



## Demonstrating success in healthcare

# Benefits of standards in the Irish National Decontamination Tracking System

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## Background

St James's Hospital is the largest acute academic teaching hospital in the Republic of Ireland and provides a comprehensive range of diagnostic and treatment hospital services to a population of over 300,000 people at local, regional and national level. Their vision is to be a leading healthcare organisation, nationally and internationally, by improving health outcomes through collaboration and innovation.

## What was the problem?

In Ireland, part of the code of practice on decontamination is that there should be systems in place to record the decontamination process for surgical instruments, and link them to the people on which they've been used. Patient Safety was at the heart of this and there was a clinical imperative to have traceability for high risk procedures.

## What was their solution?

The project to create a national traceability solution started in May 2008, with St James's chosen as the pilot site. The idea behind it was to create a globally unique coding structure that would mean the system could be rolled out across the country, with everyone sharing the same platform - it went live in July 2011.

Phase two of the project was to include endoscopes, so that there could be traceability there too.



Currently, it's the only national system globally that covers instruments and endoscopes. Again, patient safety was the driver.

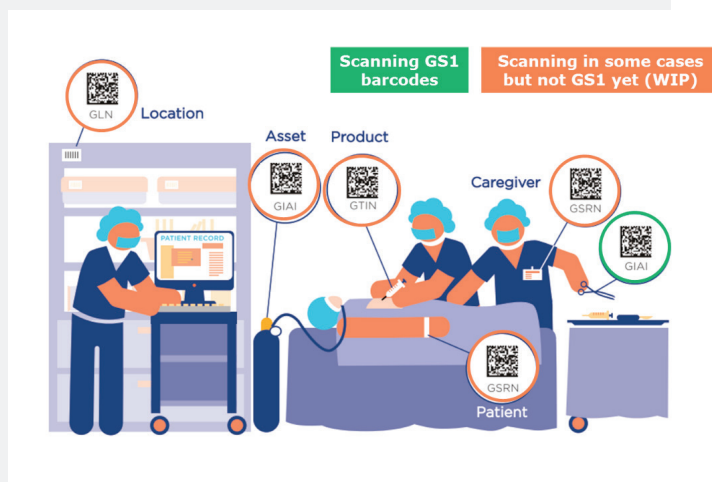
As part of this new system, St James's introduced GS1 GIAI (Global Individual Asset Identifier) codes for all their instrument sets, scanned at the point of use. When they create a new set, they assign it a unique GIAI code and upload it to a cloud database. It can then potentially be shared by other hospitals, who are also on the platform as part of the national system.

This diagram illustrates what is happening now at St James', with every instrument set getting scanned at point of use. The next stage will be for unique GS1 codes to be used for the patient, caregiver, product, assets and location.

When they started, the unit at St James's was processing about 25,000 trays a year and it's gone up and up every year. Part of this has been a natural increase in workloads but another part has been their ability to take on work from other areas. One example of this is that previously theatres would locally process rigid endoscopes used in laparoscopic procedures and would disinfect them in Steris machines. Now, they have invested in new scopes that are steam-sterilisable and also scan not just the product data of what kind of scope it was, but also the serial number that's individual to that scope. This means that they now effectively have an asset management system for scopes where they didn't have one before, and they can know how many they have, and where they are, at any one time.

Another benefit of scanning sets using a GS1 barcode is that now they scan every set that goes into a washer-disinfector and steriliser. This means they can know, at the press of a button, exactly what's in each washer, when it was put in, and who put it in. They can give real-time information back to whoever needs it. Clinicians got on board, after initial resistance, because they could really see the benefits of capturing information in this way.

Another area where GS1 barcodes have really come into their own for St James's is with their use on loan sets. When sets come in, often at short notice and in great volumes, there was a challenge to create traceability. Now, when they receive a loan kit that is GS1 coded, they're able to download data and have checklists and labels as if they were their own sets.



It also means they're able to scan these sets to the patient when they're used.

## Benefits

- Automatic tracking of instrument sets
- Easier to share loan sets, giving greater interoperability between hospitals, and more accurate and legible set lists
- Tray checklists are printed when scanned, giving an accurate and easily accessible version
- All records can be stored digitally and referenced post-event
- Linking the tracking system and theatre, closing the loop between patients and sets
- Scanning of instrument sets has improved workflow as the team now has to communicate and be more organised
- Reporting and management of set inventory is improved as they're doing more audits

## Next steps

Critical mass has now been reached with the project, with 90% utilisation of the tracking solution and some private hospitals also using the system. Manufacturers had a key role to play and more need to follow the leads set by DePuy Synthes (J&J) Ireland who were the first in Ireland to put GS1 codes on their loan set trays – also a first globally – and Olympus Medical, who were the first in Ireland to put GS1 codes on their endoscopes. The next step in the project is to implement tracking for patient implants.

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