Cost savings through standards

Welcome!
Cost savings through standards

By implementing the Global Traceability Standards for Healthcare (GTSH)

Mr. Justin Bitter Ph.D., Business manager, Bernhoven Hospital, the Netherlands
17th October, 2017
Who is...

**Dr. Justin Bitter**

- 20 years of experience in hospital settings
- Medical- and business administration background
- Chairman of the Dutch GS1 focus group traceability 2010-2015
- Member of GS1 Global Health Care Leadership Team since 2014
- Currently working as a business manager at Bernhoven hospital, the Netherlands
Our experts, sharing their experiences...

- Ms. Cynthia Shumway, Director, Supply Chain Business Applications, Intermountain Healthcare, U.S.

- Mr. Matthew Mentel, Executive Director - Integrated Performance Solutions, Mercy, U.S.

- Ms. Betty Jo Rocchio, Vice President, Perioperative Services, Mercy, U.S.
Today’s agenda

• 15 min intro and presentation – Justin
• 20 min presentation - Cynthia
• 25 min presentation – Betty Jo and Matthew
• 25 min Q & A – Facilitated by Justin
• 5 min close – Justin

Please be ready with your questions!
Bernhoven Hospital, the Netherlands
Why increasing efficiency in hospitals?

Implementing (GS1) Global Traceability Standards for Healthcare solve:

- No visibility of goods availability
- Strongly dependency on employee knowledge
- High inventory costs
- Excessive loss (yearly expired sterile stock up to $ 150,000,-)
- Higher error probability
- Inadequate monitoring capabilities
- No full scale
- Search and can not find
- Elimination of non-value adding activities
- Out of stock situations
The following cost reductions were obtained:

- Reduction of stock by 31%
- Reduction in stock value by 23.6%
- Reduction of waste by 72% (representing a total value of $25,200)
- Return on investment within 14 months
# International audit Bernhoven for implementation GTSH by GS1 Global Office

<table>
<thead>
<tr>
<th><strong>AUDIT INFORMATION</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective</strong></td>
<td>Audit the Bernhoven O.R. department to assess compliance to the GS1 Global Traceability Standard for Healthcare (GTSH) utilizing the Global Traceability Conformance (GTC) framework (Issue 1, March 2009)</td>
</tr>
<tr>
<td><strong>Scope</strong></td>
<td>Medical Device Products, specifically implants and sterile disposables. From receipt into OR &gt; OR Logistics process &gt; Patient record; supported by OR Inventory Management System</td>
</tr>
<tr>
<td><strong>Control Points Audited</strong></td>
<td>1.3-1.5, 2.1, 2.3, 3.1-3.4, 3.7, 4.1, 4.3, 4.4, 4.6, 4.7, 4.9-4.11, 5.2-5.5, 5.11-5.14, 6.10-6.11, 6.14, 6.17-6.20, 6.22-6.23, 6.25, 6.27, 6.29-6.30, 7.1-7.6, 8.1-8.4, 9.1-9.3, 10.1-10.3, 10.8, 11.1-11.2, 12.1, 12.3.</td>
</tr>
<tr>
<td><strong>Audit Place</strong></td>
<td>Bernhoven Hospital, Uden, Netherlands</td>
</tr>
<tr>
<td><strong>Audit Date</strong></td>
<td>Friday 10th October 2014</td>
</tr>
<tr>
<td><strong>Reference documents (Audit Criteria)</strong></td>
<td>GTSH Issue 1.2.0, Oct-2013, Global Traceability Conformance (GTC) framework (Issue 1, March 2009)</td>
</tr>
</tbody>
</table>
Creating efficiency by cost management

Implementing (GS1) Global Traceability Standards for Healthcare yield benefits:

• Amplifying balance sheet of the hospital
• Track and trace supports current assets control
• Reduction of stock levels (25%)
• Reduction of expired products (80%)
• Lowering high indirect costs of staff
## Value (stock, lost and expiration)

<table>
<thead>
<tr>
<th>OR-stock owned by Bernhoven</th>
<th>2012 (pre)</th>
<th>2013 (start T&amp;T)</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017 (est. incl.Q4-'17)</th>
</tr>
</thead>
<tbody>
<tr>
<td>STOCK</td>
<td>€ 800.000 (est.)</td>
<td>€ 684.054</td>
<td>€ 601.825</td>
<td>€ 700.075</td>
<td>€ 754.107</td>
<td>€ 673.065</td>
</tr>
<tr>
<td>USED</td>
<td>Unknown</td>
<td>€ 858.326</td>
<td>€ 1.458.914</td>
<td>€ 1.707.948</td>
<td>€ 1.840.798</td>
<td>€ 1.795.880 (est.)</td>
</tr>
<tr>
<td>LOSS</td>
<td>Unknown</td>
<td>€ 27.502</td>
<td>€ 56.043</td>
<td>€ 6.935</td>
<td>€ 10.886</td>
<td>€ 12.150 (est.)</td>
</tr>
<tr>
<td>EXPIRED</td>
<td>€ 32.000 (est.)</td>
<td>€ 543</td>
<td>€ 1.299</td>
<td>€ 8.904</td>
<td>€ 4.530</td>
<td>€ 1.750 (est.)</td>
</tr>
</tbody>
</table>

The Global Language of Business
## Items (stock, lost and expiration)

<table>
<thead>
<tr>
<th>OR-stock owned by Bernhoven</th>
<th>2012 (pre)</th>
<th>2013 (start T&amp;T)</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017 (est. incl Q4-'17)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>STOCK</strong></td>
<td>Unknown</td>
<td>1.676</td>
<td>1.624</td>
<td>2.262</td>
<td>2.421</td>
<td>2.162</td>
</tr>
<tr>
<td><strong>USED</strong></td>
<td>Unknown</td>
<td>2.412</td>
<td>3.905</td>
<td>4.710</td>
<td>6.475</td>
<td>7.110 (est.)</td>
</tr>
<tr>
<td><strong>LOSS</strong></td>
<td>Unknown</td>
<td>149</td>
<td>278</td>
<td>30</td>
<td>51</td>
<td>60 (est.)</td>
</tr>
<tr>
<td><strong>EXPIRED</strong></td>
<td>Unknown</td>
<td>6</td>
<td>4</td>
<td>36</td>
<td>10</td>
<td>8 (est.)</td>
</tr>
</tbody>
</table>
Cost Savings through standards

Cynthia Shumway, Intermountain Healthcare
October 2017
A Large, Integrated Health System with a Tradition of Innovation

Helping people live the healthiest lives possible™

Based in Salt Lake City, Utah

Hospitals
- 1975 Began
- 22 Hospitals
- 2,800 Beds

Health Plans
- 1983 Started
- SelectHealth
- 850,000 Members

Medical Group
- 1994 Started
- 1,400 Employed physicians
- 4,000 Affiliated physicians
- ~200 Clinics

Continuum Care
- TeleHealth
- Homecare
- Life Flight
- Central lab
- Central pharmacy

Intalere
- 1986 Started
- 2015 Ownership
- Commercial platform
- $9B Spend GPO

39,500 employees
$2 B non-labor spend
AA+ Standard & Poor’s
Aa1 Moody’s
Supply Chain Center

• Supply Chain Center opened in September 2012
• Built to Gold LEED Certification
• 327,000 Square Feet
• Located within 50 miles of 80% of our facilities
• It is one piece of the journey
Intermountain Data Standards Journey

- 1993: Standard Item Master – 23 to 1
- 1998: “UPN”
- 2000 – 2007: Various “standards” groups
- 2007: Aligned with GS1
- 2008/09: GLN
- 2010: 5 providers form ‘HTG’ Healthcare Transformation Group
- 2010 – current: It’s all about GTIN!
Intermountain Data Standards Journey

Data Synch

Transactions

Data Sharing
Intermountain Data Standards Journey

Data Synch

- Master data management
  - Contract Price Management
- Item Master Management
- Supplier Management

<table>
<thead>
<tr>
<th>Supplier Name</th>
<th>Supplier #</th>
<th>GTIN</th>
<th>UOM</th>
<th>Cost</th>
<th>Conversion to EA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demo X</td>
<td>7763</td>
<td>10130984782914</td>
<td>EA</td>
<td>$1.00</td>
<td>1</td>
</tr>
<tr>
<td>Demo X</td>
<td>7763</td>
<td>10130984327934</td>
<td>BX</td>
<td>$10.00</td>
<td>10</td>
</tr>
<tr>
<td>Demo X</td>
<td>7763</td>
<td>10138943290985</td>
<td>CA</td>
<td>$40.00</td>
<td>40</td>
</tr>
<tr>
<td>Demo X</td>
<td>7760</td>
<td>10137652873746</td>
<td>EA</td>
<td>$20.00</td>
<td>1</td>
</tr>
<tr>
<td>Demo X</td>
<td>7760</td>
<td>10135748329834</td>
<td>BX</td>
<td>$100.00</td>
<td>5</td>
</tr>
<tr>
<td>Demo X</td>
<td>7760</td>
<td>10132342783948</td>
<td>CA</td>
<td>$200.00</td>
<td>10</td>
</tr>
</tbody>
</table>
Source to Settle w/GLN & GTINs – “Touchless”

- PO 850
- PO acknowledgement (855) – match by GTIN *exception touch only
- Advanced Ship Notice (ASN – 856) and/or SSCC – match by GTIN
- Invoice (810) – match by GTIN
  - Right price loaded by GTIN
  - Right match on invoice by GTIN
Intermountain Data Standards Journey

Provider

GLN/GTIN

Supplier

GPO

© GS1 2017
Intermountain Data Standards Journey

Transactions

• Inventory Management
  • Expiration Alerts
  • Lot/Serial Tracking
  • Point of Use

• Casual Requisitions – Scan to order
Intermountain Data Standards Journey

Data Sharing

- Clinical Point of Use (POU)
## What are we striving for . . .

### What we want

- Perfect Contract
- Perfect Pricing
- Perfect Order
- Perfect Receipt
- Perfect Invoice
- Perfect Scan
- Perfect Charge Capture
- Perfect Patient Data

### Benefits/Cost Savings

- Improved customer experience
- Clinical & Operational time savings
- Reduction in error rates
- On time Payment
- Improved Patient Safety
- Clinical comparative effectiveness analysis
What are we striving for . . . Transparency
The key to effective variation is standardization

Dr. Brent James
Chief Quality Officer
Intermountain Healthcare
There is an enormous responsibility in the role we serve - we have an obligation to **NEVER** become the weak link in our company’s value chain.
Capturing UDI at Point of Care—Lessons Learned

Matthew Mentel, Executive Director – Performance Solutions – Mercy
Betty Jo Rocchio, Vice President – Perioperative Performance Acceleration - Mercy
October 2017
Antitrust Caution

**GS1 US is committed to complying fully with antitrust laws.**

We ask and expect everyone to refrain from discussing prices, margins, discounts, suppliers, the timing of price changes, marketing or product plans, or other competitively sensitive topics.

If anyone has concerns about the propriety of a discussion, please inform a GS1 US representative as soon as possible.

Please remember to make your own business decisions and that all GS1 standards are voluntary and not mandatory.

Please review the complete GS1 US antitrust policy at: [www.gs1us.org/gs1-us-antitrust-compliance-policy](http://www.gs1us.org/gs1-us-antitrust-compliance-policy)
Introductions

BETTY JO ROCCHIO
RN, BSN, CRNA, MS
VICE PRESIDENT
PERIOPERATIVE PERFORMANCE ACCELERATION

MATTHEW MENTEL
CMRP, MHA, MBA
EXECUTIVE DIRECTOR
INTEGRATED PERFORMANCE SOLUTIONS
An Overview of Mercy: Services & Locations

Headquartered in St. Louis with a multi-state footprint, Mercy is the 5th largest Catholic health system in the US.

- 1827 founded
- 44 hospitals
- 350 outpatient facilities
- 3,000 integrated providers
- 40,000 co-workers
- Serving millions each year

Top 5 consistent best performing large health system

1. Physician-sponsored primary care clinics
2. TeneraHealth is Top Health System innovative years 2010 & 2017
What and why?
Leveraging for Tomorrow

**TODAY**
- Revenue center
- Volume-driven
- Pre-certification just starting
- Managing cost post-case

**TOMORROW**
- Cost center
- Quality-driven
- Pre-certification increases
- Managing cost in real-time

**Appropriate Surgical Solutions:**
Matching clinical need, which includes costs and efficiencies

**Business Bottom Line:**
Managing cost of supplies, labor, and overhead

**Revenue Cycle:**
Penalties based on Medicare spending and value-based purchasing

The Global Language of Business
How does UDI fit in?

<table>
<thead>
<tr>
<th>Major Process</th>
<th>Major Process</th>
<th>Major Process</th>
<th>Major Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Scanning product barcode to patient&lt;br&gt;• Capture of UDI including lot / serial / exp date&lt;br&gt;• Capture cost per case&lt;br&gt;• Patient Safety</td>
<td>• Tracking of shelf level inventory&lt;br&gt;• Shelf level tracking of lot / serial / exp date of product&lt;br&gt;• Automated inventory replenishment</td>
<td>• Automated charge capture&lt;br&gt;• Lost charge reporting</td>
<td>• Comparative Effectiveness&lt;br&gt;• Post Market Surveillance&lt;br&gt;• Supply Standardization</td>
</tr>
</tbody>
</table>

Goal: Enable capture of the UDI to the patient...
Apply automation to highly manual process
How does UDI impact clinical workflow?

• UDI Drives
  • (EMR) documentation
  • Product consumption
  • Inventory replenishment
  • Patient charging
  • Complete cost accounting
  • Expiry & recall notification

*Augments supply chains ability to positively impact Mercy’s core business function, patient care*
Scheduling a Case

Schedule Case → Pick Case Cart → Procedure → Verify Case → Posting/Returns → Replenish/Receiving

Finance
Challenges to UDI Nirvana

- Barcodes
  - Quality
  - Layout standardization
  - Adoption of barcode by Manufacturers
- Content synchronization
- Disconnect between sales and contracting
- Lack of understanding and buy in:
  - Clinicians
  - Physicians
  - Supply chain
Barcode Challenges

Unexpected Segment 21

Unexpected Segment 30

Missing Code Breaks

No Check Digit
Barcode Challenges

6 Barcodes – Contains both a Lot and a Serial number

Same Product – Spine

6 Barcodes – Clinical confusion

Same Product – Spine
Barcode Challenges

Linear barcode does nothing and the 2D triggers an EPIC executable

New item brought in from vendor – Not on contract

Lot but no expiration

Barcode Confusion
## Benefits of UDI capture

### FINANCE
**Reimbursement**
- Healthcare cost
- Patient safety & outcomes
- Patient/coworker satisfaction
- Charge capture
- Comparative effectiveness

### OPERATIONAL
**Process and Workflow**
- Management of expired product & recalls
- Medical legal product documentation
- Product tied to patient & outcome
- Enhance clinical workflow
- Tissue tracking & regulatory compliance

### CLINICAL
**Inventory Management**
- Inventory visibility & standardization
- Multiple product locations
- Inventory valuation
- Preference card accuracy
- Owned vs consigned
- Recognizing consumption on demand
- Preference card optimization
Key Driver

Patient-centered to improve care and flow through the OR with awareness of financial impacts to the delivery of consistent or improved outcomes.

**People** → **Process** → **Technology**

**Right patient, right procedure, right supplies, right time…every time.**
Financial Benefits of UDI Capture

CLINICALLY LED

- Realizing unrecognized inventory assets: $2.4M

OPERATIONALLY DRIVEN

- Improving inventory utilization: $4.7M
- Optimizing charge capture: $13M
- Improving Preference card accuracy: $459K
- Automation of replenishment: $4.8K
- Reduction in cycle counts: $167K
- Improving clinical user satisfaction: Survey
- Optimally Manage owned vs. consigned inventory

The Global Language of Business

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Benefits of UDI Capture

*This equates to a $341.30 increase in charge per case
Right patient, right procedure, right supplies, right time….every time.
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Questions from the audience
Two key messages to take away

• Use of GS1 standards can help increase patient safety and at the same time provide a financial outcome

• Learn from today’s presenters about how best to calculate ROI and apply this to your implementations
Poster reception tonight!

5:00 pm – 6:00 pm Promenade Ballroom

Vote for your favorite poster
Thank you for your attention and enjoy the rest of the conference!