



Releasing Nursing Time with Connected Vitals: Imperial College Healthcare NHS Trust Case Study



Overview

Customer

Imperial College Healthcare NHS Trust

Location

London, UK

EMR Partner

Cerner

Customer Profile

Imperial College Healthcare NHS Trust (ICH) is one of the largest teaching hospitals in the UK, with over 1,100 beds across 5 hospitals in North West London. The Trust has a track record of innovation and is on a 'digital journey' to become paper-less by 2020.

Key Business Outcomes

Dealing with growing demand driven by changing demographics, the Trust recognises that it needs to accomplish more with the same resources to remain sustainable.

The use of automated and connected vital signs devices was identified as an effective 'grass roots' way to improve staff efficiency while also enhancing patient safety.

Introduction

The 'Safer Care Project' was initiated at Imperial College Healthcare NHS Trust (ICH) with the aim of using technology to identify patients at risk of deterioration and release nursing time to care.

The Trust invested in Welch Allyn Connex vital signs devices to help achieve its objectives. By connecting wirelessly to the Cerner electronic medical record (EMR) the devices capture and record patient vital signs seamlessly at the bedside, whilst also providing caregivers with early warnings score and escalation instructions automatically on screen.

Study Objective:

Comparing the Time to Document Vitals on Paper vs. Electronically

A study conducted by ICH evaluated the time it took caregivers to take vitals with the Connex monitor, wirelessly connected to Cerner, compared to the time it took to take vitals and record them manually on paper. It was hypothesised that the use of a connected vitals monitor would decrease caregiver time required for vitals capture and documentation and also eliminate transcription errors.

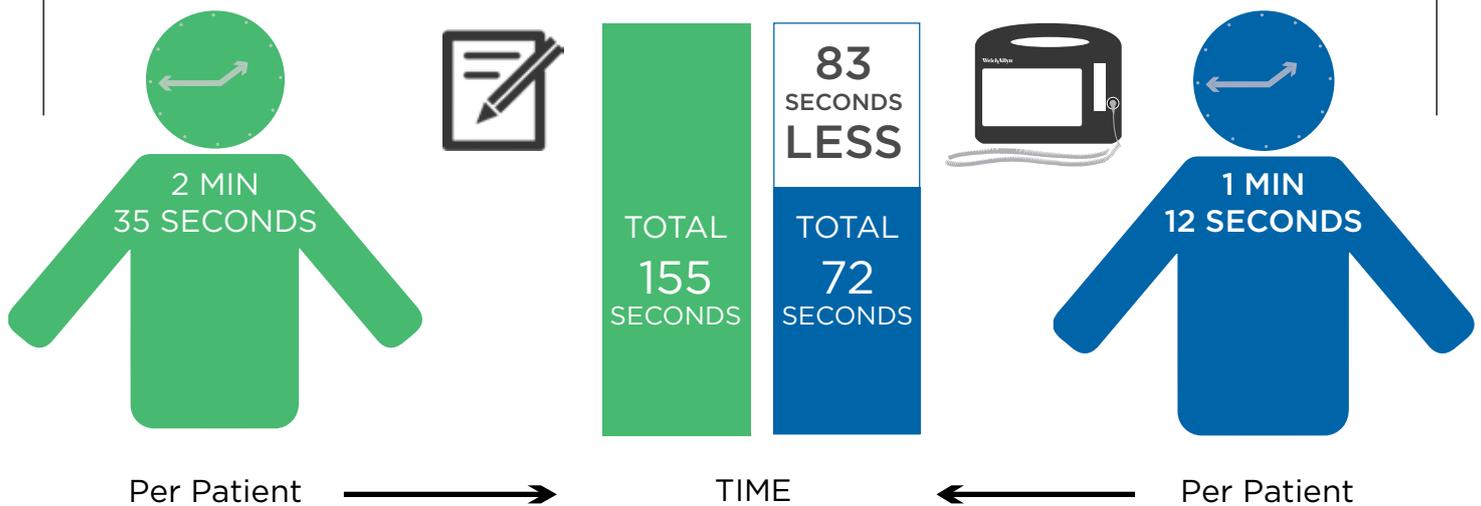
Study Outcomes:

Significant Time Savings

The mean time to take and record vitals electronically was 1 minute 12 seconds versus 2 minutes 35 seconds when recording manually on paper. This is a difference of 83 seconds per patient, which is a 53.5% time saving.



PAPER CHARTING VS. AUTOMATED



“By eliminating the need for caregivers to record vital signs on paper charts we have achieved a 53.5% reduction in the time it takes to document a full set of NEWS observations.” *Gerry Bolger, clinical lead for nursing informatics/chief nursing information officer, ICH*

❌ Transcription errors and incomplete records	✅ Automated vitals capture - reduce possibility of errors
❌ Response to patient deterioration	✅ On-screen Early Warning Scores - alerts at the bedside
❌ Time consuming paperwork	✅ 53.5% faster observations - releasing nursing time to care
❌ Resource intensive audits	✅ Automatic, rapid reporting - clear traceability
❌ Staff access to PCs or tablets	✅ No PC needed - send data directly from the obs machine

Error Reduction

Although error reduction was not measured as part of this study, ICH sees significant value in improving accuracy through electronic vitals documentation.

According to Gerry Bolger, clinical lead for nursing informatics at ICH:

“When vital signs are recorded on paper or manually entered into the EMR transcription errors are common; studies show this can be as high as 17%.”

By reducing the need for manual input we have reduced errors and delay, helping us improve accuracy and serve our patients better as a result.”

Conclusions

ICH staff and patients alike are benefiting from automated vitals documentation and EMR connectivity. 53.5% faster documentation gives caregivers more time to spend on direct patient care and management feel more confident in the accuracy of the data entered into the EMR.

Vitals are now documented without delay, enabling caregivers to respond to signs of patient deterioration faster.

Key Outcomes

- 53.5% faster to document vital signs
- Visibility of patient vitals across Trust
- Transcription errors reduced