The Rotherham NHS Foundation Trust Improves A&E Integration and Interoperability With MEDITECH's EPR

Introduction

Known for being progressive, The Rotherham NHS Foundation Trust recently became one of the first of the UK trusts to place their accident and emergency department (A&E), urgent care center, and certain primary care offices under one roof. This move to a new physical location coincided with the decision to integrate their A&E and hospital under a single MEDITECH EPR. The trust simultaneously expanded interoperability efforts with the NHS and other vendor systems.

SNAPSHOT

Opportunity

Uniting A&E, urgent care, and certain primary care offices under one roof required an integrated and interoperable A&E solution.

Solution

MEDITECH's Emergency Department Management

Benefits

- Faster triage and prioritization of patients
- A&E visit details included in the patient record
- Easy access to letters from the trust with additional information
- Integrated diagnostic reports for quicker insight and improved communication
- Interfacing to the NHS demographic system to ensure all patients are identified and assigned NHS numbers for point-of-contact verification
- NHS number verification in the A&E increased from 85% to 99%
    - Reduced penalties saved £153,300

Profile

Located in South Yorkshire, England, Rotherham NHS Foundation Trust provides a wide range of health services to the Rotherham community and beyond. The trust, which sees approximately 100,000 A&E patients per year, opened its new Urgent and Emergency Care Centre in July 2017.

Taking the Lead in A&E

In the UK, the NHS Five Year Forward View outlines how the healthcare industry must change to meet increasing quality care standards for growing populations. The strategy argues for a more engaged relationship between providers and patients in an effort to promote wellness and manage chronic conditions.

For The Rotherham NHS Foundation Trust, achieving the nationwide goal of greater patient engagement came in the form of opening its new Urgent and Emergency Care Centre in July 2017. The new facility houses urgent care, A&E, and primary care services, all under one roof — an accomplishment that serves as a model for other NHS trusts to follow. But Rotherham overcame a series of challenges to become successful.

- Construction of the new emergency care center would take 18 months. During that time, clinical leaders and IT were forced to design workflows for both their temporary facilities, which were not suited for A&E, and a new building that they had never seen before.

- Although many of Rotherham's systems did not "talk" with one another, their GP system in particular struggled with interoperability.

- Working in-house with clinicians from various disciplines and with different levels of software experience resulted in opposing viewpoints and initial resistance to change.

To support its combined urgent care and A&E center, Rotherham needed a software solution that would comply with evolving processes, ensure efficient communication, and meet the needs of all primary stakeholders.

Implementing a New Solution in a New Facility

To help drive this project, the trust selected MEDITECH's Emergency Department Management solution due to its inherent integration with their MEDITECH EPR and its proven track record for interoperability. Rotherham had full backing from informatics, as their IT team already knew how to run MEDITECH, putting them one step ahead to support implementation in the A&E.

Triage Process

During the implementation, Rotherham clarified their built-in triage process to ensure the EPR setup clearly displayed the priority of patients' treatments based on the severity of their conditions.

Rotherham uses clinicians to triage patients as they arrive and can admit patients to specialty departments as needed. When all triage systems are busy, patients go to the major trolley area, where they are seen by nurses. These patients are then received and triaged. Since all staff are trained in the triage process, they can react accordingly with favorable results, often turning patients around within an hour.

Interoperability

Quickly identifying patients and matching them to their health records — one of Rotherham's primary goals — was achieved through interoperability with the NHS

Personal Demographics Service (PDS). Rotherham was the first trust to link their records to the PDS, providing a roadmap for other trusts to follow. A&E staff could easily locate and match patients in MEDITECH. Once patients were accurately matched, they could then link to the NHS spine for patient demographics and retrieve NHS numbers from the PDS.

Upon interfacing to the PDS, Rotherham nearly eradicated unknown matches and missing numbers, increasing NHS number verification in the A&E from 85 percent to 99 percent. Because the NHS charges an approximate fine of £10 for each patient who is unmatched to an NHS number, penalty reductions alone resulted in a savings of £153,300 .

Other systems Rotherham has been able to connect to include:

- Interfacing with GP system to pull problems, medications, and allergies directly from GP systems into MEDITECH.
- Launching into the Medical Interoperability Gateway (MIG) to view a summary of the care record.
- Connecting to the Health Gateway used by the South Tyneside and Sunderland NHS Foundation Trust to pull data into MEDITECH. This connection eliminates the need for staff to leave the EPR and log into another system.

> A&E increased NHS identification number verification from 85 percent to 99 percent. Penalty reductions for missing or unmatched numbers alone resulted in a savings of £153,300.

Encouraging Buy-in

The trust felt it was important to include all voices in the decision-making process when adopting the system. This strategy ultimately led to better buy-in. Objections to the new software were taken into account; suggestions and ideas that would mitigate concerns were incorporated into the solution to facilitate its acceptance.

These efforts set the right tone from the beginning, promoting a unified implementation. Ironically, one of the biggest critics at the project's outset became the symbol of change during the decision-making process; his involvement as the user experience lead helped gain buy-in from the entire organization.

Results from A&E Integration and Interoperability

> "It is so valuable to have A&E information in one patient record. We never had that before. Things are better with MEDITECH and we've gained a lot. It's good for patients and good for care."
>
> Laura Mumby, Head of EPR
> Rotherham NHS Foundation Trust

After implementing MEDITECH, Rotherham experienced automation benefits for both the trust and the A&E.

Benefits for the Trust

- Accessing electronic patient records that are immediately available, rather than relying on paper copies, has proven invaluable.

- When patients are admitted from the A&E, hospital clinicians can review A&E visit details, resulting in smoother care transitions.

- Since all services are triaged under the same roof, clinicians can see if patients previously visited other clinicians for the same reported problem.

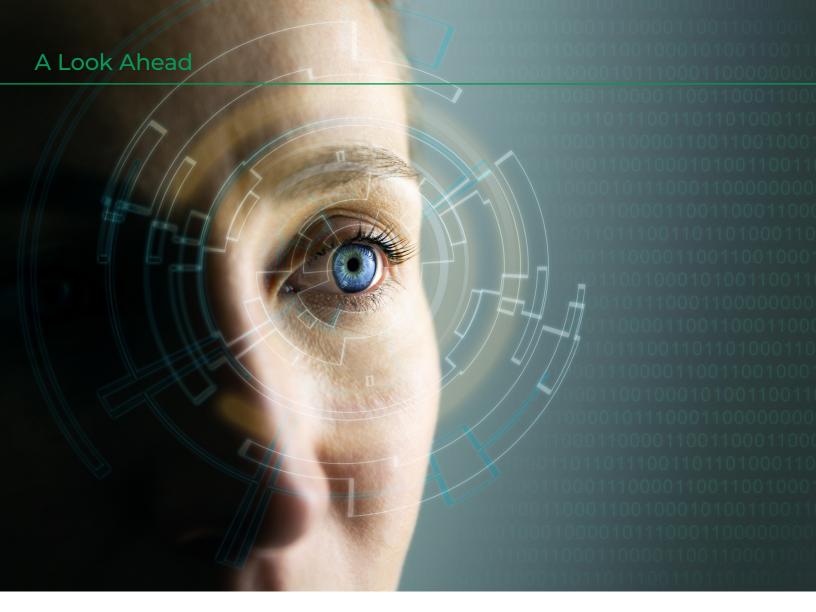- Patients have one source of truth for hospital and A&E care.

Benefits for the ED

- A&E physicians can make more informed decisions with access to complete patient records, including the ability to read letters containing additional information from the trust.

- Rotherham's A&E now has access to integrated lab and radiology reports. They can send electronic requests directly to hospital departments for processing and no longer have to wait for faxed or paper results. This provides for quicker insights, shorter wait times, and improved internal communications.

- Results no longer need to be typed into the A&E system, as they automatically flow from Lab and Radiology.

Tracking Patients Who Frequent the A&E

The A&E has included a flag for children who have had multiple attendances over the last three months, or have had a mental health sequence in the A&E. Trusts now document in the discharge summaries if patients are frequent attenders; the documentation flags different departments, which contributes to more efficient screening.

A Look Ahead

Building on the success of its interoperability projects, Rotherham has undertaken several initiatives to further expand connectivity to the MEDITECH EPR. Projects currently underway include:

- Deploying a context-sensitive launch into other vendor GP systems to view a summary of care record.

- Bringing ambulance records into MEDITECH through the Yorkshire Ambulance Service (YAS), so the A&E staff will have the information available when the patient arrives.

- Interfacing to child protection services (CPIS), whose database is accessible directly from the registration clerk's workflow.

Rotherham's leaders anticipate that these initiatives will improve patient engagement and quality of care beyond their initial expectations, when the trust first moved its A&E and urgent care centers under one roof, with a shared MEDITECH EPR. As these expansion efforts are rolled out, they will solidify Rotherham's position as an exemplary blueprint for the NHS.