



VERMONT HILLS

First Things First:

Prioritizing Vitals Documentation in Long-Term Care Through Automation



Overview

Customer

Marquis Vermont Hills

Location

Portland, OR

EMR Partner

PointClickCare®

Customer Profile

Established in 1989, Marquis Companies provides post-acute care and rehabilitation services, long-term care, assisted living, Alzheimer's care and home care at 26 facilities throughout Oregon, Idaho, Nevada, Montana and California. Marquis Vermont Hills is one of the organization's post-acute care facilities located in Portland, OR.

Key Business Outcomes

Marquis hypothesized that the use of an automated and connected vitals monitor would decrease clinician time required for vitals capture and documentation.

Introduction

The certified nursing assistants (CNAs) and other staff members at Marquis know how important vital signs documentation is—it's an important way in which they monitor resident health, check for signs of deterioration and determine proper medication needs and dosages. That's why it is meant to be among the very first things CNAs do upon beginning their shifts. However, lengthy manual vitals documentation processes were frequently interrupted or delayed, resulting in late and potentially inaccurate data being entered into PointClickCare®, the facility's EMR.

Marquis made the decision to automate the vital signs capture and documentation process. They implemented a Welch Allyn Connex® Vital Signs Monitor—helping to avoid these interruptions and delays, and transmit vitals data wirelessly to the EMR for immediate documentation directly in the resident's chart within PointClickCare. As a result, the facility has since completely eliminated the use of paper charting, enjoyed the ability to access up-to-date resident information anywhere, anytime, and seen significant time savings.

Study Objective: Comparing the Time to Document Vitals Manually vs. Electronically

This study evaluated the time it took clinicians to take vitals with the Connex Monitor, wirelessly connected to PointClickCare, compared to the time it took to take vitals manually and transcribe them into the EMR by hand. It was hypothesized that the use of an automated and connected vitals monitor would decrease clinician time required for vitals capture and documentation.

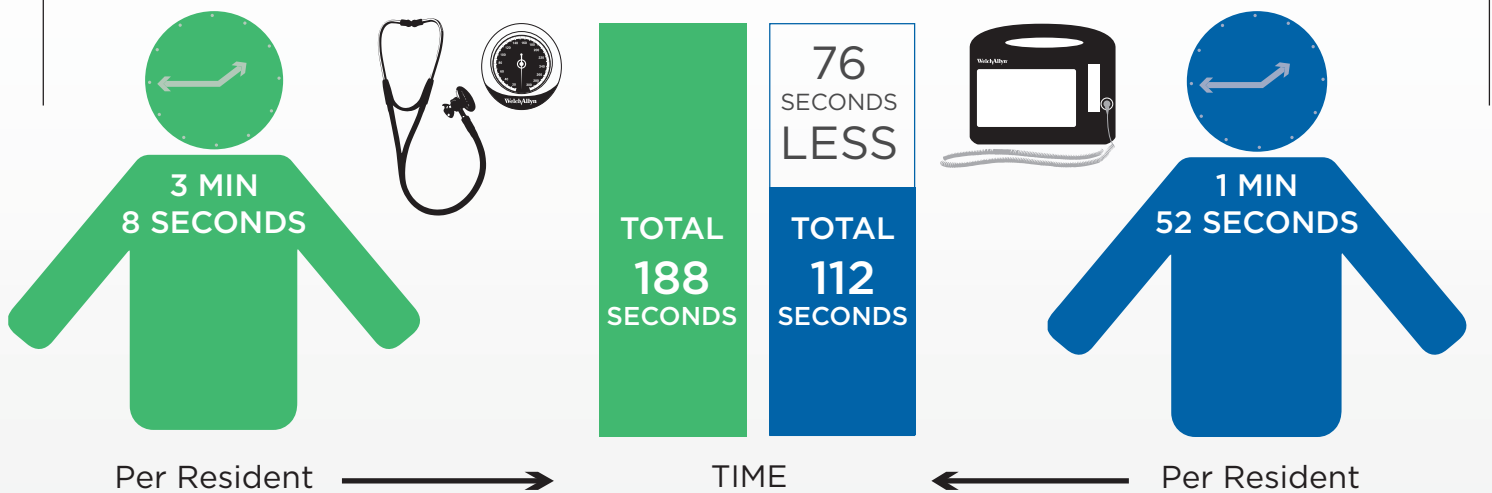
Study Outcomes:

Significant Time Savings

The total time taken for vital measurements via the automated method was an average of 112 seconds (1 minute, 52 seconds) versus the manual measurements taking on average about 188 seconds (3 minutes, 8 seconds). This is a difference of 76 seconds (1 minute, 16 seconds) per resident, which is a 40% time savings for vitals collection and documentation.



MANUAL VS. AUTOMATED



There was an additional unmeasured nursing time savings associated with the device as well. As one nurse noted:

With the manual process, the CNAs start to collect vitals but are usually interrupted by breakfast delivery. They have to get the seniors out of bed and set up for breakfast, and often don't finish vitals collection until several hours later. They don't enter the vital signs into PointClickCare until after all of the vitals are complete—often not until around 10am. During this time, I am performing the morning med pass, and I need vitals information to do this. I have to find the CNA to ask what the resident's vitals were, or recheck them myself. But, since the process is faster with the vitals machine, almost all residents' vitals are collected and charted before breakfast arrives. I just have to look in my computer as I'm passing out meds."

Data Accuracy

Although error reduction was not measured as part of this study, Marquis sees significant value in improving accuracy tied to automated vitals documentation. According to April Diaz RN, BS, Director of Clinical Services for Marquis Companies:

“When manually collecting vital signs, our clinicians had to first document the information on paper and then enter that information into the EMR. During this process, it was easy to omit data or enter it incorrectly. Automatically transmitting the vitals data directly from the monitor to PointClickCare helps us improve accuracy and serve our residents better as a result.”

Benefit to the Customer

How can we translate these time savings into cost savings? Here’s a simple model to show what an organization like Marquis Companies could potentially save over the course of a year through automation of vital signs capture and documentation:

Conclusions

Marquis staff members and residents alike have benefitted from automated vitals documentation and wireless EMR connectivity. 40% faster documentation has given clinicians more time to spend on direct resident care and they also feel more confident in the accuracy of the data entered into the EMR. In addition, the automated process has helped ensure vitals are documented quickly and accurately, rather than being delayed. First things first.

Potential Savings Based on Study Findings

Total beds across Marquis Companies	1,500
Residents with vitals collected once per day	750
Residents with vitals collected twice per day	375
Time savings for CNAs (daily across Marquis)	31.7 hours/day
Time savings for RNs (daily across Marquis)	19.6 hours/day
Cost savings for CNAs (yearly)	\$149,218*
Cost savings for RNs (yearly)	\$240,099*
Total Potential Annual Cost Savings	\$389,317

* Based on Oregon average CNA hourly wage of \$12.91 and average RN hourly wage of \$33.59.
Source: www.payscale.com