GS1 Global Healthcare Conference - Mexico

CASE STUDY:
‘Innovative National Traceability in Healthcare using GS1 Standards’

HSE ICT – Pauline Biggane
21st April 2015
HSE Overview

Health Service Executive:

Population: 4.6 million (Republic)
Staff: 100,000
Budget: €13 billion
Hospitals: 52 Acute Hospitals
CDUs: 48
ERUs: 32

CDU = Central Decontamination Units
ERU = Endoscope Reprocessing Units
HSE ICT Overview

Director General
Tony O’Brien

Chief Information Officer
Richard Corbridge

ICT - Delivery Director
Seamus Butler

ICT Project Manager for RIMD/Endoscope Track and Trace
Pauline Biggane
In the news....

THE IRISH TIMES

July 2013

Helpline for patients with CJD concerns attracts 1,300 calls

Between 10 and 20 patients operated on with instruments used on patient with disease

“The HSE will contact up to 20 patients who were operated on using instruments which had been used on a patient who has been diagnosed with CJD disease”

Track and Trace?

The HSE will contact up to 20 patients were operated on using instruments which had been used on a patient who has been diagnosed at Beaumont Hospital with Creutzfeldt-Jakob (CJD) disease Photograph: Dara Mac Donaill/The Irish Times

In the news….

July 2013

Crumlin hospital apologises for contamination scare

"Hospital has apologised to 18 families who were wrongly identified as being at the centre of a contamination scare over a medical scope"

Decontamination Track and Trace - Timeframe

- Only National Traceability Solution (Instrument trays and endoscopes) in the world
- 90% of volume will be utilising the solution by end of Phase 2 in 2015 (32 Hospitals)
- Patient Safety was the key reason for implementation:

*Clinical imperative to have traceability for high risk procedures*
Overview of Instrument Set
Traceability

“Systems should be in place to record the decontamination process used on RIMD (tracking) and link them with service users on which they have been used (tracing)”


Project started in May 2008 – 1st “Go Live” site was St. James’s Hospital in July 2011
Innovative National Traceability in Healthcare using GS1 Standards

21% Increase in workload with less staff

Anecdotal evidence: Moved from 5,000 Transcriptions per day in one hospital
Tracking Stations

New Equipment

02/02/2012
Dataloggers

Linked to Tracking system
Tracking Instruments - Before

Manual Check
Tracking Instruments - After

Information available:
- Electronically & Post-event
Instrument Set Lists - Before

Paper based
Instrument Set Lists - After

Electronic, file printed when Tray is scanned
No need to search and certainty of document version
Eg: Printed Checklist
### Process Log - Before

#### Paper based

<table>
<thead>
<tr>
<th>DATE</th>
<th>NAME OF SET</th>
<th>THEATRE</th>
<th>LIST OF INSTRUMENTS</th>
<th>SIGNATURE</th>
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<td>21/11</td>
<td>Minimal Set No 2935</td>
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<td></td>
<td>Knee Var</td>
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<td>Minor Ortho 115</td>
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<td>Cardiac Set 46</td>
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<td>Micro Fine Drill Beam</td>
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<td>Pedicle Fixer 500</td>
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<td>Basic H/L</td>
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<td></td>
<td>CONTACT THE DENT 3871</td>
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</table>
**Process Log - After**

Electronic & Legible
Post-event – Can be retrieved at the touch of a button
Steriliser Cycle Record - Before

Paper based

Subject to deterioration over time
Steriliser Cycle Record - After

Electronic Post-event – Can be retrieved at the touch of a button
Tracking in Theatres - After

Electronic

- Post-event – Can be retrieved at the touch of a button
- Linked to instrument tracking system
# Example of Incident Investigation

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Code</th>
<th>Operator</th>
<th>Description</th>
<th>Machine</th>
<th>Cycle</th>
<th>Status</th>
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<td>ANDREW</td>
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<td>7001</td>
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<td>RUTH D</td>
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<td>01/10/2012</td>
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<td>PROF. REYNOLDS' INSTRUMENT SET-03</td>
<td>0</td>
<td>0</td>
<td>CREDIT</td>
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</tbody>
</table>
Loan Sets

The Big Challenge!!

- Shared among hospitals (contents always changing)
- Traceability is very challenging
Loan Set Checklists - Before

- Paper based
- No certainty that list matched tray contents
**Loan Set Checklists - After**

- Electronic
- Fully Legible
- Up to date
- List can be pulled from MS1 database just by scanning the tray
Loan Set – Example
1 Hospital during 1 week in Feb 2015

Which loan set would you rather process?

Not GS1 Coded
- 30 loan sets
- 60 reprocesses
- Huge paper trail
- Manual tracking
- Very time consuming
- Manual rekeying and transcription of data

GS1 Coded
- 4 loan sets
- 8 reprocesses
- Huge paper saving
- Electronic tracking
- Very time efficient
- Unique identification of set (GS1 barcode)
Key Benefits
Innovative National Traceability in Healthcare using GS1 Standards

Automatic Tracking of Instrument Sets
» No longer need to stick head in the washer

Much easier to share Loan Sets
» Interoperability between hospitals
» Lists more accurate and legible

Tray Checklists printed when scanned
» Accurate and right version, no longer need to search

All records stored digitally
» Can be referenced post-event, huge paper saving

Link between tracking system and theatre
» Closes the link between patients and sets reprocessed

Improved Workflow
» Scanning of instrument sets mean team has to communicate and be more organised

Reporting
» More reports (doing more audits), Enables asset management
Key Takeaways & Next Steps

» Critical mass has been reached
  o 90% utilisation of the tracking solution >> real benefits

» Role of Manufacturers/Loan Set Providers
  o Synthes were the first in Ireland to put GS1 codes on their loan set trays
  o Need more Manufacturers to follow this lead!

» Next Steps
  o Complete Phase 2 Instrument tracking and Phase 1 Endoscopy tracking
  o Implant tracking
Contact

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