

Practical use of barcode standards for patient safety and activity based costing in operating theatres

Risks to patient safety occur when there is a mismatch between a patient and the care they receive. Errors can occur at time of diagnosis, treatment or on-going care. When looking at how technology can improve patient safety, we don't need to look very far. The retail sector has demonstrated the value of adopting GS1 standard barcoding, which has reshaped these industries and created billions of dollars in value.



McKinsey & Co research states: "The potential impact enabled by global standards goes well beyond the use cases that we can identify and quantify today. For example, with global standards in place, payers, regulators and epidemiologists could learn more about the effectiveness of drugs, medical devices and treatments, improving health and yielding savings at the institutional and even national level." (Strength in unity: The promise of global standards in healthcare, October 2012).

New regulations on traceability of medical devices and pharmaceuticals in the EU, the US and elsewhere are driving a harmonised standard for identification in healthcare. Using global standards facilitates widespread interoperability among healthcare software applications and technologies. The barcode scan of a unique identifier is becoming the key to access information in the clinical system about a patient, product or service. In recognition of this the NHS eProcurement strategy has mandated that every product procured by an NHS Trust has to be identified with GS1 standards.

"As part of this strategy, DH will mandate through contracts the use of GS1 coding for the NHS." Better Procurement, Better Value, Better Care – A procurement development programme for the NHS, August 2013

In January 2016, the UK Department of Health announced the six chosen demonstrator sites following a "As part of this strategy, DH will mandate through contracts the use of GS1 coding for the NHS."

Better Procurement, Better Value, Better Care

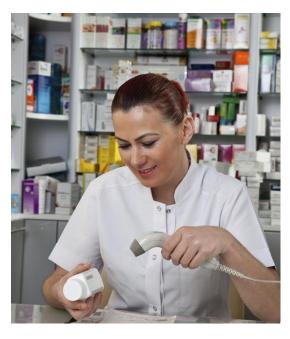
– A procurement development programme for
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nomination process. These trusts will act as the sites of excellence for the use of GS1 and PEPPOL (Pan European Public Procurement On-Line) standards. The sites chosen will receive support and a share of £12m funding from the Department of Health. Each site is expected to demonstrate significant efficiencies and cost savings, reduced errors, improved patient outcomes and enhanced patient safety from using the standards.



One of the six demonstrator sites, Derby Teaching Hospitals NHS Foundation Trust, is leading the way in this area. They have developed an in-theatre usage and procedure-level costing system. Using GS1 barcodes they can capture the details of the patient, staff, instrument trays, scopes, products, consumables, procedures and the time used in an operation, leading to a significant reduction in the volume of stock held and the ability to have accurate cost data. "Having worked in the retail industry, I understand the value of GS1 standards and how they can improve patient safety, and reduce costs at the same time, whilst providing real management information to address clinical variation." Kevin Downs, Director of Finance and Performance at Derby Teaching Hospitals NHS Foundation Trust.

When recalls take place, the Trust can now easily identify all products that are held within the Trust, thus preventing their use. But this process of scanning everything in the theatre has other benefits. Clinical staff are able to spend more time with patients. The rich data available facilitates 'fact based discussions' with clinicians and staff. Procedures are being coded more accurately and consistently so money is not lost due to missing procedure codes.



In Ireland, the HSE Procurement is following these developments and the benefits of unique identification are recognised. "The adoption of GS1 coding standards is viewed as a very important priority to ensure best practices and safety for patients." John Swords, Head of Procurement, HSE. A recent audit of the National Distribution Centre indicated that 79% of the products have a GS1 unique identifier (barcode) also known as the Global Trade Item Number (GTIN). The next step for the HSE is to use the GTIN to establish the essential link between healthcare items, pack sizes and product information and work is ongoing to put these foundations in place to enable improved patient safety and to support the implementation of processes such as scanning in theatres.

Background

GS1 is an international, neutral, not-for-profit organisation with operations in 112 countries around the world, including Ireland. The GS1 system of standards is the most widely-used system of supply chain standards, serving more than 2 million companies worldwide. It is recognised by organisations such as the International Organisation for Standardisation (ISO), and the European Committee for Standardisation (CEN).

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