Improving patient safety through surgical instrument tracking at University Hospitals of Morecambe Bay (UHMB) NHS Foundation Trust

Richard Greenwood, Trust Decontamination Lead & Head of Sterile Services Trustwide

Background

University Hospitals of Morecambe Bay (UHMB) NHS Foundation Trust operates from three main hospital sites: Furness General Hospital in Barrow, Royal Lancaster Infirmary and Westmorland General Hospital in Kendal, and two further centres: Queen Victoria Hospital in Morecambe and Ulverston Community Health Centre.

Furness General Hospital and the Royal Lancaster Infirmary have a range of general hospital services, with full emergency departments, critical/coronary care units and consultant-led beds. Westmorland General Hospital provides a range of general hospital services, together with a Primary Care Assessment Service (PCAS) and GP-led inpatient beds, operated by Cumbria Partnership NHS Foundation Trust.

What was the problem?

As with many NHS Trusts, UHMB were faced with problems of managing surgical instrument stocks, migration of the instruments from sets, and tracking and tracing single instruments through the decontamination process back to the patient.
How was the problem solved?

UHMB investigated the options and technologies available. These included purchasing single-use disposable instruments, marking their own instruments in-house or sub-contracting to a specialist service provider.

They decided to keep it in-house and re-use the instruments they had. They decided on a technology called *dot peening* – ruling out other technologies such as laser etching and the use of info dots. They purchased their own marking machine and began a programme of marking all their instruments.

How were GS1 standards used to help deliver the solution?

UHMB chose to use GS1 standards, as these had been recommended by the Department of Health and detailed in the *Coding for Success* document.

UHMB started their programme of implementing GS1 standards, using unique GS1 GIAI identification keys, encoded in a GS1 DataMatrix 2D barcode. The choice of barcode was simple: GS1 DataMatrix is the only barcode that can be used to mark surgical instruments, due to its small size and its capacity to store all required information.

UHMB then purchased scanners to scan the instruments throughout the entire decontamination process.

What are the benefits?

UHMB are now able to identify every individual instrument, even if they have migrated from other instrument sets. They can track and trace all instruments used with each patient procedure – improving patient safety. And they now have an accurate and always up-to-date inventory of all instruments in use throughout the Trust.