County Durham and Darlington NHS Foundation Trust take a collaborative approach to benefit from groundbreaking integrated systems

Imprivata Mobile Access Management enables enable seamless access to patient data and integrated healthcare systems via mobile devices, to meet the pressing needs of an ambitious and innovative organisation

Organisation snapshot

County Durham and Darlington NHS Foundation Trust (CDDFT) is one of the largest integrated organisations in the UK, providing hospital and community services to a population of over 650,000. It has a workforce of over 7,000 and views itself as an ambitious and innovative organisation.

NHS
County Durham and Darlington
NHS Foundation Trust

Challenge:

- Many different clinical applications were being newly deployed as part of a new EMR requiring clinicians to repeatedly log in and out of applications using hand-held devices

- Prior to the implementation of the EMR, access to multiple systems and applications by frontline clinicians at the point of care entailed challenging clinical workflows, resulting in frustration and stress

- Use of mobile solutions was growing rapidly and the trust was keen to manage the process to gain maximum benefit from the investment in mobile devices

Solution:

- Big bang implementation of a unique technology stack including solutions from Oracle Health, Zebra, Samsung, Medanets, and Imprivata

- Adoption of Oracle Health Millennium EMR

- Use of 1,000 Zebra mobile devices and integration of existing Samsung devices

- Expansion of the use of Imprivata solutions to include Imprivata Enterprise Access Management, and Imprivata Mobile Access Management

Results:

- Patient records and multiple systems have been integrated into a single solution, providing a more accessible, single source for patient data

- Clinicians and nurses have more time to spend with patients and at the bedside

- Clinical workflows responsive to the needs of patients at the point of care are being delivered e.g. common tasks entailing recording and referencing of observations, care activities and diagnostics is being made readily accessible without disrupting patient care

- More efficient workflows leading to reduced workloads, frustration, and stress, while supporting the adoption of new technology and access to clinical data to inform patient care

Overview

County Durham and Darlington NHS Foundation Trust (CDDFT) is one of the largest integrated organisations in the UK, providing hospital and community services to a population of over 650,000. It has a workforce of over 7,000 and views itself as an ambitious and innovative organisation.

CDDFT provides hospital services from two acute sites – Darlington Memorial Hospital and University Hospital of North Durham. It has a centre for planned care and rehabilitation in Bishop Auckland and also provides care from community hospitals in Chester-le-Street, Shotley Bridge, Barnard Castle, Sedgefield, and Weardale. In addition, there are over 80 other community-based settings, as well as care provided in patients' homes.

> **"Feedback from ward teams was that anything we could do to reduce pressure would be a tremendous help. Integrated access to our multiple systems makes workflow more efficient and much easier for our staff. In turn this has reduced pressure meaning staff are more focused on providing the right care for patients."**
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> – Lisa Ward, Associate Director of Nursing (Patient Safety) & CNIO, CDDFT

Challenge: Working with many unintegrated systems was inefficient and stressful, and left staff without an overall view of patient data

Like all other organisations across the NHS, CDDFT faced numerous workforce challenges as the UK moved out of the COVID-19 pandemic and the existing unintegrated systems were adding to the pressure and frustrations. Clinical workflows were not efficient as staff had to log in and out of multiple systems many times during shifts as they provided care, took readings, accessed records, and requested tests. While mobile devices were being deployed to help nurses at the point of care, without a single interface to the EMR and other clinical systems, workflows were still not streamlined for clinicians or patients.

These inefficiencies meant staff workloads increased and the possibility of errors and data inconsistencies multiplied. Nurses were already heavily using mobile applications which were to rapidly multiply and therefore the requirement for the nursing workforce was that these be better integrated and that there should be a single sign-on capability to make their use more efficient and secure. This was a primary requirement for any new overarching solution and one which had a major influence on user acceptance and project success.

Solution: A big-bang implementation of a unique and innovative technology stack, with a collaborative approach

CDDFT prides itself on being innovative and ambitious, and these traits were very evident when they called in specialists from a number of leading healthcare providers to help build a new, integrated solution stack to address their growing issues.

The new technology stack integrated solutions from healthcare technology vendors including Oracle Health, Zebra, Samsung, Medanets, and Imprivata. The overall system implemented was made up of:

- Oracle Health electronic healthcare platform for EPR

- Oracle Health CareAware® which enables interoperability between medical devices, healthcare applications, and the EPR

- Medanets mobile application for clinicians

- 1,000 Zebra mobile devices and legacy devices from Samsung

- Imprivata Enterprise Access Management and Mobile Access Management

Each piece of the jigsaw puzzle brought proven excellence to the complete picture but had not been implemented together before. A highly collaborative, open culture was fostered to speed up mutual learning as well as the design and build of this unique combination of technologies. Furthermore, the team at CDDFT chose a bold, big bang implementation to bring the solution to as many of the workforce as quickly as possible.

CDDFT management, clinicians, and technical teams worked closely together with professionals from the technology providers. The Imprivata Clinical Team were brought in for two discovery sessions to focus on how best to address the challenges of safe, simple, and secure mobile participation in clinical workflows. Based on these workshops, clinicians, CDDFT IT, and the technology providers all worked very closely together to design a solution tailored to the specific needs of the trust and this collaboration continued into the system configuration, some of which was done remotely.

Testing brought everyone together on site in August 2022. It was crucial to the ultimate success of the project that front line personnel were involved in this testing. As the project neared its end, the clinical teams tested the integrated workflows that encompassed solutions from across the multiple vendors. Not everything worked together immediately, but CDDFT IT and the technology vendors worked in tandem to resolve any issues, learn from what had happened, and always focused on moving forward to ensure ultimate success. CDDFT management created the feeling that everyone was part of one team, with a mesh of clinical and technical personnel rather than separate camps with different interests.

The big bang go-live went ahead as planned in October 2022. The project met objectives and was viewed as a great success.

Results: An integrated system with easy access has reduced frustrations and increased efficiency

Patient data and multiple systems are now integrated into a single solution which delivers a more accessible, single view of the patient. The new technology stack has delivered seamless workflows to the staff on the wards, making them more satisfied and efficient. Clinicians have more time to spend with patients and at the bedside. Patients feel happier as they will not have to keep sharing the same information multiple times with different healthcare professionals as they progress through the health and social care system which is becoming ever more integrated.

The implementation has shown that it was right to be bold and plan a go-live with the solution in its entirety. The Imprivata elements of the solution are viewed as the easiest components of the whole project, as they are regarded as simple to understand, and intuitive to deploy and use. Having used mobile solutions since 2016, the nursing team was adamant that single sign-on had to be part of the new integrated system enabling 'tap and go' access to all the apps. The Imprivata solutions have made this a reality, providing the right level of simple, secure, and auditable access wherever staff are working.

The solution, which was enthusiastically embraced, with some 600 daily users of the mobile devices, has demonstrably removed barriers. The workforce no longer has to think about the technology and switching between multiple systems during their shifts. They can now concentrate fully on providing the best patient care possible. The Imprivata solution has become so embedded that it is now almost invisible to clinicians.

"…our electronic patient record went live in October (2022) and what that means is that our patient records and many of the different systems we previously used have come together into one integrated system.

It means that our clinicians and nurses have more time to spend with patients and at the bedside. Patient information is more accessible and in one place for healthcare professionals to access. It also means that our patients don't have to keep sharing the same information many times with different healthcare professionals but are able to only 'have to tell their story once."

– Sue Jacques, CEO, CDDFT

"The Imprivata tap-in, tap-off process has become very much normal practice for our staff. No-one talks about it because it's quick, it gives them access at the bedside as they need it. Now it's like it's always been there. It is only mentioned when staff are frustrated by having to work in an area which has yet to implement single sign-on."

– Digital Matron, Emma Arrowsmith, CDDFT

Now that the electronic medical record is in place with easy access via mobile devices to an integrated system, CDDFT continues to prioritise clinical workflow efficiency, and is evaluating how evolving technology solutions can support existing — and new — workflows. The trust's ethos of innovation and ambition continues. It has been bolstered by the success of its approach in how to embrace and benefit from leading edge solutions by implementing via a bold, collaborative approach.

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Imprivata delivers simple and secure access management solutions for healthcare and other mission-critical industries to ensure every second of crucial work is both frictionless and secure. The Imprivata platform of innovative, interoperable access management and privileged access security solutions enables organisations to fully manage and secure all enterprise and third-party identities to facilitate seamless user access, protect against internal and external security threats, and reduce total cost of ownership.

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