



# Keep watch and intervene early

Philips IntelliVue Guardian Solution

**PHILIPS**

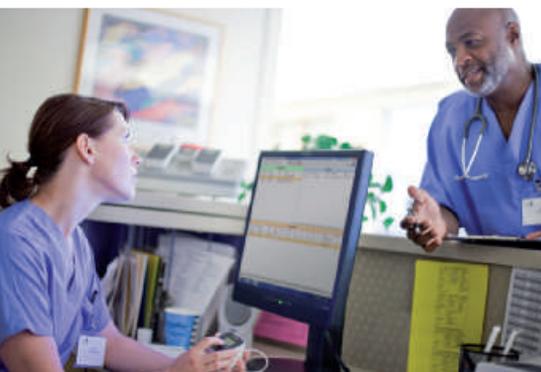
# The earlier, the better

## Helping to identify the right patient at the right time

The IntelliVue Guardian Solution is designed to aid identification of subtle signs of deterioration in patients. In the general floor as well waiting areas in the Emergency Department, directing caregiver attention to early signs of potential adverse events that can result in costly resuscitation efforts or treatment in the ICU. The system can be customized to your institution's early warning scoring and escalation protocols, facilitating early intervention to help improve patient care, financial outcomes, and clinician workflow.

### IntelliVue Guardian Solution

IntelliVue Guardian Solution allows caregivers to automatically acquire vital signs, automate early warning scoring (EWS) calculations, aid in identifying early signs of deterioration, and can inform responsible clinicians for early, effective intervention.



### IntelliVue Guardian Software

The core of the solution.



### Spot check patient monitors

Multi-patient, spot-check with clinical decision support.



### IntelliVue Cableless Measurements

Measure vital signs without restricting patient mobility.





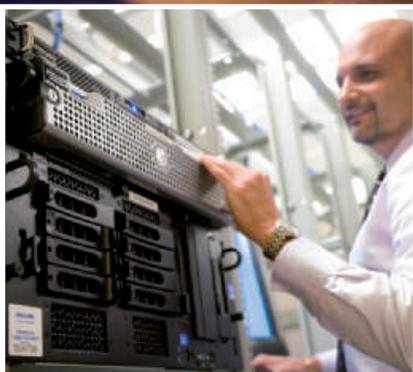
## Clinical realities on the general floor

Up to 17% of patients in the medical surgical areas of the hospital will face an unexpected complication<sup>1</sup>. But which of your patients belong to that 17%?

High throughput and reduced staffing in the general floor and the waiting area of the Emergency Department can make it very difficult to predict which patients to watch more closely. Up to 40% of unexpected deaths in hospitals occur on the general floor<sup>2</sup>.

### The warning signs are there

Clinical instability is present and measurable prior to patient decline. In fact, warning signs of physiological decline typically appear six to eight hours prior to an event. If these signs are not recognized and acted upon, further deterioration can occur. Research suggests that 70% (45/64) of patients show evidence of respiratory deterioration within eight hours of cardiac arrest<sup>3</sup>. In two-thirds of cases (99/150), patients show abnormal signs and symptoms within six hours of arrest, while an MD is notified only 25% of the time (25/99)<sup>4</sup>.



### IntelliBridge Enterprise

Connects IntelliVue Guardian Solution with hospital enterprise systems, such as EMR and ADT.



### IntelliSpace Event Management

Manage critical communications with actionable information sent to the caregiver's mobile device.



### Value Added Services

Integration and implementation services for exceptional operation.



### Clinical Services

Clinical expertise to help you transform your institution's clinical practices.

# Turn vital signs into vital action

## Early intervention puts time on your side

The IntelliVue Guardian Solution gives caregivers on general floors and in emergency departments the tools to anticipate and address signs of deterioration quickly, aiding appropriate action for the appropriate patient at the appropriate time. The solution automates IntelliVue Guardian EWS, and provides automated scoring of deterioration with Philips spot-check monitors and IntelliVue Cableless Measurements.



IntelliVue Cableless Measurements automatically check patient vital signs as frequently as you determine, while supporting patient mobility.

## Awareness when it counts

Patient decline can be spotted through the use of EWS and proper notification to clinicians. EWS more reliably identifies patients at risk than individual vital signs alone, so caregivers can trigger an appropriate and early response from the medical emergency Rapid Response Team – directly from the monitor. The use of these teams is gaining popularity due to their success in reducing unexpected ICU transfers<sup>5</sup>.



The flexible IntelliVue MP5SC patient monitor with built-in IntelliVue Guardian EWS can be used in spot-check as well as continuous monitoring mode.

## Reassurance measurements

The system aids in identifying significant deviations in a patient's vital signs readings, and automatically verifies the accuracy of the data by repeating the measurements at customized intervals. If early signs of deterioration have been detected, the IntelliVue Guardian Software can inform the responsible caregiver via the hospital's notification system, delivering the notification to the mobile device of choice (digital pager, smartphone, tablet, etc).

## Tailored care to follow your protocol – a possible scenario



**12:00 AM**

### EWS 2 – No action needed

Patient vital signs taken with the IntelliVue MP5SC, which shows an EWS score of 2, displayed on the monitor with a recommendation (per hospital protocol) on the 'action list' to contact the nurse in charge. EWS score captured by IntelliVue Guardian Software.



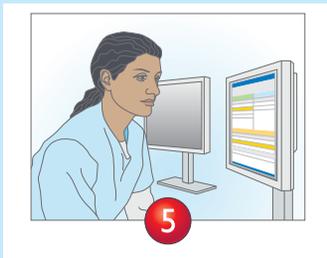
**2:00 AM**

### EWS 4 – Caregiver notified/ action taken according to protocol

With an EWS score of 4, the 'customized action list' calls for the nurse in charge to be contacted and vital signs taken more frequently, at intervals identified in the hospital protocol. EWS score is captured by IntelliVue Guardian Software, which uses IntelliSpace Event Management to notify the nurse in charge, who receives a notification via mobile device and responds to the notification.



After acknowledging the notification at the monitor, and assessing the patient, the nurse in charge recommends more vigilant monitoring with the IntelliVue Cableless SpO<sub>2</sub> and Cableless Respiration measurement pods.



**6:00 AM**  
**EWS 5 – Further action to prevent deterioration**

IntelliVue Cableless Measurements periodically measure and transmit patient vital signs to IntelliVue Guardian Software, which aids in identifying early signs of deterioration, and sends a deterioration warning via IntelliSpace Event Management, notifying the caregiver. An attended spot-check is performed and EWS is updated, showing an increase to 5.



**6:22 AM**  
**EWS 5 – Further action to prevent deterioration**

The “action list” instructs the caregiver to notify the Rapid Response Team. The caregiver does this without leaving the bedside, by pressing the “Call RRT” button on the MP5SC. This sends a message to the RRT via IntelliSpace Event Management.



**6:42 AM**  
**EWS 5 – RRT Arrives**

The RRT arrives 20 minutes later. They log their arrival time by pressing “RRT Arrived” button on the MP5SC. After evaluating the patient, the RRT takes additional action – such as prescribing medication – to prevent the patient from further deterioration and a potential unexpected ICU readmission or transfer.



**8:00 AM**  
**EWS 4 – Patient more stable, transfer to ICU unnecessary**

The caregiver takes patient vital signs, which show the EWS score has moved from 5 to 4, and instructs the caregiver that vitals and EWS should continue to be taken every 2 hours. Patient is more stable now, and an unexpected and costly transfer to ICU has been avoided.

# Your system, your way



## Facilitates communication

IntelliVue Guardian Solution enhances workflow on the general floor through automated messaging to caregivers using the hospital-paging infrastructure. IntelliSpace Event Management can manage notifications and deliver them to the care team's mobile devices of choice to improve communication and response at the right point of need – regardless of caregiver location.

## Smooths workflows, reduces errors

The IntelliVue Guardian Solution reduces many of the manual tasks of documentation and calculation, possibly leading to reduced human error and saving clinician time. For example, the IntelliVue Guardian Solution supports caregivers logging in at the patient monitor, to let them complete their charting to the electronic medical record from the bedside. Or the IntelliVue Guardian Solution can intercept ADT information, to help automate the admission of patients.

## Documentation and compliance review

IntelliVue Guardian Solution may help improve – as well as document – compliance with established patient safety standards by making it easy for caregivers to follow instructions to notify a physician or a rapid response team, as required by the hospital protocol.

## Helps standardize care and meet the Joint Commission goals

Deploying an EWS can help standardize care across your institution's facilities. Depending on how it is deployed, the IntelliVue Guardian Solution also helps you meet Joint Commission goals and standards of care <sup>6</sup>:

- Improve recognition and response to changes in a patient's condition
- Improve accuracy of patient identification
- Improve effectiveness of communication among caregivers

## Highly configurable

The IntelliVue Guardian Solution features a highly configurable EWS scoring engine that is adaptable to commonly used early warning score calculations, and can be customized to support variations of EWS protocols preferred by your hospital. Deploy the solution on your institution's hardware or virtualized environment using your LAN/WLAN infrastructure to easily manage:

## Support as you fine tune your workflow

Philips clinical specialists will conduct an assessment of your current workflow and practices related to gathering data and identifying the trend of clinical deterioration. Philips will work with your clinical team to identify process changes that will have positive impact on the activation of your Rapid Response Teams, make recommendations, and develop customized configurations based on your specific EWS protocols. Philips clinical experts will plan, validate, and test the solution to facilitate a successful workflow transition.



**Philips Healthcare is part of  
Royal Philips**

**How to reach us**

[www.philips.com/healthcare](http://www.philips.com/healthcare)

[healthcare@philips.com](mailto:healthcare@philips.com)

1. Bellomo R, Goldsmith D, Russell S, Uchino S. Postoperative serious adverse events in a teaching hospital: a prospective study. *Med J Aust.* 2002; 176:216-218.
2. <http://ihi.org/IHI/Programs/StrategicInitiatives/TransformingCareAtTheBedside.htm>
3. Schein RM, Hazday N, Pena M, et al. Clinical antecedents to in-hospital cardiopulmonary arrest. *Chest.* 1990;98:1388-1392.
4. 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.
5. Sharek PJ, Parast LM, Leong K, et al. Effect of a rapid response team on hospital-wide mortality and code rates outside the ICU in a children's hospital. *JAMA.* 2007;298(19):2267-2274.
6. <http://www.jointcommission.org/>

Please visit [www.philips.com/intellivueguardiansolution](http://www.philips.com/intellivueguardiansolution)



© 2014 Koninklijke Philips N.V.  
All rights are reserved.

Philips Healthcare reserves the right to make changes in specifications and/or to discontinue any product at any time without notice or obligation and will not be liable for any consequences resulting from the use of this publication.

Printed in The Netherlands  
4522 991 02681 \*AUG 2014