The challenge

Prior to the implementation of RFID, keeping track of beds and other medical devices at SaTH used to be a real challenge. With the trust affected by the same acute bed shortages seen across the NHS, locating beds quickly for maintenance and repair is of utmost importance to ensure the maximum number of beds is available at any one time. In addition, staff in the two manned medical equipment libraries – one at each hospital – found it difficult to keep track of loan equipment. At times, devices would be found sitting in cupboards requiring time and effort for technicians to locate via sketchy manual records. Clinical staff were also spending a lot of time looking for devices which may have been borrowed by other wards.

The solution

RFID Discovery provides SaTH with the ability to locate assets quickly. Each bed or device is fitted with an active RFID tag broadcasting its unique ID at regular intervals. Signals are picked up by fixed readers as well as mobile handheld readers used by clinical technicians to audit the wards. Information is then sent back to a central database which shows the location where each asset was last ‘seen’ by the system.

Michael Woffindale, Bed Technologist and RFID Specialist at SaTH, comments: “It’s fantastic seeing location data being updated so effortlessly by using the handheld readers, no more checking serial numbers or looking in cupboards to find specific pieces of equipment. We have seen a definite benefit from improved location data and our engineers use the handheld readers every day as they go out through the hospital.”

Currently the main ward blocks in the two hospitals are covered by fixed readers, with all other areas being covered by daily mobile scanning. With data from the fixed readers plus the use of a total of four mobile readers – two per hospital – the team regularly captures the locations of 95% of all tagged equipment.

“RFID Discovery enables our technicians to locate beds and other mobile devices quickly and so they can focus on their core tasks of servicing and repair.”

Nigel Watkinson, Medical Engineering Manager
Benefits

Nigel Watkinson, Medical Engineering Manager for the Trust, is responsible for the management of 12,000 mobile medical devices at SaTH. He explains: “RFiD Discovery enables our technicians to locate beds and other mobile devices quickly, so they can focus on their core tasks of servicing and repair.” After some initial doubts, clinical staff now really like the system as they are able to locate devices quicker and this means more time is available to deliver patient care. It has also reduced inter-ward movements eliminating the unwanted short-term ‘borrowing’ of devices which used to leave some areas short of equipment.

At the same time utilisation levels of devices have improved. This has helped re-established the trust of clinical staff that equipment is available when needed and put a stop to staff storing away devices for their department’s use which often exacerbated the issues surrounding device availability. Michael comments: “The system enables us to have the right equipment available without delay, which is great for patient safety.”

And RFID brings other advantages for patient safety, too: In case of an infection outbreak, the infection control team can now see where a particular bed or device has been, so it can be quickly located and replaced before further spread occurs. Similarly, if any beds or devices are reported as faulty it’s now much easier to identify and replace them to avoid any failure whilst they are in use. To ensure that beds are maintained according to schedule, the system flags up service dates. Michael explains: “Standard beds are normally serviced annually, but some specialist beds quarterly. Being able to look at the system each morning to see at a glance what needs to be repaired or serviced, makes our job so much easier and helps avoid potentially dangerous oversights.”

Michael also reports less expected benefits: “The amount of damage to equipment has gone down noticeably, because people know that we know where equipment has been.”

Future plans

Due to the success of the system, SaTH are extending the network of fixed readers to a total of 30 readers in the Shrewsbury Hospital and 28 in Telford, which means that even more equipment movements will be detected automatically and in real-time. Once all remaining fixed readers have been installed, the option for tracking other equipment is set to be made available to other departments, i.e. Estates, X-ray and even IT. This means that these departments will purchase tags using their respective budgets and be able to view location information on the central RFID software.

The Trust is currently looking at the requirement for GS1 compliance and considering the use of RFID enabled asset labels for all medical devices, to allow for quick and accurate auditing.

“The system enables us to have the right equipment available without delay, which is great for patient safety.”

Michael Woffindale, Bed Technologist