

# AI Could Alleviate Workplace Violence in Healthcare



Artificial intelligence (AI) has rapidly emerged as the most comprehensive safety option in healthcare, offering a solution that can be implemented swiftly. This innovation is particularly crucial in addressing the pervasive issue of workplace violence against medical workers, especially nurses, who often experience such violence to the point of normalising and ceasing to report it. Alarmingly, healthcare settings report more non-fatal workplace violence incidents than even law enforcement, necessitating urgent action to protect staff.

## The Consequences of Workplace Violence

The frequent exposure to workplace violence has dire consequences for healthcare professionals. Victims are at a higher risk of developing severe mental health conditions, such as post-traumatic stress disorder (PTSD), anxiety, depression, and burnout. Additionally, the impact extends to the workplace environment, leading to decreased productivity and increased nurse turnover rates. This affects the staff's well-being and compromises the quality of care provided to patients.

Hospitals are increasingly being held accountable for failing to protect their employees. Many states now mandate workplace violence prevention programs, and organisations like the Occupational Safety and Health Administration (OSHA) impose fines on non-compliant institutions. Thus, medical facilities must find effective ways to safeguard their staff and avoid these penalties.

### The Inadequacy of Current Staff Duress Solutions

Traditional staff duress systems, such as stationary panic buttons and real-time location systems (RTLS), are plagued by significant limitations. Stationary buttons, typically placed at the head of a patient's bed, are often inaccessible during violent incidents, potentially exacerbating the situation or causing further agitation among other patients. These systems provide limited coverage and only indicate the location where the incident began, not where it may have moved to.

RTLS-enabled duress solutions, which involve wearable badges, offer better tracking but still fall short due to their trade-offs between location accuracy and cost. High-accuracy systems are expensive to install and disrupt hospital operations, while lower-cost systems are less reliable and accurate, rendering them ineffective. Moreover, both types of systems generally only cover the hospital's interior, leaving areas like parking garages and walkways unmonitored.

#### How AI Addresses the Problems of Legacy Technology

Al-native staff duress solutions are designed to overcome the shortcomings of traditional systems. These solutions eliminate the trade-off between accuracy and cost, providing high-accuracy location tracking that is easy to install and affordable enough to cover an entire hospital campus. Utilising machine learning algorithms, AI systems can identify the unique signatures of various spaces, ensuring precise location tracking even in areas like walkways and stairwells.

These advanced solutions leverage dedicated networks to maintain low-latency connections to AI models, avoiding the bottlenecks often experienced on hospital WiFi networks. This ensures that alerts are sent and responded to promptly, providing critical support to staff in real time.

#### The Importance of Robust Software

A comprehensive AI-driven duress solution includes not only wearable alerting devices but also sophisticated incident management software. © For personal and private use only. Reproduction must be permitted by the copyright holder. Email to copyright@mindbyte.eu. This software facilitates real-time coordination with responders, keeps them updated with developments, and integrates seamlessly with existing security and communication systems. Forensic reporting features provide historical event insights, enabling hospitals to continuously improve their response strategies and comply with regulatory standards.

While the underlying causes of workplace violence in healthcare are complex and multifaceted, hospital leaders can control the technology used to protect their staff. Implementing Al-driven safety solutions is a proactive step towards creating a safer and more supportive work environment. By prioritising the adoption of these advanced systems, hospitals can significantly enhance staff safety, ensure quicker response times during incidents, and demonstrate a strong commitment to the well-being of their employees.

## Source: Chief Healthcare Executive

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