GS1 Healthcare Provider Advisory Council Webinar
Plymouth Hospitals NHS Trust

Translating strategic commitment into GS1 standards coming to life in hospital processes

Richard Price - Scan4Safety Programme Manager
Plymouth Hospitals NHS Trust
April 2017
Welcome and thank you for attending!

- Welcome to our April 2017 webinar. Thank you to our guest speaker – Richard Price, Scan4Safety Programme Manager of Plymouth Hospitals NHS Trust (Hospital) in Devon, England

- Some housekeeping for today:
  - All attendees will be on mute
  - If you have questions during the presentation, please type them into the questions area and these will be monitored then answered at the end of the call

- After the webinar:
  - Within a week, the recording will be posted to: http://www.gs1.org/healthcare/hpac_webinars
  - All previous webinars are also posted to this location, so please feel free to use this resource and share the link
The GS1 Healthcare Provider Advisory Council (HPAC)

Thought leaders and adopters of GS1 Healthcare Standards from the global clinical provider environment. Their final goal is to improve patient safety, cost efficiency and staff productivity through implementation of GS1 standards.

A forum for sharing and discussion

- About the practical realities of implementation of GS1 Standards in the care giving environment in regards to the impact on clinical care and patient interaction
- That support the adoption of GS1 Standards in healthcare providers and retail pharmacies
- For publication, presentation and sharing
- 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

Identification of projects and case studies

A source of expertise and advice
HPAC Activities

**Webinars**

- Monthly webinars open to all stakeholders interested in learning about GS1 standards implementation in the care giving environment.
  - [http://www.gs1.org/healthcare/hpac_webinars](http://www.gs1.org/healthcare/hpac_webinars)

**Awards**

- Twice per year
- Provider Best Case Study Award
- Provider Recognition Award
- The prize is travel / accommodation to attend the next GS1 Healthcare conference
  - [http://www.gs1.org/healthcare/hpac](http://www.gs1.org/healthcare/hpac)

**GS1 Healthcare also holds two global conferences per year. The next conference will be in Chicago from October 17-19, 2017, with significant Healthcare Provider participation on the agenda.**
Presenting today – Richard Price

Who am I?

• Scan4Safety Programme Manager

• Procurement & Commercial Professional

• 15 years’ experience in public & private sectors

• At Plymouth for 3 years

• MCIPS & MSP qualified
Agenda

• Strategic commitment
• Programme structure
• Department of Health vision
• Department of Health requirements
  - Core enablers
  - Use cases
• Driving value
• What’s next?
• Testimonials
Strategic Commitment

At the Beginning …

- NHS eProcurement Strategy (2014)
- Trust vision
  - Be highly rated for the care we provide
  - Collaborate with partners in the region
  - Be financially sustainable
  - Be a preferred employer
- Commitment - Charter
- Current state assessment
- Scope
- Develop high-level plan
Scan4Safety Team - Plymouth

Nick Thomas
(Deputy Chief Executive & SRO)

Richard Price
Scan4Safety Programme Manager

Sandie Wills
Scan4Safety Project Manager

Dawn Sambells-Perry
Communication

Sophie Reid
Scan4Safety Project Manager

Katie Greenhill
IT Project Manager

Location Management (GLN)

Product Recall

IT Apps

Catalogue Management (GTIN)

Purchase to Pay (PEPPOL)

Inventory Management

Patient ID (GSRN)

Estates, Pharmacy, Procurement, Software Development, Surgical Instruments, Medical Devices & Clinical Teams
At the End of Year 2/Final Phase

- GS1 barcode standards used for **Patient, Product & Place**
- GS1 & **PEPPOL** standards used for Machine to Machine transactions
- National Registries used for **Place & Product** master data
- Product Recall of all products tracked by **Patient, Product & Place**
- Sustainable Organisational Structures
- eCatalogues used for all products and relevant services
- Automated inventory replenishment
- Reduction in inventory levels
- Single in-Trust logistics function approved by the Trust board
- Final case studies presented
Department of Health Requirements

Core Enablers

Patient Identification (GSRN)

Product Catalogue Management (GTIN)

Place Global Location Numbering (GLN)
Core Enabler Detail

Patient (GSRN)

- GS1 compliant 2D Data Matrix, used to identify a Patient
- ISB 1077 Standard for data capture
Core Enabler Achievements

Patient (GSRN)

% Patients with a GS1 wristband

- Lowest Over-riding Wards = or <10%
  - Torcross
  - Clearbrook

- Highest Over-riding Wards
  - Over-riding Wards >30%
    - Argyll
    - Central Delivery
    - Child Assessment, HDU, Ward
    - Day Assessment
    - Eden
    - Freedom
    - NNICU
    - Obs Triage
    - Transitional Care
    - Woodcock
Core Enabler Achievements

Patient (GRSN)

Mislabelled blood samples:
- Emergency Department
- Wrong Patient details
- Inconvenience to Patient
- Increased number of tests

![Bar chart showing mislabelled blood samples across different wards and services, with data from January 2017, December 2016, and November 2016.]
Core Enabler Detail

Product (GTIN)

- Identifies a product

- Healthcare issues using catalogue number:

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Catalog #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medtronic</td>
<td>305905</td>
<td>Mosaic ® 305 Porcine Heart Valve</td>
</tr>
<tr>
<td>BD</td>
<td>305905</td>
<td>3BD SafetyGlide ™ Syringe</td>
</tr>
<tr>
<td>J &amp; J</td>
<td>305905</td>
<td>Protectiv ® IV Catheter System</td>
</tr>
</tbody>
</table>
Core Enabler Achievements

Product (GTIN)

Current state

Manufacturers

Distributors (DHL)

Hubs / Contract Agencies (SBS, LPP, CPC...)

Catalogue Service Providers Agencies (HealthLogistics, GHX...)

NHS Acute Trust

Departments

Computer Systems
(Inventory Management, P2P, Pharmacy System)
Core Enabler Achievements

Product (GTIN)

Future state
Core Enabler Detail

Place

Unique number to identify a physical space:

<table>
<thead>
<tr>
<th>GS1 Global Location Number (GLN)</th>
<th>GS1 Company Prefix number example</th>
<th>Location reference element example</th>
<th>Check digit</th>
<th>Number of GLNs that can be created</th>
</tr>
</thead>
<tbody>
<tr>
<td>5012345</td>
<td>00000</td>
<td>8</td>
<td>100,000</td>
<td></td>
</tr>
<tr>
<td>50551234</td>
<td>0123</td>
<td>9</td>
<td>10,000</td>
<td></td>
</tr>
<tr>
<td>506001234</td>
<td>999</td>
<td>8</td>
<td>1,000</td>
<td></td>
</tr>
</tbody>
</table>

Physical GLN hierarchy:

<table>
<thead>
<tr>
<th>Level One</th>
<th>A single code identifying the Organisation/Trust</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level Two</td>
<td>Each site/campus/hospital operated by the Trust</td>
</tr>
<tr>
<td>Level Three</td>
<td>Individually identifiable buildings or areas within particular site/campus/hospital</td>
</tr>
<tr>
<td>Level Four</td>
<td>This applies to floors within buildings.</td>
</tr>
<tr>
<td>Level Five</td>
<td>This applies to rooms, corridors and other discrete spaces that need to be identified. This could include ducts and riser cupboards</td>
</tr>
</tbody>
</table>
Core Enabler Achievements

Place

- 100% of all physical places now issued with a barcode
- In-house development of Local Registry for management of all GLNs
- Public-facing GLNs uploaded to LocationManager (National Registry)
Department of Health Requirements

Process (Use Cases)

- Inventory Management
- Purchase to Pay
- Product Recall
Use Case Detail

Inventory

• Manage products by a single function
• Make policy & process clear and understandable
• Release clinical time back to care
• Track & Trace Class III Medical Devices and Medicines
• Machine to machine auto-replenishing using master data
• Reduce process errors & inventory levels
Use Case Achievements

Inventory

- Policy & procedures
- Prioritised areas to control
- Agreed Point of Care scanning solution
- Demonstration to clinical staff
Use Case Achievements

“We deliver over 5,000 babies per year. The knock-on effect of these savings has created more time for midwives to spend at the point of contact”

Nicola Phillips – Matron for Clinical Standards, Nursing Quality Team
Use Case Detail

Purchase to Pay

Abbott Medical Optics

Private company
Customer relationship
Unknown interface

Roaming agreement
SLA requirements
Standardized business processes
Standardized business documents
Standardized transport profiles
Multi level registry infrastructure
Federated trust and certificate validation

Access point
Offered by Service Provider

Public sector institution
Customer relationship
Unknown interface

Access Point
Offered by Service Provider

NHS
Shared Business Services

TRADESHIFT®

IBM

GHX

The Global Language of Business
Use Case Achievements

Purchase to Pay

- PEPPOL access point live with GHX
- 4 corner model tested with Abbott Medical
- Turning off Paper Order printing/faxing
- Using GLN & GTIN to order
Use Case Detail

Product Recall & Traceability

- Electronic systems using the GS1 standards
- Focus on Class III Products
- Core Enablers and Use Cases implemented

Why are we doing this?
Use Case Achievements

Product Recall

• Trust reviewed its policy & procedures
• Creation of single point for recalls
• Non-pharmacy system fully upgraded
Driving Value

How have GS1 Standards come to life?

• Point of Care Scanning:
  - Theatres & Wards - Patient/Product/Place/Asset
  - Development of in-house software app - Patient/Product/Place

• Supply Chain Efficiencies:
  - Machine to Machine processing – Product/Place
  - Track & Trace (Product Recall) of products – Product/Place/Patient
Driving Value

Point of Care Scanning – Current State
Driving Value

Point of Care Scanning – Future

GTIN, GLN, GSRN, GIAI, OPCS & ICD10

Inventory Mgt

Reporting
Patient Level
Costs
Safety Recalls
Process
Analysis
Variation
Outcomes

National Joint Registry

© GS1 2017
Driving Value

Point of Care Scanning – Solution

- Place
- Recall
- Asset
- Inventory
- Product

Add Surgery

SCAN BARCODE / ENTER DATA

Patient Location
PT000001 - Theatre 1
Patient Identification Number
10621032
Surgeon
4018937 - Mr Mark Brinsden
Procedure
PS001 - SHOULDER REPAIR 1

Attention
Item has expired. (30/11/2015) This item cannot be used.
Driving Value

Point of Care Scanning - Order Communications

iCM (iSOFT Clinical Manager) – Positive Patient ID for Safer Sampling –
**GO LIVE 3rd May 2016**

When collecting a specimen, you are asked to confirm the patient details.

Once confirmed, the barcode on the patients wristband will need to be validated using a barcode scanner.

For the occasions when it's not possible to scan the wristband i.e. Barrier Patient. This functionality is fully audited.

The Global Language of Business
Driving Value

Point of Care Scanning - Blood tracking

Place
Recall
Patient
Product
Inventory

The Global Language of Business
Driving Value

IT Apps - Specimen Tracking

- Patient
- Place
- Asset

Scan for Location

Order Scanned
This order should contain:

5 tubes.
Available action(s):
- Collect
- Report Discrepancy

Specimen Collection
5 orders to collect from Wolf Word bus stop.
This includes 1 URGENT specimen.

Due: 16/02/2017
16:00 PM

Actions
Driving Value

IT Apps - Acute Care Triage

Patient Place
# Driving Value

## Rollout Timelines - 2017

<table>
<thead>
<tr>
<th>March</th>
<th>April</th>
<th>May</th>
<th>June</th>
<th>July</th>
<th>August</th>
<th>Sept</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
</tr>
</thead>
<tbody>
<tr>
<td>POC Scanning TOR</td>
<td>POC Scanning Cardiology &amp; Cardiothoracic</td>
<td></td>
<td></td>
<td>POC Scanning Neurosciences</td>
<td>POC Scanning TBC</td>
<td>Scanning MEMs/SDU Equipment (Theatres)</td>
<td>IT Apps</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Scanning MEMs/SDU Equipment (Theatres)
  - IT Apps
    - Development
      - Proof of Concept/Prototype
    - Go-Live
What’s next?

Taking GS1 Standards further

• GSRN – Staff

• GIAI – Medical Equipment & Instruments


• Advanced Shipping Notes (ASN)
Testimonials

Quotes from around the hospital

• ‘Scan for Safety ticks all the boxes - patient safety, efficiency and best use of technology - the programme puts patients first and clinicians believe in it’ – **Ann James, Chief Executive**

• ‘The introduction of PPID has meant that ‘we’ as phlebotomists now can feel confident that we are taking samples from the correct patient. Repeat visits are reduced and patient confidence is increased’ – **Adam Webb, Phlebotomist**

• ‘Since introducing PPID our staff now ‘stop & check’, this ensures we will be transfusing the correct patient, I have confidence that the introduction of PPID through the bedside scanning application will reduce patient and make the transfusion of patients in our Trust safer’ - **Caroline Lowe, Specialist Practitioner of Transfusion**
HPAC Questions and contact details

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