GS1 Global Healthcare Conference
HPAC Working Lunch
Thursday 25th October 2012
Agenda

• Introduction – Janice Kite, Traceability Director, GS1 Global Office 10min

• Case Studies:
  • Andrew Smith, St James’ (Ireland) 15min
  • Tom Pereboom, Hospital Amstelland (Netherlands) 15min
  • Frederique Fremont, C.H.I. Robert Ballanger Hospital (France) 15min

• Open Q&A, Discussion - Feargal McGroarty, Tri-Chair 50 min
  • Questions for our presenters
  • Implementation Pain Points
  • Call to Action > Position Papers
Introduction

Janice Kite
Traceability Director Healthcare
GS1 Global Office
HPAC – Who?

Tri-Chairs – Clinical
• Feargal Mc Groarty FIBMS, Project Manager, IMS Dept, St. James’s Hospital, Dublin, Ireland

Tri-Chairs – Non-Clinical
• Martin Edwards, Director Information Systems, Health Purchasing Victoria – Australia

Tri-Chairs – GS1 Member Organisation (MO)
• Doris Nessim, Vice President Pharmacy, Patient Safety & eHealth, GS1 Canada

GS1 Facilitator
• Janice Kite MBA, Traceability Director Healthcare, GS1 Global Office
HPAC Objectives

• **Objective:**
  - Be a forum for sharing and discussing the practical realities of implementation of GS1 Standards in the care giving environment in regards to the impact on clinical care and patient interaction
  - To identify projects that support the adoption of GS1 Standards in Healthcare institutions and retail pharmacies
  - To identify best practices and case studies for publication, presentation and sharing
  - Be a source of expertise and provide feedback and advice to those involved in GS1 standards development, the wider Healthcare stakeholder community and senior executives/decision-makers to gain their buy-in and support for implementation of GS1 Standards

• **Scope:**
  - The Advisory Council will consist of thought leaders and early adopters of GS1 Healthcare Standards from the global clinical provider environment (e.g. hospitals, retail and hospital pharmacies, clinics, care homes etc.).
Objective: Be a forum for sharing and discussing the practical realities of implementation of GS1 Standards in the care giving environment in regards to the impact on clinical care and patient interaction

1. Lack of awareness in provider environment (Particularly C-Suite)
   ✓ Create C-Suite Slide Deck (*Top download from cRoom*)

2. 11 Pain Points (aka Implementation Realities)
   - 4 Process related (e.g. clinical dispensing of generic medicines; tender categories; reporting analysis; scanning meds in OR)
     - Highlighted but not solved by GS1 Standards Implementation
   - 2 Information Technology/Systems/Applications related
     - Common across the organisation; whichever systems involved (clinical, non-clinical/admin)
   - 5 Bar code symbol related
     - No bar code symbol present
     - Poor quality bar code symbol
     - Placement of bar code symbols
     - More than one bar code symbol
     - Non-Standard bar code symbols

✓ 2 Position Papers: IT/IS Interoperability; Bar Code Symbology Issues
   Launch and Call to Action at the end of the Hospital Plenary Session this Thursday!
Objective: Be a source of expertise and provide feedback and advice to those involved in GS1 standards development, the wider Healthcare stakeholder community and senior executives/decision-makers to gain their buy-in and support for implementation of GS1 Standards

1. Lack of awareness in provider environment (Particularly C-Suite)
   ✓ Create C-Suite Slide Deck (Top download from cRoom)
   http://community.gs1.org/apps/org/workgroup/gs1hpac/download.php/42550/latest

2. HPAC Monthly Calls
   ✓ Agenda items and on-going discussions

3. Need to do more...
• Objectives
  • Be a forum for sharing and discussing the practical realities of implementation of GS1 Standards in the care giving environment in regards to the impact on clinical care and patient interaction
  • Be a source of expertise and provide feedback and advice to those involved in GS1 standards development, the wider Healthcare stakeholder community and senior executives/decision-makers to gain their buy-in and support for implementation of GS1 Standards
  • To identify projects that support the adoption of GS1 Standards in Healthcare institutions and retail pharmacies
  • To identify best practices and case studies for publication, presentation and sharing

Current research/survey:
  Are the original objectives still relevant?
  Which will determine:
  What next for HPAC?
Agenda

- Introduction – Janice Kite, Traceability Director, GS1 Global Office 10min
- Case Studies:
  - Tom Pereboom, Hospital Amstelland (Netherlands) 15min
  - Andrew Smith, St James’ (Ireland) 15min
  - Frederique Fremont, C.H.I. Robert Ballanger Hospital (France) 15min
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  - Implementation Pain Points
  - Call to Action > Position Papers
St James’s Hospital
Andrew Smith, HSSU

Innovative National Traceability in Healthcare using GS1 Standards
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

17% Increase in workload with less staff
**Issue(s)**

- Ineffective traceability of surgical instruments from theatre through to hospital sterilisation process
- Time wasted on manual processes (searching for instruments, documentation etc.)

**Solution**

- Implementation of an integrated tracking and **traceability system**
- Identification of Instrument Trays using GS1 numbers
- Implementation of GS1 Standards, including GTIN, GLN and Global Traceability Standard

**Results**

**Effective traceability of surgical instruments during sterilization process**

- Reduced manual effort and increased efficiency due to automation
- Increased inventory management – better stock visibility
- Increased traceability from theatre through sterilisation
- Improved workflow through automation/scanning
- Process to share loan sets much more efficient and effective

**Cost:** Setup cost: €47k, Ongoing maintenance: €7.5k p.a.  
**Return:** 17% increase in workload with less staff
Tracking Stations

New Equipment
Dataloggers

Linked to Tracking system
Tracking Instruments - Before

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

Paper based
Instrument Set Lists - Before

Hard to find the right file and right version
Instrument Set Lists - After

Electronic, file printed when Tray is scanned
No need to search and certainty of document version
### Printed Checklist

<table>
<thead>
<tr>
<th>Description</th>
<th>Off</th>
<th>Check</th>
</tr>
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<tbody>
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<td>SIDE ARM</td>
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<td></td>
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<tr>
<td>INTERLOCKING BRACKET WITH HOLE FOR KEY</td>
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<tr>
<td>SCREW</td>
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<tr>
<td>BLADE</td>
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Place a tick in the box as required

9 Items in this set.
Eg: Instrument Tray Label
### Process Log - Before

#### St. James’s Hospital

<table>
<thead>
<tr>
<th>Date</th>
<th>Name of Set</th>
<th>Theatre</th>
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<td></td>
<td>Thelun Hyster 529</td>
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<td></td>
<td>Basic VAS 240</td>
<td>T</td>
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<td></td>
<td>Minor Abdon 282</td>
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<td></td>
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<td>Contact Are Dine 5831</td>
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*Paper based*
## Process Log - After

| Number Of Items | 20 |

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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 - Before

Paper based
### Document List Report

<table>
<thead>
<tr>
<th>Code</th>
<th>Lot No.</th>
<th>Quantity</th>
<th>Operator</th>
<th>Type</th>
<th>Item</th>
<th>Supplier</th>
<th>Remarks</th>
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<tbody>
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<td>%JESSIE S</td>
<td>TRACKER</td>
<td>BASIC CARDIAC SET-04</td>
<td>STERILE SERVICES</td>
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<td>1003774</td>
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<td>TRACKER</td>
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<td>STERILE SERVICES</td>
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<td>%JESSIE S</td>
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<td>STERILE SERVICES</td>
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<td>TRACKER</td>
<td>STERNAL SAW BATTERY POWERED-01</td>
<td>STERILE SERVICES</td>
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**Number Of Items:** 4

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<tr>
<td>1002962</td>
<td>00001</td>
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<td>%JENNIFER I</td>
<td>TRACKER</td>
<td>CHAUX RETRACTOR CARDIAC-01</td>
<td>STERILE SERVICES</td>
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**Number Of Items:** 1

**Total Items:** 5

**Document Number:** T200242  **Patient ID:** 1087474  **Theatre:** THEATRE 2

**Document Created By:** %JESSIE S  **Date & Time Created:** 02/02/2012 14:14:33

**Document Number:** T200243  **Patient ID:** 1087474  **Theatre:** THEATRE 2

**Document Created By:** %JENNIFER I  **Date & Time Created:** 02/02/2012 15:29:26

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**Tracking in Theatres - After**

Electronic Post-event – Can be retrieved at the touch of a button

Linked to instrument tracking system
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 Tracking in Theatres

<table>
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<tr>
<th>Document Number: D100920</th>
<th>Patient Id: 1018678</th>
<th>Theatre: DAY THEATRE 1</th>
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<tr>
<td>Code: 1002499</td>
<td>Lot No: 100004</td>
<td>Quantity: 1</td>
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<td>Operator: NAZENDA J.P.</td>
<td>Type: TRACKER</td>
<td>Issue: BASIC PLASTIC SET DISC-01</td>
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<tr>
<td>Supplied:</td>
<td>Remarks: STERILE SERVICES</td>
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| Code: 1002499 | Lot No: 100004 | Quantity: 1 |
| Operator: NAZENDA J.P. | Type: TRACKER | Issue: FINE COTOSTOME SET DISC-02 |
| Supplied: | Remarks: STERILE SERVICES |

| Code: 1002499 | Lot No: 100004 | Quantity: 1 |
| Operator: NAZENDA J.P. | Type: TRACKER | Issue: MICRO-ARE SMART DRIVER DISC-02 |
| Supplied: | Remarks: STERILE SERVICES |

Number Of Items: 3

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<td>Operator: NAZENDA J.P.</td>
<td>Type: TRACKER</td>
<td>Issue: AC COMPACT HAND SET, TYH</td>
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<tr>
<td>Supplied:</td>
<td>Remarks:</td>
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Number Of Items: 1

Total Items: 4
# Example of Reports # 1

**From:** 02/02/2012  
**To:** 02/02/2012  
**ST JAMES'S HOSPITAL DUBLIN**

## 01: Machine Detailed Report

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<th>Description</th>
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<th>Qty</th>
<th>Loaded By</th>
<th>Date In</th>
<th>Time In</th>
<th>Unloaded By</th>
<th>Date Out</th>
<th>Time Out</th>
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## Example of Reports # 3

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Fingerprint Medical (c) 2007  17/04/2012 12:40:30  Page 1 of 2

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**Example of Incident Investigation**

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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
- **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

• **Numerous Benefits**
  – By adopting the HSE Instrument Track and Trace solution using GS1 coding, the ability to track and trace instruments through the HSSU process is greatly improved

• **Role of Manufacturers**
  – Real benefits are when manufacturers start to mark their own products
    – Synthes are the first in Ireland to put GS1 codes on their loan set trays
    – **Need more Manufacturers to follow this lead!** – and need more hospitals to request this when speaking to Manufacturers

• **Next Steps**
  – Phase 2 Instrument tracking and Phase 1 Endoscopy tracking
  – Implant tracking
Contact Details

Andrew Smith
HSSU, St James’s Hospital
James’s Street, Dublin, Ireland
T  + 353 1 416 2557
E ASmith@stjames.ie
Hospital Amstelland / GS1 Netherlands
Tom Pereboom

Translating the Dutch business case
Overview of instrument and/or implant traceability

• Traceability Dutch business case: “Patient safety and efficiency in the OR.”

• Start date October 2012
• Key drivers: traceability and availability of implants
• Benefits: waste reduction, inventory reduction and flexibility
• Challenge: convincing senior management
Translating the Dutch business case

- **Goal:** Improving availability and traceability of implants
- **Who?** Number of beds 255, 7 OR clinical areas supported, 88 clinicians and 650 FTE hospital employers, 6 operating theatres and 1 day treatment room
- **What was the Business Issue?** The patient related cost were not transparent. The hospital can not calculate and manage treatment cost based on realistic figures
- **When?** October 2012 – 12 months
- **How?** Translating the Dutch business case to hospital level. Creating a sense of urgency
Translating the Dutch business case

• **Where we started:**
  Becoming a member of GS1 – GLN code

• **Where were the business benefits?**
  Improving patient safety
  • Recall
  • Planning
  • Quality check
  Waste reduction, replenishment process, inventory

• **What were the key implementation challenges experienced?**
  - Lack of barcodes – relabeling issues?
  - Stalemate with SAP environment choices
  - Supply chain is not an issue in hospitals

• **What next?**
  Standardization of assortment and barcodes
Contact Details

Hospital Amstelland
Tom Pereboom
Laan van de helende Meesters 8
1186 AM Amstelveen, The Netherlands
T  + 31207556715
@  tope@zha.nl
C.H.I Robert Ballanger
Frédérique Frémont

Patient security and supply chain optimization

Medical Devices Traceability and scanning
Overview of instrument and implant traceability

Goal: Full traceability as it is mandatory and French Pharmacists are personally liable for Drugs and Sterile Medical Devices

Challenges: Managing the projects which are fundamentally linked together with too few resources (pharmacists, IT, ..)
Hi! Intercity hospital serving a population of 400,000 persons, 670 beds
- 450 beds in acute care (medical, chirurgical and maternity), 50 beds physical medecine and rehabilitation; 170 psychiatry beds
- Outpatient clinic and pharmacy inside Villepinte detention center
- CDG airport hospital

Business Issue: Surgical Instruments
- Due to Creutzfeldt-Jakob risk, the last 5 patients on which the instruments have been used must be known
- Applies to hospital owned or loaned instruments

Business Issue: Implants and high value Medical Devices
- Implants: traceability is mandatory
- Itemized billing to the patient (not included in the hospital bundled payment)

Standards were needed because we wanted to engrave the existing instruments and buy the new ones already marked by the manufacturer

Who? The head of the pharmacy has been the leading sponsor but it took 2 years to convince the top management to go to a full GS1 hospital

Where? At first, no capital funding was needed as we decided to externalize the engraving

When? We began in 2009 and now that a new supplier entered the field, it will be finished before the end of 2012

Next? Engraving is beginning for the instruments of another hospital (same size than us) as we are going to take the activity of their sterilization unit beginning January 2013
Medical Devices Traceability and scanning cont.

- **Where we started:**
  - Using GTINs for the instruments, then for all the transport containers. We thought doing GLNs at the same time but did not due to lack of human resources

- **Where were the business benefits?**
  - Patient security:
    - Instrument and process traceability
  - Supply chain efficiency:
    - The surgical boxes are made by the sterilization operators
    - Traceability of instrument localization: sterilization unit, O.R, repair contractor, loan to other hospitals (2012)
  - Cost reduction: ROI around 24 weeks
    - Decrease in non-conformance and decrease of cost per box per surgical procedure

- **What were the key implementation challenges experienced?**
  - At first, only one: engraving supplier (second entered the market in 2012)
  - Scanners are one of the biggest challenge in instrument engraving (reading of very small data matrix, 1mm x 1mm)
  - Interoperability with IT process traceability

- **What next?**
  - End of 2012 – Beginning 2013 we want to trace the implants and manage the operating theater stock with the WMS we have now implemented in a new Medical Devices warehouse
  - Link with automated dispensing cabinets in the operating rooms through GS1 DataMatrix or bar code reading
Q&A and Open Discussion
Open Q&A, Discussion

Examples…

• Questions for our presenters
• Implementation Pain Points
• Call to Action > Position Papers
• …
Coffee Break – 30 Minutes

Return to Plenary
“New York”
Contact Details

GS1 Global Office
Avenue Louise 326, bte 10
B-1050 Brussels, Belgium
T  + 32 2 788 78 00
W  www.gs1.org