

Healthcare AI: Improving Patient & Clinician Experience

ABSTRACT

With the rapid advancement of AI, the conversation is on how AI and automation can transform traditional processes. VirtuSense's unique platform solution VSTOne offers a suite of AI tools that perform patient monitoring tasks, streamline communication, and reduce task load for nursing staff by using both generative AI and machine learning. With VSTOne, hospitals can improve their patient's experience as well as support their clinical staff to continue to perform high-quality care.

What Patients and Staff Need

Labor shortages in healthcare affect patient safety, satisfaction, and quality of care, as well as clinician well-being. **High staff-to-patient ratios compromise the personal aspects of care—comfort, communication, cultural connection—and increase clinician stress and burnout.** Hospitals are leveraging technology like VSTOne's automated fall prevention using AI and LIDAR, achieving a 60% reduction in falls. Emerging generative AI tools like ChatGPT-4 and Bing AI offer potential to streamline documentation and re-humanize acute care, with VSTOne integrating such AI for proactive monitoring and improved communication.

60%**Reductions in falls****Cutting sitter hours by 48%**

Labor Shortage Impacts:

**Safety****Patient Satisfaction****Care Quality****Burnout**

Blended Nursing with VSTOne

A new blended nursing strategy utilizing bedside nurses, virtual nurses, and documentation automation will create a highly efficient hospital floor. By reducing reliance on contract staffing, hospital teams see greater consistency, less time spent on training new staff, and fewer procedural errors. VSTOne is built with smart tools and automation that bring efficiency to bedside and virtual nursing teams.

VSTOne virtual nursing brings remote nursing into the hospital room seamlessly. Telehealth and virtual nursing capabilities with VSTOne integrate directly with TVs already in patient rooms. This allows virtual nursing teams to conduct admission and discharge processes, educate patients on their prescriptions, assist with rounding, and answer patient and family questions. **Hospitals using VSTOne for virtual nursing have reported faster admission and discharge times and greater efficiency for in-person staff without excessive stress on their IT infrastructure. On average, this approach has reduced patient length of stay by 90 minutes.** With seamless virtual nursing, patients have more face time with nurses and faster response to their needs, and in-person nurses can focus on active care.

Automation also provides a suite of background tools that help nurses protect patients. VSTOne offers 24/7 fall prevention monitoring that uses LIDAR sensors and machine learning to detect bed exits and alert staff before a fall. The system can monitor vitals via a wireless patch and alert nurses to custom vital thresholds. VSTOne even protects staff with automated notifications when a team member enters the room of a potentially dangerous patient.



Features of VSTOne



24/7 Fall Prevention Monitoring



LIDAR Sensors



Vitals Monitoring



Violent Patient Alerting



Bathroom Fall Prevention



Pressure Injury Prevention



Hand Hygiene Tracking



Virtual Assistant



Betsy and VSTOne

The VSTOne virtual assistant, affectionately called Betsy, is our revolutionary way to address patient questions, concerns, and comforts and eliminate duplicate record keeping or miscommunication between clinicians. The virtual assistant uses large language models and integrations with the EHR to accurately communicate and assist patients. Patients can say “Hey Betsy” to activate the assistant and ask for help from a nurse and more. Betsy will have an iterative conversation responding to the query in detail, and then route the patient’s need to the correct staff member or department. Clinicians can have natural conversations with patients, while Betsy documents the interaction in the EHR.

Hello,
I’m Betsy.

[Watch what Betsy is doing in hospitals:](#)
[Click here to meet VSTOne.](#)

Patient-Focused Care

VSTOne tools are developed with patient comfort in mind. LIDAR monitoring maintains patient privacy, cameras are never used. VSTOne reduces 95% of false alarms compared to other fall prevention methods, eliminating annoying beeps and buzzes that disturb patients. And VSTOne uses calm, spoken directions when alert is detected, keeping patients at ease.

Conclusion

In essence, multi-purpose, edge-AI hardware solutions like VSTOne, including the revolutionary Betsy virtual assistant, represent a promising path forward in healthcare. They have the potential to enhance patient care, alleviate the burdens on clinicians, and usher in a new era of efficiency and quality in the healthcare industry. As we continue to embrace these transformative technologies, the future of healthcare looks brighter and more patient-centric than ever before.



How can VSTOne and Betsy help your staff?
[Click here](#) to request a demo of VSTOne and Betsy.