ibid.

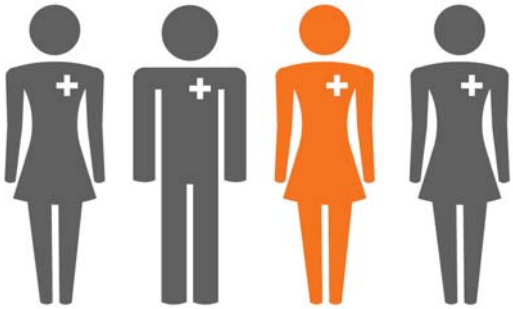

Figure 2 One in four nurses report having been assaulted more than 20 times in the last three years

At best, only one in five assaults on nurses is reported.

As incredible as those numbers seem, they are only the reported events; at best, only one in five incidences of verbal abuse or physical violence is reported.[1]

Worse, the problem is increasing. According to the Joint Commission, "[s]ince 2004, the Sentinel Event Database indicates significant increases in reports of assault, rape and homicide."[2]

There are a number of reasons to ensure the safety and security of the healthcare environment. In addition to the obvious moral obligation, violence in the workplace can impose tremendous financial costs. The American Association of Critical-Care Nurses writes:

> Violence has been shown to have negative organizational effects such as low worker morale, increased job stress, increased worker turnover, reduced trust of management and coworkers, hostile working environments as well as significant costs associated with lost workdays and wages.[3]

Moreover, failure to provide a secure environment can result in loss of accreditation from licensing and regulatory agencies at the local, state, and federal levels. Juries also continue to level higher and more frequent punitive damages at institutions deemed not to have taken appropriate security measures in the event of an emergency.[4]

5.Institute for Emergency Nursing Research, 2011. "Emergency Department Violence Surveillance Study" http://www.ena.org/IENR/Documents/ENAEDVSReportNovember2011.pdf

1.Michael R. Privitera, *Workplace Violence in Mental and General Healthcare Settings*. (Sudbury: Jones and Bartlett, 2011), 10

2.The Joint Commission, 2010. "Sentinel Event Alert, Issue 45: Preventing violence in the health care setting" http://www.jointcommission.org/assets/1/18/SEA_45.pdf

3.According to the American Association of Critical-Care Nurses, 2004. "Workplace Violence Prevention4" http://www.aacn.org/WD/Practice/Docs/Workplace_Violence.pdf

While it is impossible to entirely eliminate the possibility of violence in the workplace, there are measures that can greatly reduce the risk. Of those measures, studies have found a wireless duress system to be the most effective. After surveying the complete range of security options available to emergency departments, the Institute for Emergency Nursing Research came to the following conclusion: “Only 1 [environmental control measure] was significantly associated with lower odds of physical violence – panic button/silent alarm.”[1]

Duress System Requirements

Unlike other security options, duress buttons are designed to protect individuals from personal harm.

Unlike other types of security products, a duress button is used for the sole purpose of protecting people from personal harm. It does so by providing instant alerts to security personnel in case of an emergency event.

Each staff member carries a duress button to be activated in case of an emergency event, providing them the ability to send a call for help immediately. This can be when an employee considers his or herself in imminent danger, needs immediate assistance, or even becomes aware of a broader emergency in need of reporting. A duress button provides protection not only for the staff member carrying it, but for the entire workforce and healthcare environment.

At its simplest, a duress button system consists of three components:

- The duress button itself, used to send an alarm in the case of an emergency.
- A wireless network to carry the alarm signal.
- A head-end application to capture the alarm transmission and notify responders.

Because the purpose of a duress button is to ensure the safety of the individuals carrying them, the system supporting the duress button must meet certain requirements to be effective.

4.Russell L. Colling Tony W. York, *Hospital and Healthcare Security*, (Burlington: Butterworth-Heinemann, 2010), 21

1.Institute for Emergency Nursing Research, 2011. “Emergency Department Violence Surveillance Study” http://www.ena.org/IENR/Documents/ENAEDVSReportNovember2011.pdf

Complete Integration

A duress button must be easily integrable with the systems used by mobile responders to ensure a rapid response.

According to Patricia Allen's *Violence in the Emergency Department: Tools and Strategies to Create a Violence Free ED*:

> Hospitals need to anticipate that violence will occur and have a plan to prevent it. Each staff member, whether employed full-time, part-time, or [per diem], needs to be trained in de-escalation tactics and to have the tools, support, and empowerment necessary to know how to act rapidly when a violent episode does erupt in the Emergency Department.[1]

The key word in that statement is *rapidly*. Due to the nature of the emergency situations that face the healthcare industry today, it is not sufficient that a duress button alarm be sent to only a central station or a single command center. Just as employees are inherently mobile in a healthcare setting, so are healthcare emergency responders.

Figure 3 The ability to alert mobile responders is critical to a rapid response

Likewise, violence can arise from individuals forced to wait for healthcare due to understaffing or overcrowding; psychiatric patients, especially those not being medication-compliant; gang members and criminals seeking access to drugs; substance abusers undergoing withdrawal; and violent individuals who see medical facilities as providing easy

1.Patricia Allen, *Violence in the Emergency Department: Tools and Strategies to Create a Violence Free ED*, (New York: Springer, 2009, xii

targets.[1] Because of this, it is essential that the duress button be able to summon the appropriate response.

Which means that to be effective, the duress button, as well as the wireless network that supports it, must be easily integrable, so that it can be seamlessly integrated into the security systems the staff already counts on, and provides a response necessary to the emergency.

The flexibility of the Inovonics wireless network allows for duress buttons to be added to virtually any existing security system. Multiple partner integrations, along with add-on receivers, allow for an easy system upgrade while leveraging existing infrastructure with minimal incremental cost.

The flexibility and integrability of Inovonics duress systems also allow for a variety of responses. For instance, when a duress button is pressed it can be configured to immediately initiate a hospital lockdown procedure. Having the ability to easily trigger an emergency response can save precious time when it matters most.

Single Facility to Campus-Wide Coverage

Because of the size and complexity of healthcare campuses, the wireless network must be scalable. As Russell L. Colling and Tony W. York write in *Hospital and Healthcare Security*:

> Today's healthcare environment poses daily tests for security administrators charged with protecting these critical infrastructures. The delivery of healthcare changes rapidly and is vastly different from what it was just a few years ago. Hospitals are no longer an isolated group of free-standing buildings. They are critical infrastructures forming complex medical centers.[2]

A duress system must be able to protect employees in the entire healthcare campus, including parking garages, stairwells, and on the grounds.

Nor are the buildings on a campus the only places that need protection. Staff must also be protected in stairwells, parking lots, and on the grounds. As Russell L. Colling and Tony W. York remind us, “[t]he assault problem is also evident outside the facility. The facility grounds, parking facilities, and streets surrounding the facility may offer opportunities for assault to occur.”[3]

1.Patricia Allen, *Violence in the Emergency Department: Tools and Strategies to Create a Violence Free ED*, (New York: Springer, 2009), xi
2.Russell L. Colling Tony W. York, *Hospital and Healthcare Security*, (Burlington: Butterworth-Heinemann, 2010), 1
3.Russell L. Colling and Tony W. York, *Hospital and Healthcare Security*, (Burlington: Butterworth-Heinemann, 2010) 54

Figure 4 Duress pendants must work no matter where the employee is

The Inovonics wireless network offers superior range and performance, especially in large campuses or multiple-building sites. Inovonics duress pendants can be added to an existing system to provide additional security in a single building, or scaled out to an entire multi-building healthcare facility spread over acres. Parking lots, out buildings and even outdoor areas can be easily covered on a single system without costly wiring, trenching or additional configuration.

Mission Critical Reliability

Most wireless technologies are not capable of operating reliably in healthcare environments.

There is no requirement for a duress pendant than reliability. This is a function of the wireless network. There are numerous kinds of wireless technology, and most are not capable of operating in challenging healthcare environments.

The demands placed on a wireless network by the healthcare industry differ dramatically from those of most other industries. The building materials themselves create incredible challenges to RF propagation. A wireless duress system needs to penetrate a variety of structural materials, including bricks, steel, insulation, and even the lead used in radiology departments to shield patients and staff from radiation.

Because of these demands, many commonly used wireless technologies are inadequate for duress buttons. Those that allow other applications to run on the same wireless system can incur interference and down time, and those that are not

designed specifically to provide campus-wide coverage can experience unacceptable dead spots.

Designed to move small amounts of data over a moderate range in commercial environments, the Inovonics wireless network uses a frequency-hopping, spread-spectrum technology that sends redundant messages across multiple channels to avoid interference obstacles. Due to its low latency and high reliability, the commercial mesh network is an ideal solution for security applications. The network is self-managed and dedicated, ensuring high priority alarm messages are delivered without interference.

Conclusion

Healthcare workers have a right to safety; Inovonics can help provide that.

Whether in emergency departments, behavioral health programs, or human resource departments, hospital employees are increasingly at risk of physical violence. The problem has reached epidemic proportions, and ignoring it is no longer morally, financially, or legally tenable. Beyond the considerations of accreditation and freedom from punitive damages, healthcare staff have a right to a safe working environment.

Fortunately, there is one security measure that's been proven to reduce violence: the duress button. Just as an intrusion system protects against illicit entry and a fire system protects against fire, duress buttons protect against harm to individual employees. It is a critical component of any security system concerned with employee safety.

Inovonics duress systems are available from certified dealers. For more information, contact an Inovonics sales representative by email at sales@inovonics.com or by phone at 800.782.2709.