GS1 UK

The Global Language of Business

Lancashire Procurement Cluster (LPC)

Dave Harris

10th April 2019

Blackpool Teaching Hospitals NHS
NHS Foundation Trust

East Lancashire Hospitals NHS
NHS Trust

Lancashire Teaching Hospitals NHS
NHS Foundation Trust

Utilising modern materials management systems to drive tangible benefits within the NHS environment

Blackpool Teaching Hospitals **NHS**
NHS Foundation Trust

East Lancashire Hospitals **NHS**
NHS Trust

Lancashire Teaching Hospitals **NHS**
NHS Foundation Trust

GS1
UK

Agenda

1 Inventory Transparency

2 Scan4Safety/ GS1 Adoption

3 Generating the ROI

Blackpool Teaching Hospitals **NHS**
NHS Foundation Trust

East Lancashire Hospitals **NHS**
NHS Trust

Lancashire Teaching Hospitals **NHS**
NHS Foundation Trust
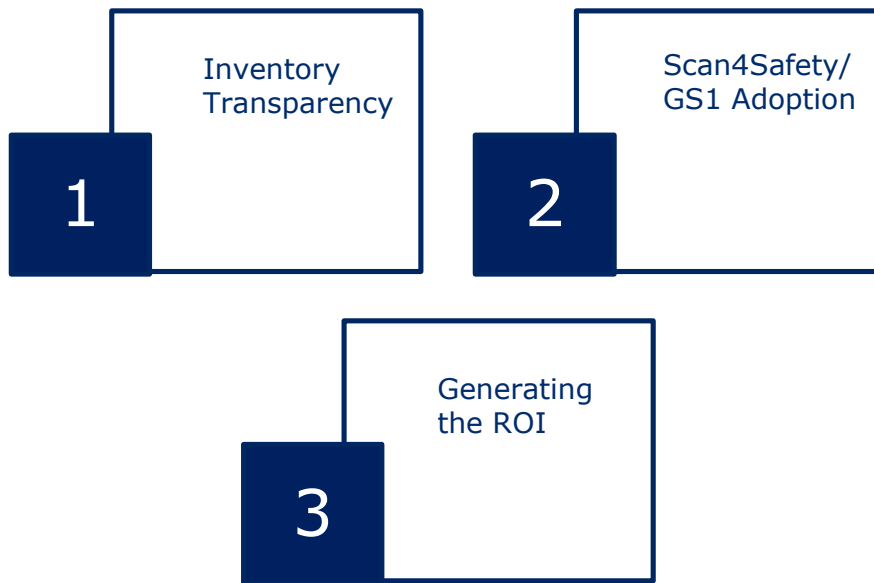
Inventory Transparency

- What do I have?
- Where is it?
- Do I have enough for these procedures?

- What does it cost?
- Why have we run out?

Inventory Transparency

What do I have? -Where is it?

- All inventory management system should provide this. Location, Qty, Usage are all common in systems . Essential at set up to involve GS1 for Scan 4 Safety compliance and bar coding including patients, locations, buildings etc

Do I have enough for these procedures?

- Using BOM (procedure lists) which can be ran against stock on hand you can quickly establish stock available for operating lists. Integration to theatre management system would be ideal.

What does it cost?

- Most systems will hold inventory values generally using average landed costs or last cost. This will be governed by finance system.
- The new FOM will apply variable rates for pick qty so system control of EOQ and PPQ ordering will save money

Why have we run out?

- Once you have a system in place this can be established. Note:- the system is only as reliable as the data it receives. Depending on depth of integration of material management teams you may rely on nursing staff to consume inventory as they use it. When not consumed, you will stock out.

Consider carefully where and how inventory is consumed.

Inventory Transparency

- Dynamic Inventory System

- How do you generate savings to create ROI ?

- Systems drive S4S/GS1 standards adoption in Theatres?

(01)008012340000155(11)150101(17)200101(10)MT1401G77(21)0000017947
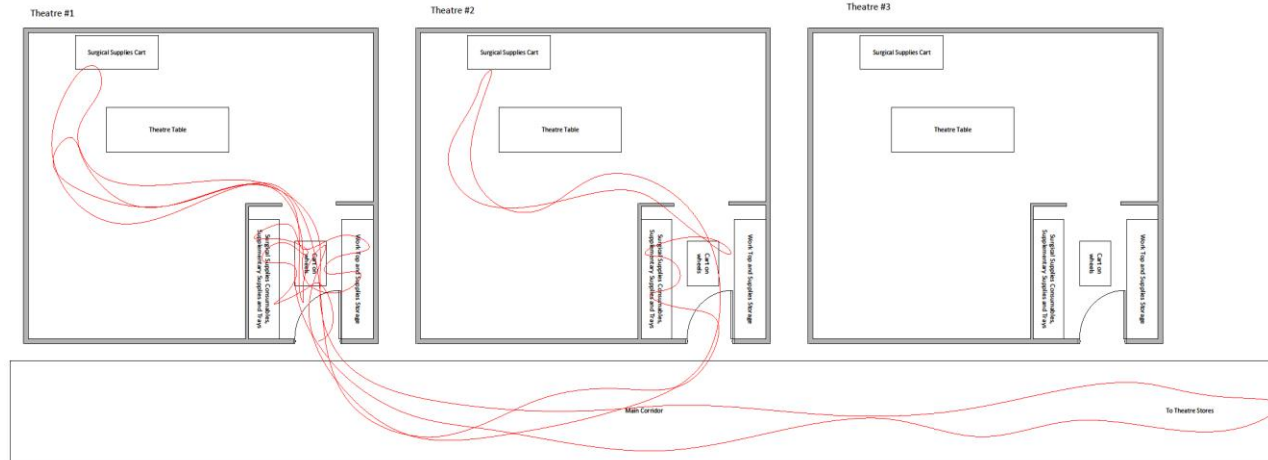
Assumptions

- Using BOM to return nursing staff back to front line.

- Basic Assumption for easy cost benefit (based on conversations with staff)

- Assume 20 Theatres, Avg 4 procedures per day,
- Nursing staff currently taking 20 min per pick for procedure. Equal to 3.5 WTE band 5 plus.

- Detailed studies can show very different facts

Evidence

Spaghetti Diagram Nurse Procedure Supplies Picking Route Theatre 1 (First Case of the Day)

How long do you think it took one nurse to prepare the first procedure of the day ?

One Hour and 5 Seconds !

Revised Assumption

- Assume 20 Theatres, Avg 4 procedures per day

- Nursing staff currently taking 60 min per pick for procedure. Equal to 10.6 WTE band 5 plus

- The reality will be somewhere in the middle

- Take time to do some basic studies to support verbal assertions. General assumption is we spend less time doing a task than the reality

Savings Opportunities

- 2000 orders per month processed outside of system manually into oracle or another PO management system.

- 2000 orders @ 15 min total staff time to place, manage etc is 500 hours per month or 13.3 WTE

- Accurate inventory management will allow inventory reduction and rationalisation. A minimum of 10% reduction within 18 months of go live is very realistic

- Inventory reduction and transparency will as a minimum reduce inventory wastage and obsolescence by 70%.

- Manage EOQ to PPQ with NHS SC ordering. Value to be determined once pricing structure released

- Automation of joints registry and real-time interrogation of implants

- Control of serialised and batch controlled inventory including consigned

How does all of this deliver GS1/S4S in Theatres?

Standards Key

GSRN Positive patient ID by scanning a wristband or staff ID by scanning staff badge.	**GLN** Scanning captures the location of the care delivered	**GTIN** Accurate detailed product information captured without errors	**GIAI** Identifies the instrument/tray that has been used on an individual patient	**GDTI** Identifies the patient notes or diagnostic test
Scan of patient to associate BOM	Location mapping in system using GLN to ensure compliance	Using GSI standards to ensure system compliance to GTIN.	Trays are part of the BOM hence the serial number and cost of sterilisation is captured	

GS1

- Identification of gaps required to adopt GS1 standards

- Checking patients wristbands for ISB1077 compliance

- Location Numbering guidance

- Understanding of standards ie GTIN, GLN etc

- Support network of Trusts to provide reference visits and contacts

Financials - Example 1

Benefits	Year 1	year 2	Year 3	Year 4	Year 5	Recurrent £K	Non Recurrent £K	Total £K
Current Inventory reduction		250					250	250
Identification of additional inventory	500	2500	1300				4300	4300
Release of clinical hours - preparation time	212	212	212	212	212	1060		1060
Release of clinical hours - ordering time		350	350	350	350	1400		1400
Reduced waste		120	70	40	10	240		240
Continuous Improvement by specialty		70	60	60	60	250		250
Total benefits	**712**	**3502**	**1992**	**662**	**632**	**2950**	**4550**	**7500**
Additional costs								
staff	290	290	290	290	290	1450		1450
System, interfaces & Hardware	125	70	70	70	70	405		125
Upgrade to facilities incl security	20	5	5			30		30
travel, uniforms, consumables, sundry	5	5	5	5	5	25		25
Total costs	**440**	**370**	**370**	**365**	**365**	**1910**		**1910**
Net benefit	**272**	**3132**	**1622**	**297**	**267**	**1040**	**4550**	**5590**
Return on Investment (ROI)								**74.50%**

Financials Example 2

Benefits	Recurrent £000	Non Recurrent £000	Total £000
Current Inventory reduction		200	200
Identification of additional inventory (Theatres)		1000	1000
Identification of additional inventory (Wards)		1000	1000
Release of clinical hours - preparation time	212		212
Release of clinical hours - ordering time	143		143
Reduced waste	82		82
Continuous Improvement by specialty	250		250
Total benefits	**688**	**2200**	**2888**
Additional costs			
staff	290		290
maintenance	27		27
capital charges	63		63
travel	17		17
uniforms		9	9
Total costs	**397**	**9**	**405**
Net benefit	**291**	**2192**	**2483**

Additional Benefits

- All serial and batch controlled items are recorded to the BOM and patient via scan. Therefore NJR data can be automated with interface to patient records to link patient number to name and address.

- Product recall of implants to patient - immediate as on system. Sample test of current process best was 4 hours for a single and a second was stopped due to time.

- BOM link all costs of material to patient ID which facilitates patient level costing

- Most systems will have spare fields which have lottable attributes which can be used to capture who is in the theatre, how long procedure took etc to enhance activity based costing

Questions