

Who/where

Saratoga Hospital, New York State, US

Challenge

Saratoga Hospital wanted to address the issue of patient deterioration across the hospital to support its nursing staff as they dealt with patient events including those outside of the ICU. Research showed that there was an opportunity to apply technology in the general ward that could help in reducing a patient's likelihood of returning to the ICU.

Solution

Philips IntelliVue Guardian Solution, an automated Early Warning Scoring system.

Results

- Our product aided the clinicians in identifying subtle signs of patient deterioration.
- · Enhanced patient and staff experience.

Supporting patient safety through Early Warning Scoring

There are 440,000 preventable adverse events that contribute to patient deaths in US hospitals every year¹. Research has shown that 66%² of cardiac arrest patients show signs and symptoms up to six hours prior to an event but physicians are only notified 25% of the time.

Saratoga Hospital installed Philips IntelliVue Guardian Solution, an automated Early Warning Scoring (EWS) system, which monitors and analyzes vital signs to aid the clinician in identifying subtle signs of patient deterioration. It led to the orthopaedic unit having no patient codes in the four years since installation.



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It's intuitive, it tells nurses what is going on and helps them to make a confident decision.

Diane Bartos – DNP, RN, NEA-BC, Administrative Director, Intensive Care Unit, Cardiovascular Services, Saratoga Hospital

Saratoga Hospital is a regional provider of healthcare to a growing population of 240,000 people in New York State. It has 171 beds, more than 400 doctors, 21 locations, and 52 specialties, spanning a range of medical services including primary care, urgent care, imaging, occupational health, ambulatory surgery, rehabilitation, oncology, and a new community health center.

Research has shown that $66\%^2$ of cardiac arrest patients show signs and symptoms up to six hours prior to an event but physicians are only notified 25% of the time. An adverse event would commonly lead to a 'code', when a patient stops breathing or their heart stops.

The objective of every hospital is to reduce patient codes by intervening at the point when a patient starts to deteriorate. There are 440,000 preventable adverse events that contribute to patient deaths in US hospitals every year.²

The solution

Saratoga Hospital wanted to empower nurses, using technology, to be able to make critical interventions and detect vital signs early in order to act quickly.

Identifying an ICU need

In 2013, Saratoga Hospital underwent a redesign of its ICU, a move that prompted its intensive care services team to explore the broader issue of patient deterioration across the hospital, to possibly reduce the number of transfers to the ICU.

While patients are closely and often continuously monitored in an ICU, on a general care unit the process and protocols can be much more manual and periodic. At Saratoga Hospital, patient safety is an equal priority in both care settings.

The solution was the installation of an automated Early Warning Scoring system (EWS) that can aid clinicians in identifying subtle signs of deterioration in a patient's condition. Saratoga Hospital installed Philips IntelliVue Guardian Solution in two phases between 2013 and 2015 on two third floor units.

"It looks at key vital signs, and it gives a point score for each vital sign that's abnormal with a total point score. If they need help, the ICU can help them in responding to that score and/or the charge nurse will follow up with the physicians," says Diane Bartos, DNP, RN, NEA-BC, Administrative Director, Intensive Care Unit, Cardiovascular Services at Saratoga Hospital.

Installing an automated scoring system like Philips Guardian IntelliVue EWS technology led to a reduction in patient codes and the orthopaedic unit having no codes in the four years since installation. Dr. Bartos adds: "It's intuitive, it tells nurses what is going on and helps them to make a confident decision".

Results at a glance

- Aided clinicians in identifying subtle signs of deterioration
- Enhanced patient and staff experience
- Saratoga Hospital was able to significantly reduce patient codes over four years



Helps to identify subtle signs of patient deterioration



Aided in reducing patient events



Enhanced patient and staff experience

Looking forward

Saratoga Hospital will continue to support patient safety and staff satisfaction using EWS to address the issue of patient deterioration across the hospital.

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- 1. James, JT. A New, Evidence-based Estimate of Patient Harms Associated with Hospital Care. Journal of Patient Safety: September 2013 Volume 9 Issue 3 p 122–128.
- Franklin C, Mathew J. Developing strategies to prevent in hospital cardiac arrest: analyzing responses of physicians and nurses in the hours before the event. Crit Care Med. 1994;22(2):244-247

Results are specific to the institution where they were obtained and may not reflect the results achievable at other institutions