



Trinity Medical Center Achieves Its Vision of Efficient and Accurate Documentation with Connex®



Overview

Customer
Trinity Medical Center

Location
Steubenville, OH

EMR Partner
MEDITECH MAGIC

Customer Profile
Trinity Medical Center is a 471-bed facility in eastern Ohio.

Trinity Medical Center uses the Welch Allyn Connex Vitals Management System to automatically transfer patient vital signs to its electronic medical record system, MEDITECH MAGIC. Clinicians in the hospital's newly opened state-of-the-art med/surg units use Welch Allyn Spot Vital Signs® LXi devices to capture patient vital signs and then wirelessly send the data to the EMR, giving hospital staff access to complete, accurate and real-time patient assessments on demand.

The Challenge

Vital signs provide an important leading indicator of patient health, and often yield the first clues to a patient's diagnosis and treatment options. In surgical units in particular, where blood components are regularly administered, access to timely and accurate vital signs readings is of paramount importance in identifying and treating potential transfusion reactions.

Traditionally, clinicians on the med/surg floors at Trinity Medical Center manually documented patient vital signs data in the EMR and/or the patient charts. Many times, patient vitals readings written on a scrap of paper would never make their way into the patient record. Becky Piko, RN, clinical manager, explains: "We would often end up searching for patient vitals—sometimes they'd

turn up in a nurse's pocket on a paper towel scrap—and then we'd have to go back and get that record into the EMR, or transcribe it manually on the paper charts. Our documentation process was inconsistent, and often not timely." Piko further commented that the potential for patient ID errors, transcription errors and lost vital signs readings that are a consequence of manual documentation methods was always a source of concern because of the potential impact on the quality of patient data—and therefore patient care.

So when planning and budgeting activities began for two new 20-bed med/surg units at Trinity Medical Center, the cross-functional committee charged with evaluating prospective technology improvements placed an automated vital signs documentation system high on the list of desired upgrades. Says Piko, "We had been talking for some time about going to paperless vital signs documentation—and so we were thrilled to have the opportunity to achieve our vision as part of our hospital expansion. But with the limited budget dollars that were ultimately allocated for this new technology, we knew we had to choose wisely."



The Solution

After a thorough review of the competitive options, the Welch Allyn Connex system quickly rose to the top as a vital signs documentation system that would provide the desired workflow option for the new med/surg floors at the best value. With the installation of a wireless network on the new floors, the Connex wireless workflow option using Spot Vital Signs® LXi devices—one of six workflow options available with Connex—was an attractive and logical configuration choice. Technical personnel from Welch Allyn worked in collaboration with key nursing, IT and biomedical engineering staff at Trinity Medical Center to install and integrate the Welch Allyn solution with the hospital's 802.11b wireless local area network, its admit/discharge/transfer (ADT) system and the EMR's standard results interface. Cheryl Cook, clinical coordinator, Information Systems, and part of the installation team, reflects on the Connex installation: "The process went more quickly than I originally expected, and we quickly worked through some preliminary challenges. You don't usually expect upgrades like this to go so smoothly—and it was great having Welch Allyn tech support on site for the installation."

“...significant savings in nursing time.”

Today, nurses and nursing aides on the new med/surg floors log onto the Spot Vital Signs LXi devices by scanning their barcode ID at the start of their rounds. They then identify patients by scanning their ID bracelet. After capturing and storing the patient's vital signs and manually entering the patient's pain and respiration levels directly into the Spot Vital Signs LXi devices, the nurse or aide confirms the data and presses "send," which wakes the radio up from its low-power mode and enables transmission of the data to the Connex software application. A direct feed from the ADT system to Connex updates patient demographics in real time, enabling Connex to validate the vitals data against patient records to ensure that only data for current patients are uploaded to MEDITECH MAGIC.

The Benefits

The automatic transfer of patient vital signs data to the EMR system via Connex has produced dramatic time savings for the nursing staff on the new med/surg floors at Trinity Medical Center. Says Piko, "We capture a minimum of one vital signs reading per patient per shift. But usually, we're taking significantly more readings per patient: for example, patients receiving transfusions have their vitals checked every 30 minutes. Patients returning from surgery are checked every hour for the four-hour period following surgery. With just four nurses and two aides caring for 20 patients per floor per shift, you can imagine the volume of readings that each nurse and aide is responsible for documenting every day."

In fact, even a conservative estimate of the nursing time savings realized through Connex is striking: by eliminating the time required to transcribe and document just two sets of vital signs readings per patient per shift, the nursing staff on the two new med/surg floors at Trinity Medical Center is saving 1,460 hours per year on a tedious though necessary task—and can instead spend more time with their patients.

Furthermore, the automated documentation of patient vitals data into the MEDITECH MAGIC EMR system has strengthened the value of other EMR applications by facilitating timely clinical decision-making and patient treatment recommendations. For example, as the hospital prepares to implement computerized physician order entry (CPOE), the availability of real-time, complete and accurate vital signs data in the EMR takes on even greater importance. Says Piko, "When we go live with CPOE, the availability of vitals data in the EMR—right there at the physician's fingertip—will be a huge timesaver to both the physicians and nursing staff, who would otherwise have to go searching for the latest vitals data before deciding on their treatment recommendations."

Piko summarizes the benefits of Connex this way: "Our process now using Connex for automated vital signs documentation is absolutely better. It's unquestionable. With Connex, we have the benefit of improved vital signs accuracy along with significant savings in nursing time. And of course all this translates to better care for our patients—the most important benefit of all."