



Hillrom™

# WELCH ALLYN® VITAL SIGNS MANAGEMENT

A 360° Solution



**ELEVATE  
PATIENT CARE—**

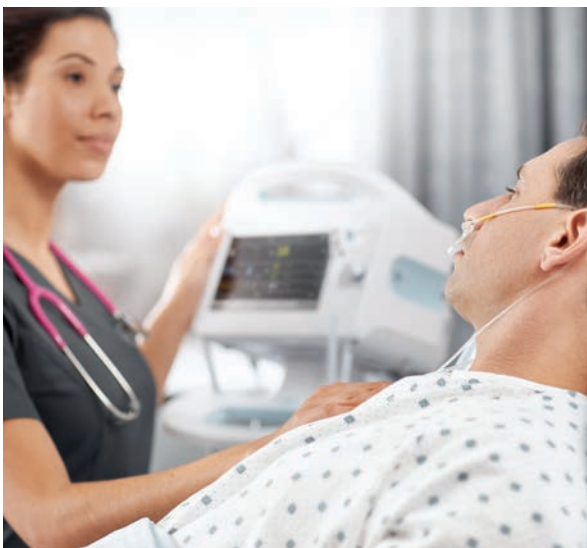
**EARLY DETECT AND PREVENT  
PATIENT DETERIORATION.**



**VITAL SIGNS MONITORING HAS GAINED EVEN MORE IMPORTANCE WITH THE INCREASE OF NON-COMMUNICABLE DISEASES, HIGHER ACUITY PATIENTS IN GENERAL CARE FLOORS AND THE SHORTAGE OF CLINICAL STAFF.**

**WE UNDERSTAND YOU NEED TO MANAGE VITAL SIGNS IN AN EFFICIENT AND INTELLIGENT WAY THROUGHOUT THE PATIENT JOURNEY.**

**WE ARE HERE TO HELP YOU WITH A FLEXIBLE, SECURE AND CONNECTED VITALS SIGNS SOLUTION THAT HELPS CLINICIANS PREDICT AND IDENTIFY PATIENTS' DETERIORATION EARLIER.**



# VITAL SIGNS MANAGEMENT

## THE CHALLENGES



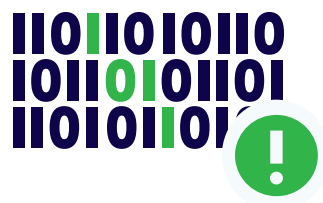
Inconsistency and errors on vital signs and Early Warning Scores documentation



Multiple new users with varying levels of clinical training and experience



Poor or expensive integration solutions with healthcare systems



Too much data that doesn't really support clinical decision making



Shortage of nursing staff in most countries in Europe and the Middle East

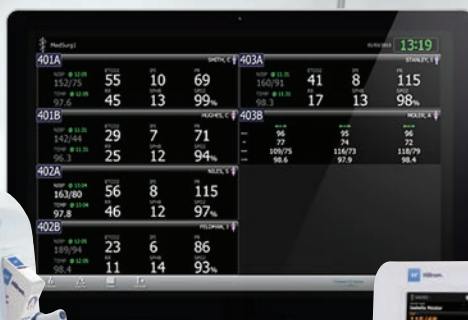


Increased security threats

# AN INTELLIGENT 360° VITAL SIGNS SOLUTION

Our complete solution for vital signs—a 360° solution—is designed to help you efficiently manage vital signs improving patient care and staff satisfaction while optimizing resources and reducing costs.

Connex® Integrated Wall System (CIWS)



Connex® Vital Signs Monitor (CVSM)

Connex® Clinical Surveillance System (CCSS)

Connex® Spot Monitor (CSM)

## Connex Clinical Surveillance System (CCSS)

Revolutionizing patient outcomes in medical surgical environments

Electronic Vitals and EWS Documentation



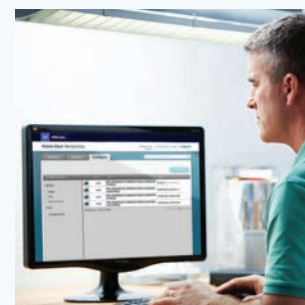
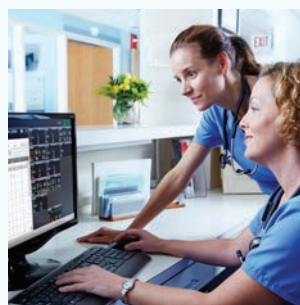
Respiratory Monitoring



Connex Central Station



Connex Service Dashboard



**WE HELP YOU TO OVERCOME THESE CHALLENGES  
ACROSS CARE SETTINGS ALLOWING YOU TO:**

**ANTICIPATE  
CARE**

**SAVE  
TIME**

**PROTECT  
PATIENT  
DATA**

**ADVANCING  
CONNECTED  
CARE™**

# ANTICIPATE CARE

## ARE YOU PREPARED FOR THE INCREASED ACUITY OF YOUR PATIENTS?

As most care units continue to care for higher-acuity patients, you need intuitive tools—to help identify signs of patient deterioration earlier—that align with existing workflows.

Adding complexity, there are often several signs or symptoms that—when presented together—can indicate the onset of a condition far more serious than what may be diagnosed by just looking at one of those signs or symptoms individually.

At Hillrom we help you anticipate patient care by providing the tools you need to track first signs of patient deterioration:

- ACCURATE SET OF VITAL SIGNS**
- ADVANCED PARAMETERS**
- FULLY CUSTOMIZED EARLY WARNING SCORES**
- REAL-TIME DECISION-MAKING SUPPORT**

## ACCURATE SET OF VITALS



## Best-in-class technology that set the gold standard for vitals acquisition

- Welch Allyn® SureBP®—Unique and probably the faster blood pressure technology that takes accurate BP readings in just 15 seconds
- Choice of proprietary and industry-leading Welch Allyn® SureTemp® Plus or Braun ThermoScan® Thermometers
- Convenient choice of Masimo®, Nellcor® or Nonin® SpO2—both sensors and acquisition technology
- Spot-check respiration measurement with the Masimo® RRP technology. Innovative PerfectTemp® technology adjusts for variability in probe placement

## EARLY WARNING SCORES



## Total flexibility and on-device calculator

- Welch Allyn® Connex® Scoring App enables facility's early warning score protocols at the bed side
- On-device calculator for custom protocols like nEWS, mEWS, etc.
- Up to 6 custom scores based on up to 12 different parameters
- Up to 37 parameters—20 fully customized plus 17 standard parameters
- Customized messages based on calculation of your EWS protocol

## CONTINUOUS PARAMETERS



## A single solution for higher and lower acuity patients

- Our upgradable design gives you the freedom to add additional parameters as the need arises
- Optional advanced parameters for higher acuity patients: 3 or 5-Lead ECG
- Masimo® Total Hemoglobin (SpHb)
- Masimo® Acoustic Respiration (RRa)
- Medtronic® Microstream® Capnography (etCO2)

## REAL-TIME DECISION-MAKING SUPPORT



## Enable clinicians to take timely, purposeful action that drives patient safety

- In a connected workflow, all vitals and patients' observations are immediately available on the EMR giving clinicians throughout the facility immediate access to accurate patient data
- Optional surveillance system allows clinicians to proactively monitor patient status 24/7
- Clinicians can document and track signs of patient deterioration and make informed patient care decisions quickly

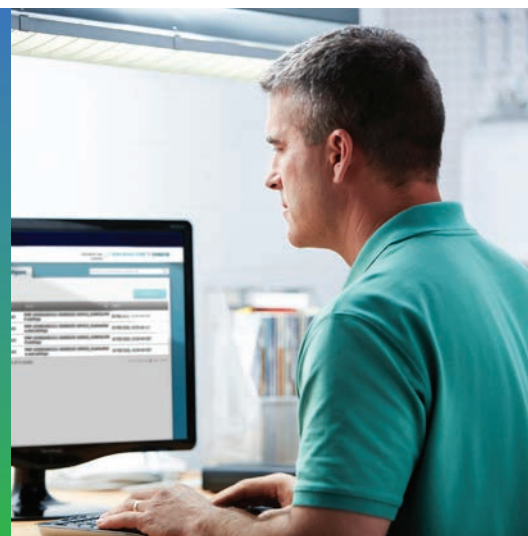
# SAVE TIME

## MORE PATIENTS, FEWER NURSING STAFF. SOUND FAMILIAR?

Patient volume and acuity play a crucial role in a nurse's ability to provide optimal care. Nursing shortage remains a problem and is expected to rise considerably in most countries worldwide.

The need to optimize workflows is a must to enhance patient safety and to ensure staff satisfaction and security.

We can help you to save and optimize time to improve both clinical and operational efficiency.



### Save time With a Short Learning Curve

Our monitors and solutions are extremely easy-to-use and with intuitive interfaces.



### Save time Acquiring and documenting vitals and observations

With Connex monitors you can take accurate vitals and document them into your EMR in just about one minute.



### Save time with Integration and Maintenance

We ensure your IT and Biomedical staff piece of mind both with EMR integration and system maintenance.





“Thanks to the easy, intuitive touchscreen operation, the nursing staff were able to operate the new system very quickly without much training effort”

Kristina Kelm, Deputy Care Director at Marienhospital Stuttgart, Germany

“The nursing staff is always impressed by the monitor’s speed and ease of use.”

Andrew Simmonds, Project Manager at Heart of England NHS FT, United Kingdom

“Taking blood pressure on the way up (referring to the SureBP technology) is a lot better. You don’t get complaints so much now, as it’s a lot more comfortable for patients.”

Extract from article “Investing In Quality Observations”, Clinical Services Journal, February 2018, United Kingdom

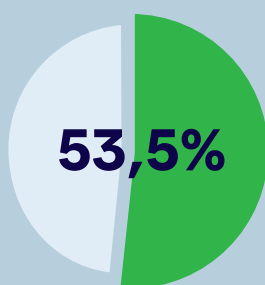
“What counts for us is the reliability and how long it takes to maintain the device. By using Welch Allyn Service tools makes it easier and faster.”

MR. Manoj Putheyedethu Divakaran, Senior Biomedical Engineer at the Heart Hospital, Qatar

## SEE HOW HOSPITALS ARE SAVING TIME WITH OUR WELCH ALLYN CONNEX VITAL SIGNS SOLUTIONS:

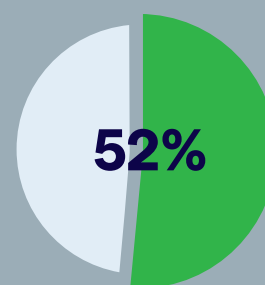
Two examples of time savings per patient when capturing and sending vitals to their EMR with Welch Allyn Connex devices compared to manual documentation.

**Imperial College Healthcare  
NHS Trust, United Kingdom**



Time Saving

**Capio St. Görans Hospital  
Stockholm, Sweden**



Time Saving

# PROTECT PATIENT DATA

## THE CHALLENGES

That's why our vital signs devices and connectivity solutions are built and tested with Clinicians can take advantage of connected workflows while still protecting patient privacy, data integrity and helping to safeguard your network.



- Information found within a patient's medical record is more valuable to cybercriminals than credit card data.<sup>1</sup>



- The healthcare industry is the only industry where insider threats outnumber external threats.<sup>2</sup> 1 in 5 healthcare employees would sell confidential information.<sup>3</sup>



- In Europe, with the General Data Protection Regulation (GDPR) fines for data breaches can be imposed up to € 20 million or 4% of global turnover, whichever is the greater.



- Networked medical devices are one of the healthcare assets primarily affected by malicious attacks that comprises data and patient security.

### Sources:

<sup>1</sup> CyberPolicy. Why Medical Records are 10 Times More Valuable Than Credit Card Info.

<sup>2</sup> American Medical Association. Patient Safety: The Importance of Cybersecurity in Health Care. <https://www.ama-assn.org/sites/default/files/media-browser/public/government/advocacy/cybersecurity-health-care-infographic.pdf>. Accessed November 1, 2018.

<sup>3</sup> Becker's Healthcare. 1 in 5 health employees willing to sell confidential data: 7 survey insights. <https://www.beckershospitalreview.com/cybersecurity/1-in-5-health-employees-willing-to-sell-confidential-data-7-survey-insights.html>. Accessed November 1, 2018.

# WE UNDERSTAND THAT DATA SECURITY IS A TOP HEALTHCARE CONCERN.

That's why our vital signs devices and connectivity solutions are built and tested with one of the highest standards of security features. Clinicians can take advantage of connected workflows while still protecting patient privacy, data integrity and helping to safeguard your network.

## DEVICE SECURITY

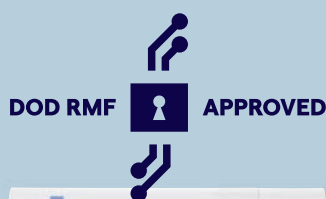
- Bi-directional clinician and patient authentication
- Patient identification via ADT query
- Single sign-on options—including integration with Imprivata®
- Roles based user authentication via Active Directory
- Configurable screen lock or auto power-down to force re-authentication
- Password-protected advanced device settings
- Automated deletion of patient data after successful sending to the EMR

## INFRASTRUCTURE AND POLICY ALIGNMENT

- Connectivity software that supports your existing security policies for cyber hygiene, scans, upgrades and patches
- Flexible support for server authentication certificates
  - Devices come pre-loaded with most common certificates
  - Custom certificates can be loaded
- Utilizes existing server infrastructure, databases and security software

## SECURE DATA TRANSMISSION

- Server authentication
- Multi-layered encryption over wireless and wired networks:
  - AES 128-bit encryption
  - WPA2 Enterprise wireless encryption
  - Unique communication protocol WACP
- FIPS 140-2 certified



**The Welch Allyn Connex Monitors are the first low-acuity vital signs monitors to receive the U.S. Department of Defense (DoD) Conditional Authority to Operate (ATO-C) approval.**

Earning this distinction requires that each device meets or exceeds the DoD's stringent cybersecurity prevention thresholds and incorporates measures to help minimize the risk of a cyber-attack, a requirement of the DoD's Risk Management Framework (RMF).

# ADVANCING CONNECTED CARE™

We understand you need tools that exchange and cooperatively use data to provide clinicians meaningful data to enable a 360° view of patient's condition within and across your organization.

The rise of connected medical devices and the need to provide clinical decision support from the sheer volume of healthcare data is definitely one of the main concerns of healthcare leaders.

The right connections among devices and healthcare professionals can be the difference between patient decline and recovery. The power of these connections is what drive us to provide you smart vital signs solutions that let you benefit of advanced connected care today!

You tell us how do you want to integrate and we make that happen.



- We offer you one of the most flexible connectivity options at a very competitive price
- Proven connectivity and close partnerships with more than 150 leading Electronic Medical Record (EMR) providers
- Securely capture and deliver patient data preserving protection of patient data/privacy
- Bidirectional communication with the EMR enable efficiency and patient safety
- Close partnership throughout the whole implementation—before, during and after the integration

“Every manufacture says that connecting a device to the EMR is piece of cake, but we all know that it can be challenging. What is good about the Welch Allyn system is that it’s simple to connect, it’s wireless and it maximizes the Cerner capabilities without duplication of patient data.”

MR. David Kitchener, AED Support Service at Heart Hospital, Qatar

“Welch Allyn was very cooperative. Working on the project together was straightforward and went very well. This first implementation went very smoothly.”

Michael Loskamp, Agfa Healthcare GmbH, on the pilot installation at Marienhospital Stuttgart, GERMANY

“It’s a way to allow other healthcare professionals to have immediate visibility of new patient data. So they can check and evaluate current patient status while making their way to where the alert is coming from. We have improved control and communications levels.”

Extract from article “ Sistema HEWS. El Algoritmo que mejora el trabajo enfermero”, Enfermería en desarrollo, no. 17, March 2018, pp. 34-37. The Henares University Hospital in Madrid (Spain) has used Welch Alln Vital Signs Solutions to implement their customized EWS in the general care floors and emergency units.





## **A 360° SOLUTION FOR VITAL SIGNS**



## **THAT IS FLEXIBLE, SECURE AND CONNECTED TO HELP YOU:**

- Anticipate care
- Save time
- Protect patient data
- Advance connected care



## **IN SUMMARY—THE VITALS SOLUTION THAT EVERYONE WANTS!**



Whether you are looking for a specific solution or just have some questions, we're here to help.

**LET'S TALK >**





**Hillrom**<sup>TM</sup>

## **ABOUT HILLROM**

Hillrom is a global medical technology leader whose 10,000 employees have a single purpose: enhancing outcomes for patients and their caregivers by advancing connected care.

Around the world, our innovations touch over 7 million patients each day. They help enable earlier diagnosis and treatment, optimize surgical efficiency and accelerate patient recovery while simplifying clinical communication and shifting care closer to home. We make these outcomes possible through connected smart beds, patient lifts, patient assessment and monitoring technologies, caregiver collaboration tools, respiratory care devices, advanced operating room equipment and more, delivering actionable, real-time insights at the point of care. Learn more at [hillrom.com](https://hillrom.com).

**For more information, please contact your local distributor, Hillrom sales representative or our EMEA Customer Care team at +353 46 906 7700.**

**[hillrom.com](https://hillrom.com)**

Navan Business Park, Dublin Road, Navan, Co Meath, C15 AW22, Ireland

The Connex Spot Monitor (CSM), the Connex Vital Signs Monitor (CVSM) and the Connex Integrated Wall System (CIWS) are intended to be used by clinicians and medically qualified personnel for monitoring vital signs of all patients. Additionally, the CIWS handles supply power to Welch Allyn 3.5V instruments. The Connex Central Station System (CCSS) is intended to be used by clinicians for the central monitoring of patient data and alarms collected with Connex monitors. CSM and CIWS are medical device (93/42/EEC) Class IIa. CVSM and CCSS are medical device (93/42/EEC) Class IIb. Notified Body: DQS Medizinprodukte GmbH (CE0297) Manufacturer: Welch Allyn, Inc., 4341 State Street Road, Skaneateles Falls, NY 13153 USA. EC Rep.: Welch Allyn Limited, Navan Business Park, Dublin Road, Navan, County Meath, Ireland. These medical devices are a regulated health products which, pursuant to such regulation bears a CE mark. Carefully read the detailed instructions for safe and proper use included in the documents accompanying the medical devices. The personnel of healthcare establishments are responsible for the proper use and maintenance of these medical devices.

Hillrom reserves the right to make changes without notice in design, specifications and models. The only warranty Hillrom makes is the express written warranty extended on the sale or rental of its products. If you need detailed information, please contact us: <https://emeai.welchallyn.com/content/welchallyn/emeai/en/other/contact-us.html>