



CASE: ROYAL CORNWALL HOSPITALS NHS TRUST

WORKING TO IMPROVE OPERATIONAL EFFICIENCIES THROUGH HOSPITAL ASSET TRACKING

Royal Cornwall Hospitals NHS Trust was invited to participate in the governments' Scan4Safety pilot programme in 2016, making it one of the first six NHS Trusts in England to implement GS1 standards for the asset tracking and identification of patients, medicines and equipment.

"The initial success of the RFID tagging system enabled the Department of Clinical Technology to increase KPI performance by over 30%. The ongoing support from Lyngsoe has enabled us to expand on the initial use case and made the RFID system an integral part of the Quality Management System addressing a number of key considerations for successful ISO 13485 certification."

Adrian Rapson Department of Clinical Technology, Royal Cornwall Hospitals NHS Trust

A NEED FOR A HOSPITAL ASSET TRACKING SOLUTION

The Trust had a fleet of more than 20,000 mobile medical devices, but their existing system for recording assets was inadequate and, at the time, the Trust only had sight of about 8,000 items. This meant that the clinical engineering team spent a significant amount of time searching hospitals and wards for medical devices that required planned preventative maintenance (PPM) or urgent repairs.

As part of the Scan4Safety pilot, the Royal Cornwall Hospitals adopted the asset management software e-Quip. However, as e-Quip does not provide real-time location data, the Trust carried out a procurement process and instructed Lyngsoe Systems to deliver X-Tracking™, our GS1 approved, RFID hospital asset tracking solution, which can integrate with e-Quip and other asset management software to provide updated location data of medical devices.



IMPLEMENTING A REAL-TIME HOSPITAL TRACKING SYSTEM

We worked closely with the Trust's clinical engineering department to implement X-Tracking™ over a six-month period. The process of labelling medical devices and beds with RFID embedded barcodes enabled the team to carry out an audit of all the hospitals' medical equipment at the same time.

The deployment process was one of collaboration. Our dedicated healthcare team is not only expert in X-Tracking™, but it also has strong knowledge of e-Quip, so was on hand to provide advice and bespoke support in identifying and troubleshooting any issues that arose, particularly because the two systems were implemented in conjunction with one another.

As a result of the implementation of X-Tracking™, over 24,000 mobile medical devices were tagged across the Trust's hospitals and, as well as hand readers, we installed 120 ceiling mounted readers at logistical choke points throughout the hospitals.

IMPROVING RESULTS WITH SMARTER HEALTHCARE LOGISTICS

Using RFID technology, X-Tracking™ records the last known location of medical equipment via these readers and the clinical engineering department exports the data and shares it with clinical governance leads and technician teams to enable them to locate items that have an imminent due date from PPM. One of the KPIs against which these teams' performance is measured is device serviceability, which has increased from 60% to 95% on high risk medical devices since the implementation of X-Tracking™.

In addition to increasing the utilisation and safety of medical devices, the Trust has saved thousands of pounds on equipment that is leased and not directly owned by the hospitals.



Medical device with a GS1 RFID asset label and a Wi-Fi tag

One example is vacuum suction pumps, which can often end up going home with a patient and are therefore likely to be lost. Since the implementation of X-Tracking™, vacuum suction pumps have been tracked using a dynamic tagging method and several devices have been located, preventing the Trust from paying a fee for the lost devices, which can be as high as £4,000 per pump. Further savings have been made on equipment that is maintained by specialist contractors.

OPTIMISING AND FUTURE-PROOFING HOSPITAL OPERATIONS

Royal Cornwall Hospitals NHS Trust continues to develop innovative ways to use X-Tracking™ and is already experiencing improvements across many areas. As the clinical engineering department continues to use the hospital asset tracking solution, it is becoming more adept at maximising the opportunity and works closely with our dedicated healthcare team to continuously develop how X-Tracking™ is used. Following feedback from the Trust, we have custom built a new feature, which informs e-Quip if an item hasn't been located for a period of time, providing more accurate data for procurement. The Trust has also recently invested in Wi-Fi enabled passive readers for use in the community, enabling the tracking of devices that are frequently moved around remote hospital sites.

This collaborative approach allows us to support customers like Royal Cornwall Hospitals NHS Trust to get the most out of X-Tracking™ and continuously improve, making efficiency gains and enhancing patient care.



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