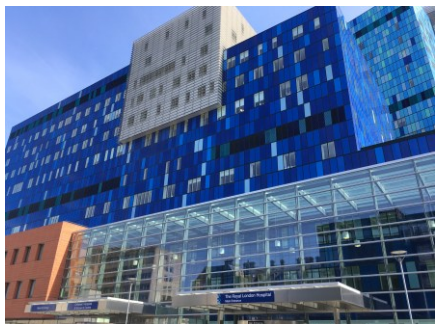




Customer

The Royal London Hospital

Location

London, UK

Solution

Connected patient monitoring

Customer Profile

The Royal London Hospital is one of the biggest hospitals in London with 1,248 beds. It is home to a major trauma centre, hyper-acute stroke services, and the London Air Ambulance, providing cutting-edge complex surgery, critical care, renal services and dentistry.

In 1994, it joined with St Bartholomew's Hospital, creating what is now known as Barts Health NHS Trust. The Trust includes five hospitals which together serve a diverse population of 2.5 million people in East London and beyond, including 6,200 patients every day with more than 1,500 A&E visits daily.¹

Introduction

The Royal London Hospital treats highly complex patients. Medical decisions rely on multiple data sets from multiple devices. Traditionally these data sets had only been visible at the bedside and on separate device screens, making it harder for clinical teams to collaborate and identify patient deterioration early. Thanks to a multi-disciplinary taskforce spanning several departments, the Adult Critical Care Unit has acted as the Trust's blueprint for digital transformation in clinical areas. Now the team is refining workflows to make patient data more easily accessible so clinicians can respond faster to changing patient needs.

Challenges

- **Data Collection:** Patient data was manually logged, which was time-consuming, prone to errors and omissions, and made it difficult to detect patient deterioration.
- **Inefficient Communication:** Patient data could only be viewed at the patient bedside, impeding cross-disciplinary clinical decision-making.
- **Disparate Data:** The management of highly complex patients requires sophisticated invasive and non-invasive monitoring across multiple devices, but there was no way to review all patient data in one place.

“ Our integrated data links across prescribing, pathology and radiology, so we now have insights into our patient journeys. We can also make decisions about patients anywhere in the organisation, as opposed to just being in front of the patients at the bedside. We are now able to analyse data in near real time and provide better care for all of our patients, across all sites.

”

Dr James Pennington,
Consultant in Critical Care and Anaesthesia





“

It's now easier for nurses and the doctors to communicate with each other. We work in a massive unit with about 44 bed spaces, so if we have any concerns about a specific bed space, we can now relay to the doctors via a phone call and they can just look at the data there and then. They wouldn't have to go to a bed space, investigate, ask what's going on. It makes me more fulfilled as a nurse because I can now spend more time with my patients.

”

Vincent Peji, Staff Nurse

The Solution

- **EPR Integration:** Data from bedside devices is automatically uploaded to Royal London's Electronic Patient Records (EPR), reducing the administrative burden on staff and improving accuracy.
- **Central Data:** With data in one central location, caregivers from different departments know they are using the same live and historic patient data to inform clinical decision-making.
- **BeneLink:** Data from multiple devices, including third-party devices, can be viewed together on the BeneVision N Series monitors when working at the bedside. So far, the team has integrated data from bedside monitors, anaesthesia machines, ventilators, and renal replacement machines to make it easier to understand patient health.

Outcomes

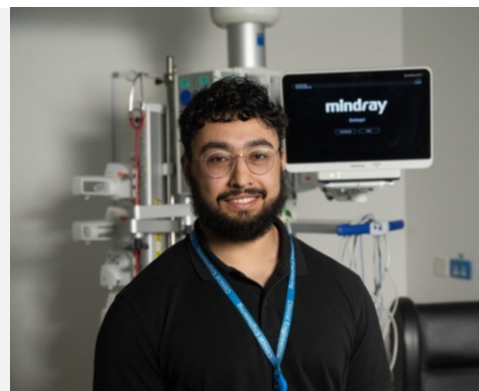
- **Real-time Analysis:** Clinicians can review historic patient data and waveforms like ECG, no matter where they are at any moment. Data can be shared with the relevant clinicians quickly across multiple teams for rapid decision-making.
- **Streamlined Workflows:** Nurses have more time to care for patients, assured that data is automatically recorded. They can also review data from multiple devices on one screen when working at the bedside, making it easier to determine patient health.
- **Continuity of Care:** All data is on the EPR. This acts as a single source of data from which multiple teams can review records and determine the right treatment quickly and efficiently.

“

The Mindray central monitoring system allows for easier connectivity without the use of external hardware. That allowed us to connect devices such as anaesthetic machines and ventilators directly to the Mindray monitor. The patient data is recorded automatically and that improves the accuracy and precision of the medical diagnoses that can be done.

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Munajj Islam, Senior Clinical Technologist



Conclusion

Device integration and connectivity at the Royal London Hospital has significantly enhanced clinical decision-making and patient care. Real-time analysis and streamlined workflows have allowed clinicians to respond faster to patient needs, ensuring better care across all sites.

The connected platform simplifies patient data access and management, enhancing communication and continuity of care for healthcare teams. Based on the success of this initial integration, the Adult Critical Care team plans to extend the number of devices that are integrated to include cardiac output monitoring, depth of anaesthesia monitors, and pump and infusion devices.