

Case Study



Royal Free London NHS Foundation Trust Enhances Patient Care by Boosting Observation Round Productivity and Improving Infection Control with Mobile Computing Solution

Overview

Region: United Kingdom
Industry: Healthcare

Customer Profile

[Royal Free London NHS Foundation Trust](#) plays a leading role among UK hospital trusts. The trust offers an exceptionally wide range of local and specialist services, including cancer, plastic surgery, vascular, haemophilia and infectious diseases and is proud to have some of the best clinical outcomes in the country. The trust sees around 700,000 patients a year from all over the world.

Business Situation

The bulky, awkward design of a laptop on a large trolley prevented bedside access and frustrated the attempts of Royal Free to seamlessly embed technology into its clinical processes. Data input for patient records remained cumbersome and time-consuming. The use of laptops meant not only an increased likelihood of breakdowns but also required a great deal of time to ensure infection control protocols were kept up to the required standard.

Solution

The Royal Free began using [Motion® C5 Tablet PCs](#) and [Cerner's](#) electronic health record (EHR) in June 2008 and has continued its roll out and investment, with the most recent stage being a further 48 C5v Tablet PCs purchased in March 2012.

Benefits

- Fast data entry directly into the shared EHR system at the patients' bedsides
- Eliminates a great deal of data entry duplication
- Increases observation round productivity

"We look to embed technology into the clinical processes to improve patient care. By shifting paperwork out of the wards and standardizing on Motion Tablet PCs running the Cerner EHR, we've found the impact goes way beyond efficiency – it's improved the quality of care delivered and opened up new options for how we work."

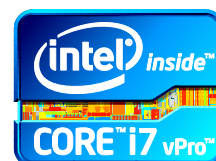
Will Smart, director of information management and technology, Royal Free London NHS Foundation Trust

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The selection process has been guided by a pragmatic "emergent" IT strategy that uses tightly focused pilot schemes to evaluate the potential impact of new or extended IT investments. A Clinical Advisory Group, comprising medical, nursing and IT staff, specifies the requirements for the solution and consequently evaluates the Motion C5v Tablet PC running the EHR application in a series of workshops.

This thorough grounding in the realities of day-to-day operations has been critical in delivering many of the benefits of the C5v Tablet PC and Cerner EHR solution.

Nurses and medical staff have fast data entry directly into the shared EHR system at the patients' bedsides. This eliminates a great deal of data entry duplication and increases observation round productivity – in the first nine days of the project, over 700 observation rounds were made – as well as compliance with Care Quality Commission (CQC) best practices.



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Overview

[Royal Free London NHS Foundation Trust](#) plays a leading role among UK hospital trusts. The trust offers an exceptionally wide range of local and specialist services, including cancer, plastic surgery, vascular, haemophilia and infectious diseases and is proud to have some of the best clinical outcomes in the country. A regional centre for kidney and liver diseases and a major transplantation centre, the trust sees around 700,000 patients a year from all over the world.

In dealing with such a diverse set of patients, the Royal Free has found mobile technology to be a key enabler in delivering clinical excellence at the front line of service. As a pioneer in the use of mobile computing, the trust has developed a strong relationship with [Motion Computing®](#) and [Tracline](#) based around the use of [Motion® C5v Tablet PCs](#).

One of the cornerstone projects of this relationship has been the use of Motion C5vTablet PCs running the [Cerner Millennium®](#) integrated electronic health record (EHR) system. This solution has become a critical component of the Royal Free programme of exemplar areas of clinical care excellence.

Challenge

Royal Free London NHS Foundation Trust has long recognised the potential use of technology and mobility in healthcare. Desktop PCs gave way to laptops situated on carts on wheels (COWs) some time ago. However, despite the advances made, limitations remained.

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Solution

Having looked at the tablet form factor in Accident and Emergency (A&E), the Royal Free began using Motion C5 Tablet PCs and Cerner’s EHR in June 2008 and has continued its roll out and investment, with the most recent stage being a further 48 C5v Tablet PCs purchased in March 2012.

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Throughout the selection and implementation process, the Royal Free worked closely with Motion partner Tracline UK Ltd. Tracline has been providing IT products and related services for over 25 years, during which time the company has grown to become the UK’s leading healthcare solutions provider. Tracline is a longstanding Motion partner, helping deliver complete mobile point-of-care solutions throughout the UK.

Tracline has partnered with the Royal Free to provide a comprehensive mobile project. Deploying the Motion C5v Tablet PC and Cerner Millennium, Tracline identified the need to improve clinicians and patients input, driving a better standard of patient care.

Results

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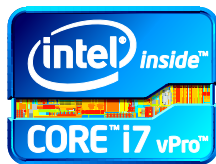
Ward managers have more accurate insight into “live beds,” tracking not only the number of available beds but also the location of a given patient – an important consideration for infection control.

Communication with support services such as portering and estates has improved, as they can be contacted directly via the tablets as nurses are on rounds. This real-time communication has accelerated the resolution of issues, such as faulty facilities.

Of particular importance to the Royal Free are the C5v Tablet PC’s features, including:

- The size and portability allow the nurses to access and gather information directly at the point of care. Previously, the nurses could not take the bulky COWs bedside.

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- The sealed design is easily cleansed and disinfected with standard cleansers, ensuring compliance with infection control.
- A fully ruggedised design, complete with carrying handle, results in fewer IT calls for broken hardware.
- Digitizer pen input allows for rapid note taking as well as accuracy for small target applications.
- [Advanced Technical Support's ReadyDock™](#) docking and charging solution saves space in busy wards and ensures the tablets are fully charged and ready for use.
- The integrated [smart card reader](#) enables Royal Free to have a secure identification process for patient data access that complies with best practices.

As a Microsoft® Windows®-based tablet, the C5v Tablet PC enables full use of and compatibility with the Windows-based Cerner EHR application and simple, secure integration with the network infrastructure across the hospital.

Tracline has also assisted in extending the solution to the midwives at the Royal Free Hospital, enabling them to access patient data from GP surgeries, clinics and walk-in centres. The flexible working afforded by this extended solution and the on-going support from Tracline has improved the efficiency and agility of the midwifery team whilst improving its ability to provide an award-winning service.

Conclusion

“We look to embed technology into the clinical processes to improve patient care,” comments Will Smart, director of information management and technology, Royal Free London NHS Foundation Trust. “By shifting paperwork out of the wards and standardizing on Motion Tablet PCs running the Cerner EHR, we’ve found the impact goes way beyond efficiency – it’s improved the quality of care delivered and opened up new options for how we work. And this is just the start, we have plans for dynamic, responsive operation scheduling based on anaesthetists being equipped with the tablets and deploying the technology in pre-operative assessments. You don’t make those sorts of plans unless you have a great deal of confidence in both the technology and strategy.”

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