



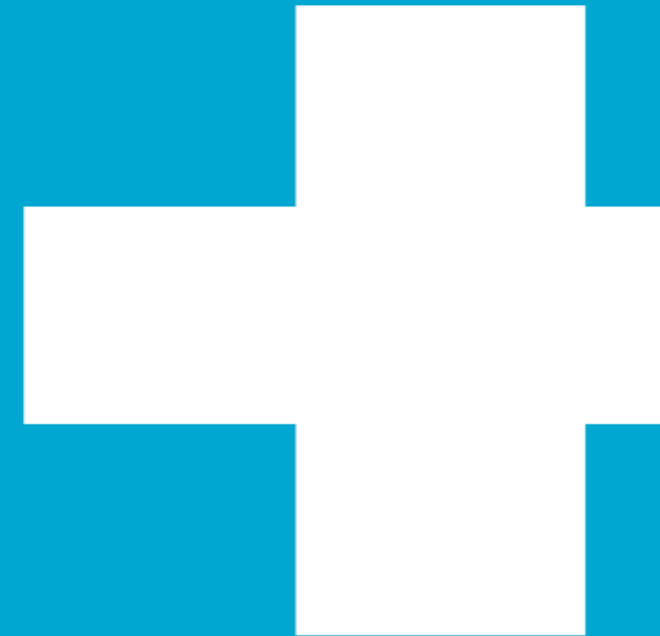
## Panel – Healthcare Professionals – different viewpoints, one goal

Chairperson: Mr. Keith Jones, Clinical Director of Surgery,  
Derby Teaching Hospitals NHS Foundation Trust, U.K.

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Ms. Lorna Wilkinson, Director of Nursing, Salisbury NHS Foundation Trust, UK  
Mr. Iain Davidson, Chief Pharmacist & CCIO, Royal Cornwall Hospitals NHS Trust, UK  
Mr. Nick Thomas, Deputy CEO, Plymouth Hospitals NHS Trust, UK

Keith Jones  
Head & Neck Surgeon  
Clinical Director of Surgery



# The NHS in figures

NHS employs **>1.6m**  
people

Top five of the world's  
largest workforces

NHS England employs  
**>1.3m** people

NHS England deals with  
**>1 million** patients  
every 36h

NHS Budget  
In 1948: **£437m**  
Now: **£115.4bn**

Most impressive  
healthcare system  
(Commonwealth Fund, 2014)

Free at point of  
treatment

Tax funded

Accountable to  
parliament












# The NHS - resilient and popular

## COUNTRY RANKINGS

Top 2\*

Middle

Bottom 2\*

											
	AUS	CAN	FRA	GER	NETH	NZ	NOR	SWE	SWIZ	UK	US
<b>OVERALL RANKING (2013)</b>	4	10	9	5	5	7	7	3	2	1	11
<b>Quality Care</b>	2	9	8	7	5	4	11	10	3	1	5
Effective Care	4	7	9	6	5	2	11	10	8	1	3
Safe Care	3	10	2	6	7	9	11	5	4	1	7
Coordinated Care	4	8	9	10	5	2	7	11	3	1	6
Patient-Centered Care	5	8	10	7	3	6	11	9	2	1	4
<b>Access</b>	8	9	11	2	4	7	6	4	2	1	9
Cost-Related Problem	9	5	10	4	8	6	3	1	7	1	11
Timeliness of Care	6	11	10	4	2	7	8	9	1	3	5
<b>Efficiency</b>	4	10	8	9	7	3	4	2	6	1	11
<b>Equity</b>	5	9	7	4	8	10	6	1	2	2	11
<b>Healthy Lives</b>	4	8	1	7	5	9	6	2	3	10	11
<b>Health Expenditures/Capita, 2011**</b>	\$3,800	\$4,522	\$4,118	\$4,495	\$5,099	\$3,182	\$5,669	\$3,925	\$5,643	\$3,405	\$8,508

Source: Commonwealth Fund, Mirror, Mirror on the Wall, 2014 Update How the U.S. Health Care System Compares Internationally, p. 7.



# Drivers of increased demand

- **Technological advances** in diagnosis and treatment are the biggest driver of increased cost of care delivery
- **Increased prosperity and expectation** along with medical price inflation and increased cost of delivering care account for much of the rest of the increase in demand
- **Ageing population.** People with multiple long term conditions expected to rise from 1.9m in 2008 to 2.9m in 2018
- **Growing population.** Population grew by 7.3% from 2003 to 2013

# Overview of UK Population

- In 2016 population was 65.6 million – largest ever
- UK Population projected to continue to grow reaching over 74million by 2039
- The UK population is getting older
  - 18% aged 65 and over
  - 2.4% aged 85 and over
- In 2016 there were 285 aged 65 and over for every 1000 people aged between 16-64 yrs of age. That is traditional working age.

Source ONS July 2017

# The Financial Challenge

- NHS England forecast £30bn per annum extra needed by 2020
- Government has promised £8bn
- £22bn required per annum in efficiency savings by 2020
- Equivalent to productivity increase of 2/3% per year
- NHS long term efficiency increase averages 0.8% per year

# The Carter Report



## **Operational productivity and performance in English NHS acute hospitals: Unwarranted variations**

An independent report for the Department of Health  
by Lord Carter of Coles

### **Lord Carter of Coles refers to GS1 standards**

“A typical hospital can save £3m every year by adopting GS1 standards.”

#### GS1 standards...

- Support the £750m Procurement Transformation Programme
- Deliver the structured data supporting electronic prescribing and medicines administration
- Enable eRostering, patient level costing and Electronic Patient Records

# Why Are We Doing This?

## Lord Carter Recommendations

- Lord Carter was asked in the summer of 2014 by the health secretary to assess what efficiency improvements could be generated in hospitals across England.
- He provided an interim report on his work in June 2015, in which he outlined that potentially £5bn of operational efficiency savings could be delivered in the acute sector by 2020 by improving workforce costs, hospital pharmacy medicines optimisation, and estates and procurement management.
- 15 Recommendations Identified

# Why do it ?

- The NHS procures 1.7m different items
- 61 Trusts purchased 1750 different cannulae
- One Trust bought 177 different types of rubber gloves
- £2 – 4bn savings per year from GS1 standards to allow cost comparison between Trusts

# NHS eProcurement Strategy

Derby Teaching Hospitals **NHS**  
NHS Foundation Trust



NHS eProcurement Strategy

April 2014

In 2014, the Department of Health mandated the use of GS1 standards within the **eProcurement strategy**

Every healthcare provider and every supplier of every product and service into the NHS **must comply with GS1 standards by 2020**

NHS Provider and Supplier contracts will reflect this

SCAN  SAFETY

# Scan4Safety Programme

- The Department of Health has mandated that all NHS Trusts must adopt **GS1** standards and all their suppliers must become **GS1** compliant
- GS1 standards provide the foundation for integrated patient care in the NHS by enabling the globally unique identification of every **person**, every **product** and every **place**
- GS1 standards support compliance to the FMD and UDI legislation
- GS1 UK work closely with the Ministry of Health and Regulatory authorities




# Demonstrator Sites of Excellence

Derby Teaching Hospitals   
NHS Foundation Trust

Six NHS Trusts are being fully-funded by the Department of Health to become **demonstrator sites of excellence**

Each of these six NHS Trusts will show – in a real-life setting – the benefits of GS1 standards

The Leeds Teaching Hospitals   
NHS Trust

Royal Cornwall Hospitals   
NHS Trust

North Tees and Hartlepool   
NHS Foundation Trust

Plymouth Hospitals   
NHS Trust

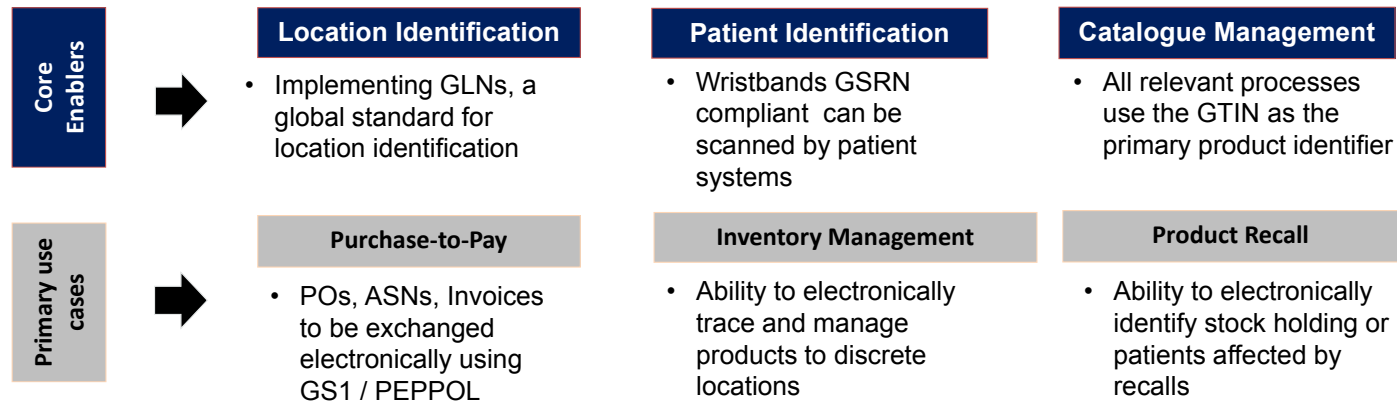
Derby Teaching Hospitals   
NHS Foundation Trust

Salisbury   
NHS Foundation Trust

SCAN  SAFETY

# Scan4Safety Programme Activities

Two year programme of work focusing on;



Derby are now accredited and are the first trust in the UK

# Litigation Liability in the NHS

- £1.5billion year end April 2016
- Projected spend 17/18 £1.95 billion
- Current estimated total liability £56.1 billion
- More claims, more lawyers and larger claims
- Keen to introduce GS1 as the patient safety initiative
- Adverse in-hospital events** – 11<sup>th</sup> out of 20 top risk factors for death in UK

# SUI – Clinical Management

**hTrak Report**    **Patient Ref: 20000468**    **Procedure Date: 20-08-2015**    **Page 1 of 4**

Patient Class:	NHS	Facility:	DCSURG2
Operation Type:	Elective	Facility Cost:	20.00
		Hand Held User:	JARRETT ROBERT

Procedure Codes					
Procedure	Item Codes	Theatre Band	Band Amount	Hand Held User	Scan Date/Time
Speciality - MaxFax	MaxFax			JARRETT ROBERT	20-08-2015 09:34:26
Excision of lesion of skin of head or neck NEC	S065			JARRETT ROBERT	20-08-2015 17:01:21
Other specified excision of mandible	V148			JARRETT ROBERT	20-08-2015 09:35:33
Total prosthetic replacement of temporomandibular joint	V201			JARRETT ROBERT	20-08-2015 09:35:19
Other specified other operations on temporomandibular joint	V218			JARRETT ROBERT	20-08-2015 09:35:47
Bilateral operation	Z941			JARRETT ROBERT	20-08-2015 09:36:01

Procedure Timing				
Timing Point Name	Date & Time Stamp	Hand Held/HRS User	Facility Usage Duration	Procedure Duration
Anaesthetic Start	20-08-2015 08:55:00	JARRETT ROBERT	(HH:MM:SS)	(HH:MM:SS)
Into Theatre	20-08-2015 09:31:00	JARRETT ROBERT	08:15:00	07:07:00
Start of Procedure	20-08-2015 09:42:00	JARRETT ROBERT		
End of Procedure	20-08-2015 16:49:00	JARRETT ROBERT		
Out of Theatre	20-08-2015 17:10:00	TREECE MICHELLE		

Attending Staff				
Staff ID	Staff Name	Staff Type	Staff Role	Duration
10705996	PEGG IONA	Theatre Practitioner	Scrub Practitioner	08:15:00
10708823-2	YOUNG WENDY	Theatre Practitioner	ODP	08:15:00
10709402	CHESSHIRE NICHOLAS	Anaesthetist	Anaesthetist	08:15:00
10712453-2	JARRETT ROBERT	Health Care Assistant	Health Care Assistant	08:15:00
10713251	CAJUDO EUGENE	Theatre Practitioner	Scrub Practitioner	08:15:00

Affix Patient Label Here

Patient Ref: 20000468

Procedure Date: 20-08-2015

Hospital: Derby Hospital

Department: General Theatres

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SCAN+SAFETY

# SUI – Clinical Management

**hTrak Report Patient Ref: 20000468 Procedure Date: 20-08-2015 Page 2 of 4**

Staff ID	Staff Name	Staff Type	Staff Role	Duration
10717765	KORCZAK PETER	Consultant	Session Consultant	08:15:00
20192998-2	MCKEVITT KATHRYN	Theatre Practitioner	ODP	08:15:00
21264330	TREECE MICHELLE	Health Care Assistant	Health Care Assistant	08:15:00
23147791-2	SALHA RAMI	Surgeon	Surgeon 1	08:15:00
24685788	CHARADVA HEMAL	Surgeon	Surgeon 3	08:15:00
24686159	SAFDAR SAQIB	Surgeon	Surgeon 3	08:15:00
25128376	SELBONG UTHAYA	Surgeon	Surgeon 2	08:15:00

Anaesthetic			
Anaesthetic Key	Anaesthetic Description	Hand Held User	Scan Date/Time
GENA0AES	General Anaesthetic	JARRETT ROBERT	20-08-2015 08:18:46

Time Out Questions			
Time Out Question	Answer	Hand Held User	Answer Date/Time
Delay Reasons	Bed availability - Step-down Bed	JARRETT ROBERT	20-08-2015 09:36:28
Procedure Outcome	Completed as planned	JARRETT ROBERT	20-08-2015 11:12:36

Products Used								
Item No.	Supplier Product Code	Description	Qty	Price	Consumption Type	Lot No.	Expiry Date	Ext. Price
1	0033120	Disposable sucker Frazier 12FG	1	3.80	Normal			3.80
2	0302DC009703	Mr Korczak's Obwegesar Periosteal Elevator Set	1	5.57	Normal	0302DC009703		5.57
3	1012309EA	Small Swabs 10*7.5cm 32 Ply	5	0.70	Normal			3.50
4	24-6610	DRILL 1.5 X 50 11MM STP J-NOTCH	1	44.00	Normal			44.00
5	24-6614	DRILL 2.0 X 70 12 STP J-NOTCH	1	64.00	Normal			64.00
6	28170	COTTON WOOL BALLS LARGE X5 (1011449)	1	0.88	Normal			0.88
7	91-2710	CROSS DRIVE EMERGENCY SCREW 2.7X10MM HT	12	25.00	Normal	912710		300.00
8	91-2712	CROSS DRIVE EMERGENCY SCREW 2.7X12MM HT	2	25.00	Normal	912712		50.00
9	99-6579	FOSSA CROSS DRIVE SCREW 2.0X9mm	1	52.00	Normal	996579		52.00

Affix Patient Label Here

Patient Ref: 20000468  
Procedure Date: 20-08-2015  
Hospital: Derby Hospital  
Department: General Theatres

# SUI- Clinical Management

hTrak Report Patient Ref: 20000468

Procedure Date: 20-08-2015

Page 3 of 4

Item No.	Supplier Product Code	Description	Qty	Price	Consumption Type	Lot No.	Expiry Date	Ext. Price
10	99-6581	FOSSA CROSS DRIVE SCREW 2.0X11mm	11	52.00	Normal	996581		572.00
11	E013903	Facial Tray	1	48.54	Normal	E013903		48.54
12	E015602	Wiring of Jaw	1	26.10	Normal	232229606		26.10
13	E015702	Zimmer Micro Air Saw	1	11.15	Normal	E015702		11.15
14	E070201	Mr Jones Freers Elevators	1	5.46	Normal	232036342		5.46
15	E078401	OSTEOTOMY TRAY SET 1	1	26.10	Normal	232246974		26.10
16	ELW054	IV3000 Moisture Responsive Film Cannula Dressing One Hand Application 10cm x 12cm Sterile X50	2	1.61	Normal			3.23
17	ELW213	Tegaderm 10cm x 12cm	1	0.61	Normal			0.61
18	FKA412	Foley catheter with temp probe 12fr	1	7.53	Normal			7.53
19	FSF325	SWANN-MORTON NO 10 Carbon Sterile Blades	4	0.08	Normal			0.30
20	FTE893	Biogel Surgeons 7.0	2	1.16	Normal			2.31
21	FTR044	Needles 21G x 1 1/2" - Nr 2	1	0.02	Normal			0.02
22	FVS030	ETHILON BLU 45CM M1 USP5/0 SGLE ARMED PC-3 PRIME	4	2.12	Normal	JAB832	31-07-2019	8.46
23	FVU066	VICRYL UND 45CM M1.5 USP4/0 SGLE ARMED PS-2	7	3.18	Normal	JD5GCXM	30-06-2020	22.23
24	FVU408	VICRYL VIO 12X45CM M3 USP2/0 NON NEEDLED	1	6.07	Normal	JA8GPRR0	30-06-2020	6.07
25	FWC021	SYRINGE LUER SLIP 20ml	2	0.09	Normal			0.19
26	FWC128	10ml Syringe	1	0.06	Normal			0.06
27	FWP173	Female Suction tube	1	0.88	Normal			0.88
28	FWV163	Urine Bag 500ml	2	4.71	Normal			9.42
29	IJ022207	PACK CATHETER (1011938) ST	1	1.97	Normal			1.97
30	MDM5023141.LH	OSC/SAG BLADE	1	24.50	Normal			24.50
31	NS-111001	Uni Glove (Light Handle)	1	0.92	Normal			0.92
32	PFT489	MAX FAX PACK	1	6.42	Normal			6.42
33	S92-145	MICRODRIV RECIP.BLADE	1	12.70	Normal			12.70
34	SU00074490	Mr Sharps Jamesons Scissors x 2	1	1.98	Normal	232244465		1.98
35	SU00131946	Magna Drape (ENT Th)	1	1.98	Normal	SU00131946		1.98
36	TMJ-FOSSA-DERBY	TMJ Fossa ( Custom Made for Derby)	1	4,250.00	Normal	534650		4,250.00
37	TMJ-FOSSA-DERBY	TMJ Fossa ( Custom Made for Derby)	1	4,250.00	Normal	534670		4,250.00

Affix Patient Label Here

Patient Ref: 20000468

Procedure Date: 20-08-2015

Hospital: Derby Hospital

Department: General Theatres

SCAN+SAFETY



# SUI – Clinical Management

**hTrak Report**    **Patient Ref: 20000468**    **Procedure Date: 20-08-2015**    **Page 4 of 4**

Item No.	Supplier Product Code	Description	Qty	Price	Consumption Type	Lot No.	Expiry Date	Ext. Price
38	TMJ-MANDIBLE-DERBY	TMJ Mandible (Custom Made for Derby)	1	4,250.00	Normal	534640		4,250.00
39	TMJ-MANDIBLE-DERBY	TMJ Mandible (Custom Made for Derby)	1	4,250.00	Normal	534660		4,250.00
40	TMJLOAN	TMJ Loan Set Fee	1	410.00	Normal	TMJLOAN		410.00
41	U000670499118	GENVENT theatre consumable pack	1	0.00	Normal	U000670499118		0.00
42	U02924EX0468324	1 x Pencil - ENT Theatre	1	1.55	Normal	U02924EX0468324		1.55
43	VJD2678	OPSITE INCISE DRESSINGS Wound & Incise Drape Transparent Film Dressings Green Handle Application 28cm x 45cm Sterile X10	1	4.70	Normal			4.70
44	VJH489	OP-tape 9x49cm	3	0.43	Normal			1.28
Product Totals			88					18,742.41

**Name:** \_\_\_\_\_

**Signature:** \_\_\_\_\_

Affix Patient Label Here

Patient Ref: 20000468

Procedure Date: 20-08-2015

Hospital: Derby Hospital

Department: General Theatres

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SCAN  SAFETY

# Nerve Stimulator





# Clinical Management Information

## Laparoscopic Cholecystectomy Consumable Costs and Consultant Variation

Consultant Description	Avg Consumable Cost	Avg No of Products	Avg No of Staff	Avg Minutes	No of Procedures	Lower Quartile	Upper Quartile	Variance	Std Deviation	Avg LoS	Max LoS	Min LoS
Cons A	£285	82	5	181	1	£285	£285	£0	-	3.00	3.00	3.00
Cons B	£239	74	7	127	3	£232	£250	£37	£19	1.00	1.00	1.00
Cons C	£231	70	6	123	6	£192	£255	£160	£59	1.83	5.00	1.00
Cons D	£227	70	6	98	9	£197	£248	£146	£45	1.56	6.00	1.00
Cons E	£223	70	5	100	11	£216	£235	£120	£31	1.27	4.00	1.00
Cons F	£218	69	6	93	6	£203	£238	£60	£14	1.00	1.00	1.00
Cons G	£209	62	6	79	8	£192	£231	£103	£38	1.63	4.00	1.00
Cons H	£188	64	7	90	9	£164	£224	£149	£53	1.25	2.00	1.00

# Why GS1? The benefits are obvious

- **Procurement**

- Accurate identification of suppliers, products and packs sizes – error free trading
- Better management of stock – potential for £1.5bn of stock in NHS to be halved
- Faster processing and faster payment – savings in credit control and accounts payable

- **Patient safety**

- Reducing 'never events' and preventing falsified medicines into hospitals
- Being able to take faulty products out of hospitals, and recall affected patients

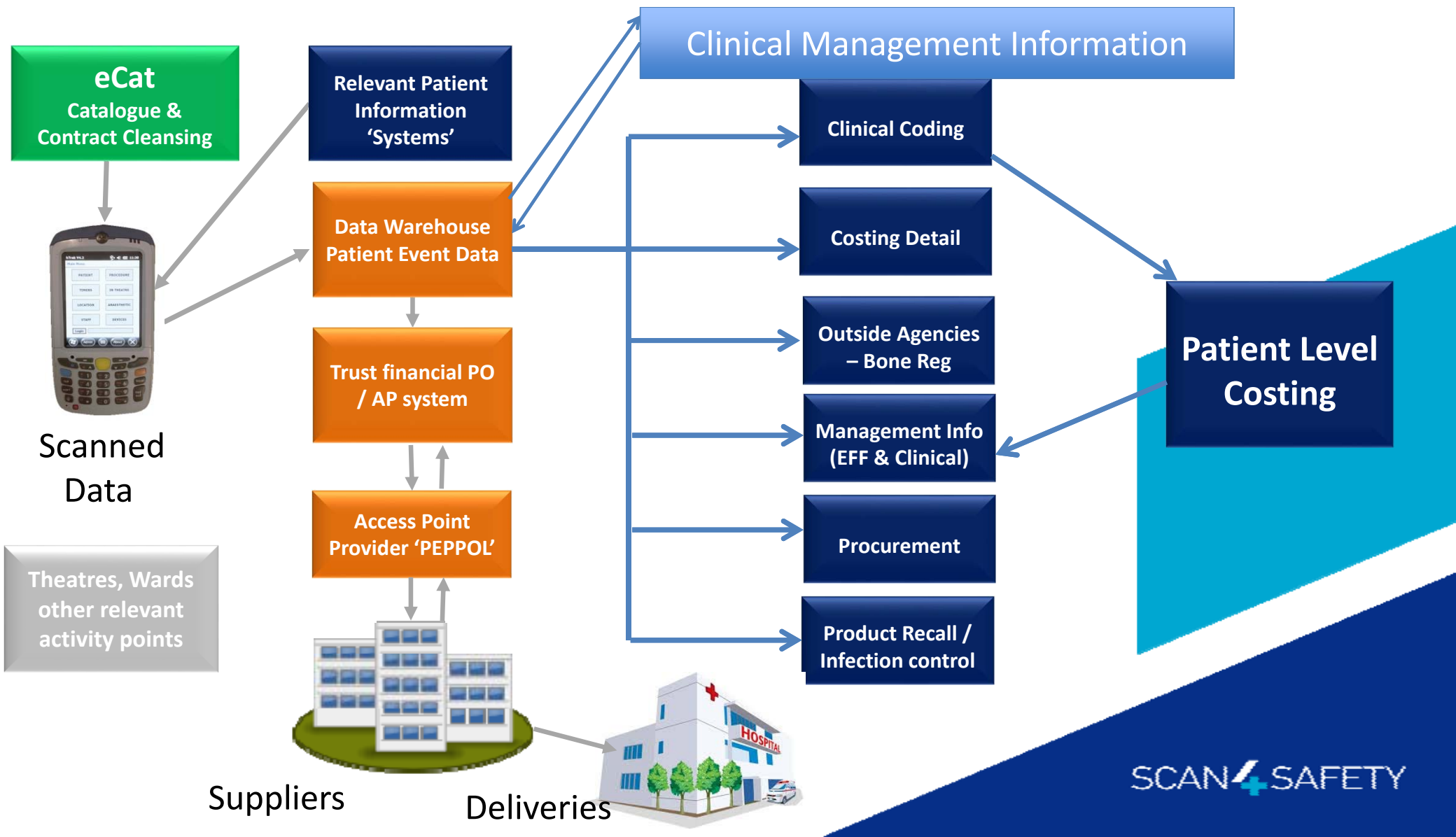
# Clinical Productivity

## Benefits to clinical productivity

- More time caring for patients
- Better understanding of costs
- Better comparison of clinical performance and optimisation around the best – improving care quality through greater standardisation
- Exposing variation in clinical practice and enabling the difficult conversation about why it exists.

Consultant									
Consultant Description	Avg Consumable C...	Avg Nu of Products	Avg Nu of Staff	Avg Minutes	Nu of Procedur...	Lower Quartile	Upper Quartile	Variance	Std Deviation
Mr Chiu	£132	55	7	58	15	£111	£148	£65	£22
Mr D Laugharne	£128	53	5	19	1	£128	£128	£0 -	
Mr P Korczak	£124	53	7	61	9	£102	£142	£66	£24
J Stenhouse	£122	49	7	68	4	£92	£150	£65	£35
Mr K Jones	£106	49	9	40	10	£73	£140	£122	£43

Source: Derby Teaching Hospitals NHS Foundation Trust





Derby Teaching Hospitals **NHS**  
NHS Foundation Trust



SCAN  SAFETY

It all starts with a simple scan













The Global Language of Business

# Scan4Safety

## - A nursing perspective

32<sup>nd</sup> Global GS1 Healthcare Conference  
Chicago, US

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Ms. Lorna Wilkinson, Director of Nursing, Salisbury NHS Foundation Trust, UK

October 17<sup>th</sup>, 2017



# **Scan4Safety**

## **The Adoption of GS1 Standards**

### **A Chief Nurse Perspective**

Lorna Wilkinson  
Chief Nurse  
Salisbury NHS Foundation Trust  
Oct 2017

SCAN  SAFETY

# Salisbury NHS Foundation Trust



# Director of Nursing

- Nurses, Midwives, Allied Health Professionals
- Clinical Standards
- Patient Safety
- Patient Experience
- Regulatory Requirements



Patient Safety

Reducing Variation

Value





# Programme Objectives



## Right Patient

Setting standards to make sure we always have the right patient and know **what** product was used with **which** patient, **when**.



## Right Product

Setting standards to make sure our staff have **what** they need, **when** they need it.



## Right Place

Setting standards to make sure that patients and products are in the right place.



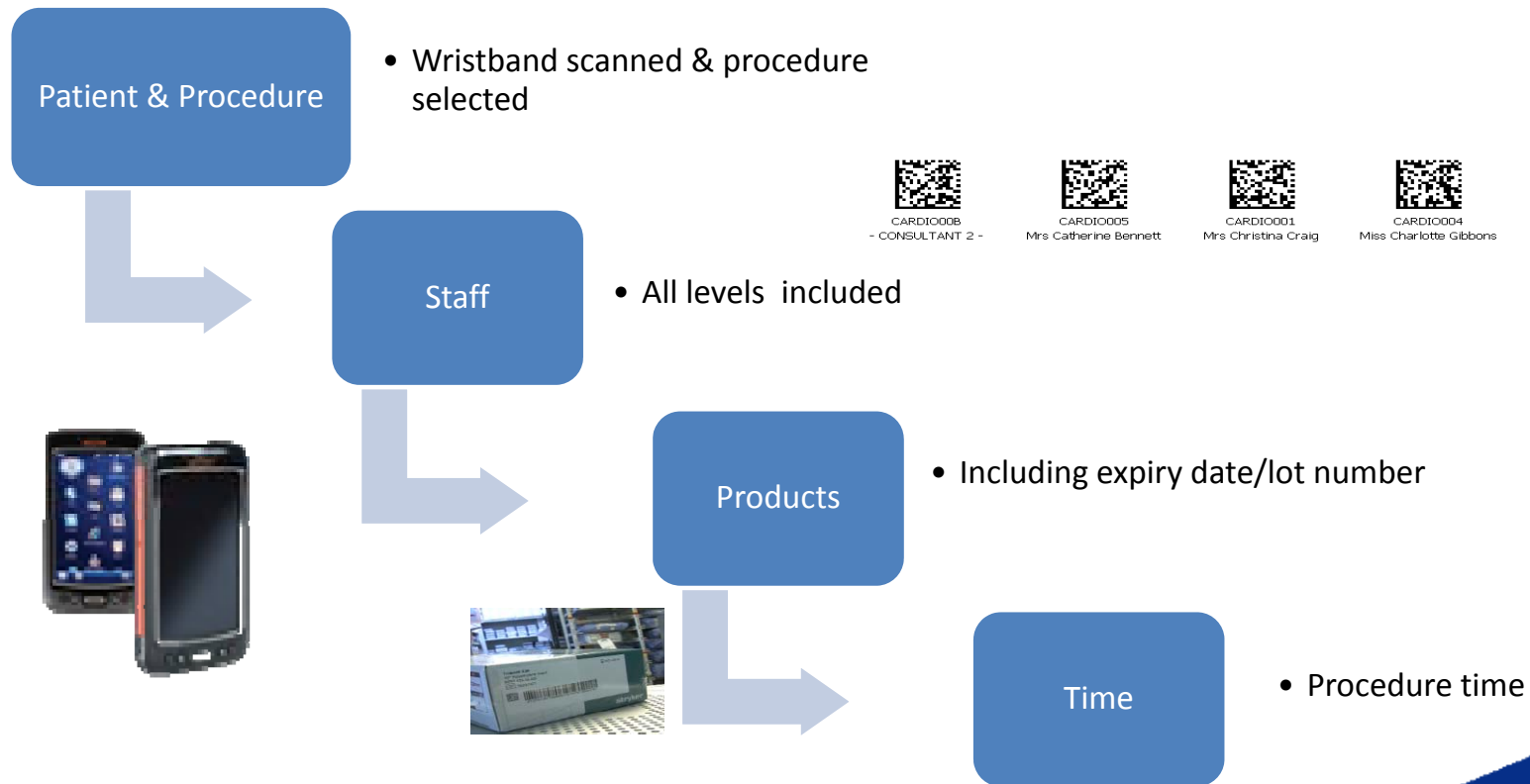
## Right Process

Setting standards and implementing common ways of working to deliver better and more easily repeatable patient care.

# Theatres and Cardiac Suite



# Product – Tracking Implants

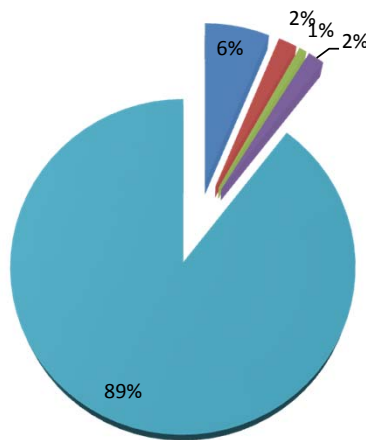




# “My team always check”

What is the risk out of date products are used in Procedures?  
10,019 Products (Individuals) on shelf in Orthopaedics?

Orthopaedic Implants March 2017



Category	Number of Items on shelf
Expired on shelf	630
Within 1 Month	184
Within 2 Months	76

- Expired
- 1 Month
- 2 Months
- 3-6 Months
- Over 6 Months

# Product Tracking = Patient Safety

Staff responsible for **manually checking** expiry dates

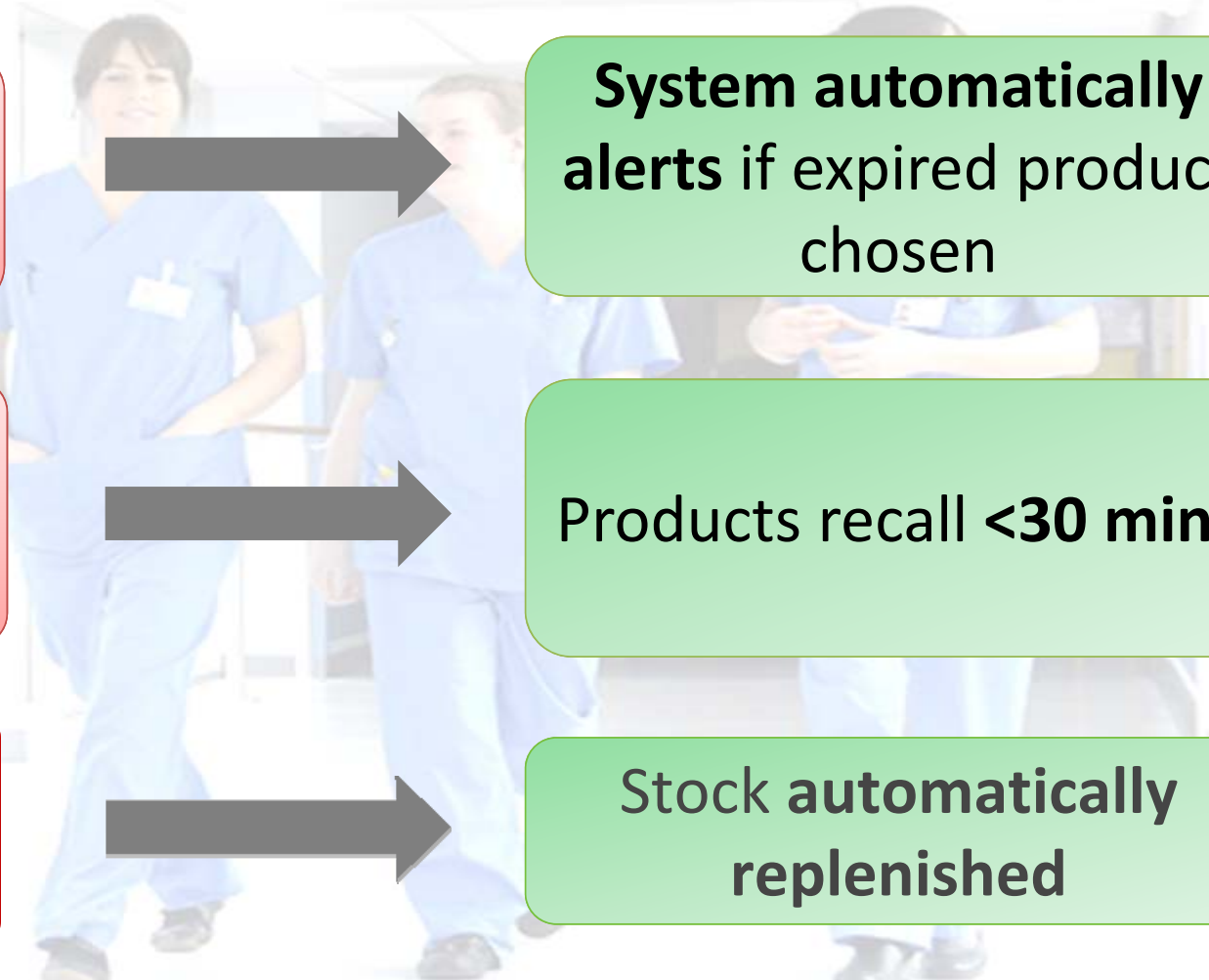
Product recalls **took hours/weeks**

Staff **manually re-ordering** stock

**System automatically alerts** if expired product chosen

Products recall **<30 mins**

Stock **automatically replenished**



# Wards



# Patient: positive patient identification

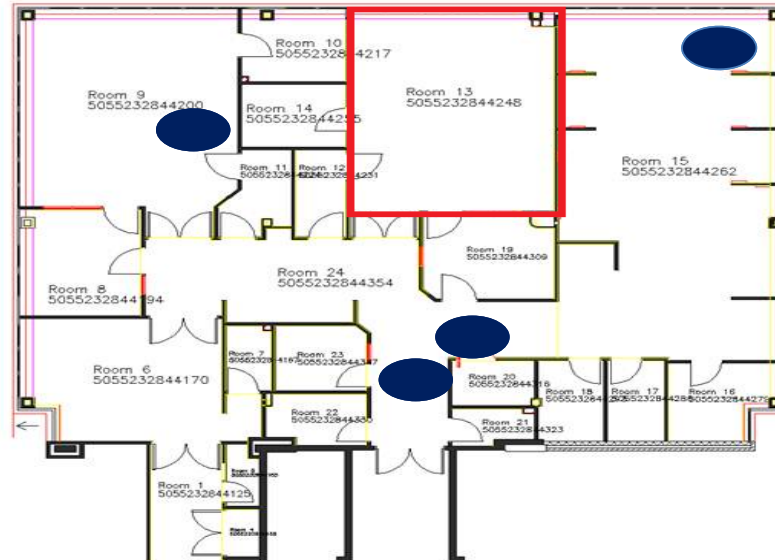
- **Patient Observations** - Scanning patient wristbands to assign observations.
- **Blood Products** - Scanning patient wristbands to receipt and transfuse blood.
- **Point of Care Testing** - Scanning patient wristbands to assign blood test.

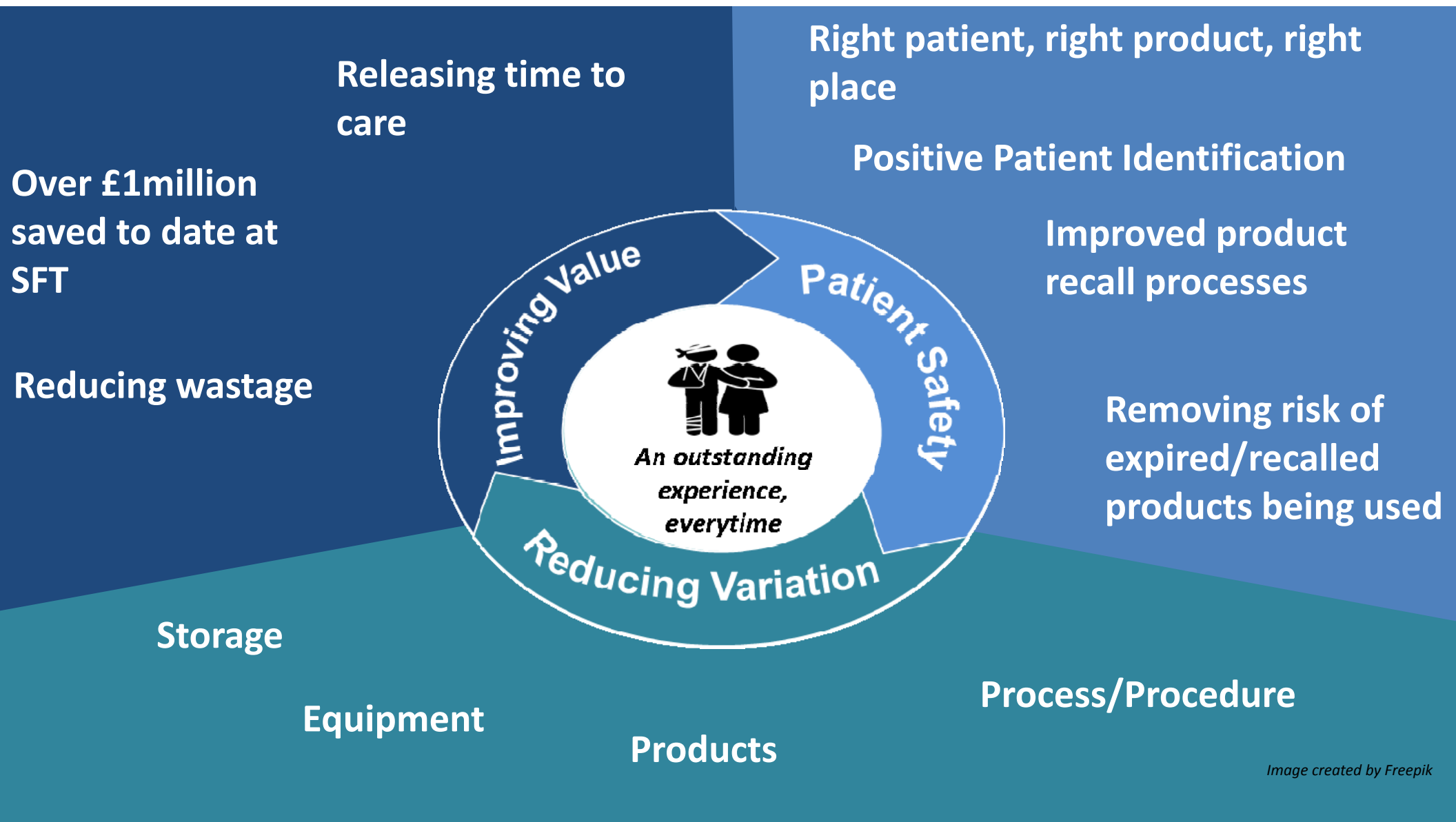


# “If only I knew where ?”

“Please can all areas check whether they have the Doppler that belongs to recovery and return it asap it is required in theatre ten for surgery”

“Where do falls occur and how can we prevent them ?”





# Questions?



[Scan4Safety@salisbury.nhs.uk](mailto:Scan4Safety@salisbury.nhs.uk)



[@SFTScan4Safety](https://twitter.com/SFTScan4Safety)





The Global Language of Business

# Scan4Safety: The Adoption of GS1 Standards A Chief Pharmacist's Perspective

32<sup>nd</sup> Global GS1 Healthcare Conference  
Chicago, US

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Mr. Iain Davidson, Chief Pharmacist & CCIO, Royal Cornwall Hospitals NHS Trust, UK

October 17<sup>th</sup>, 2017



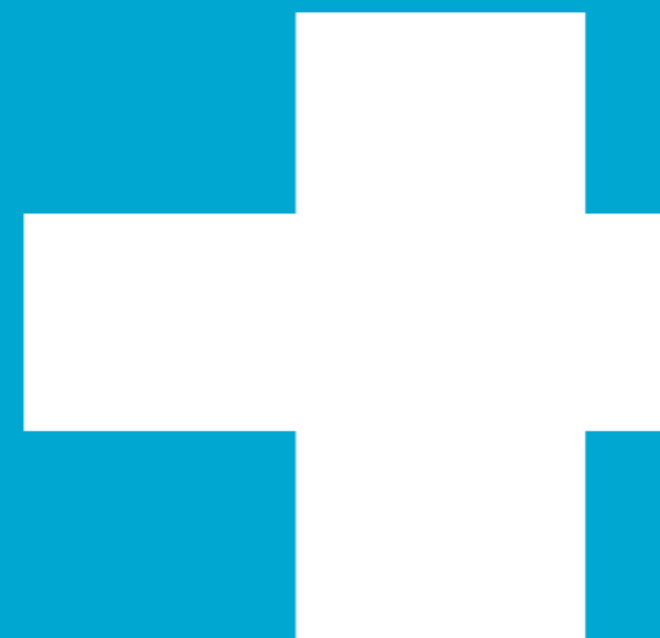


# Scan4Safety

## The Adoption of GS1 Standards

### A Chief Pharmacist's Perspective

Iain Davidson  
Chief Pharmacist & CCIO  
Royal Cornwall Hospitals Trust  
– Oct 17





# Objectives



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## Right Product

Setting standards to make sure our staff have **what** they need, **when** they need it.



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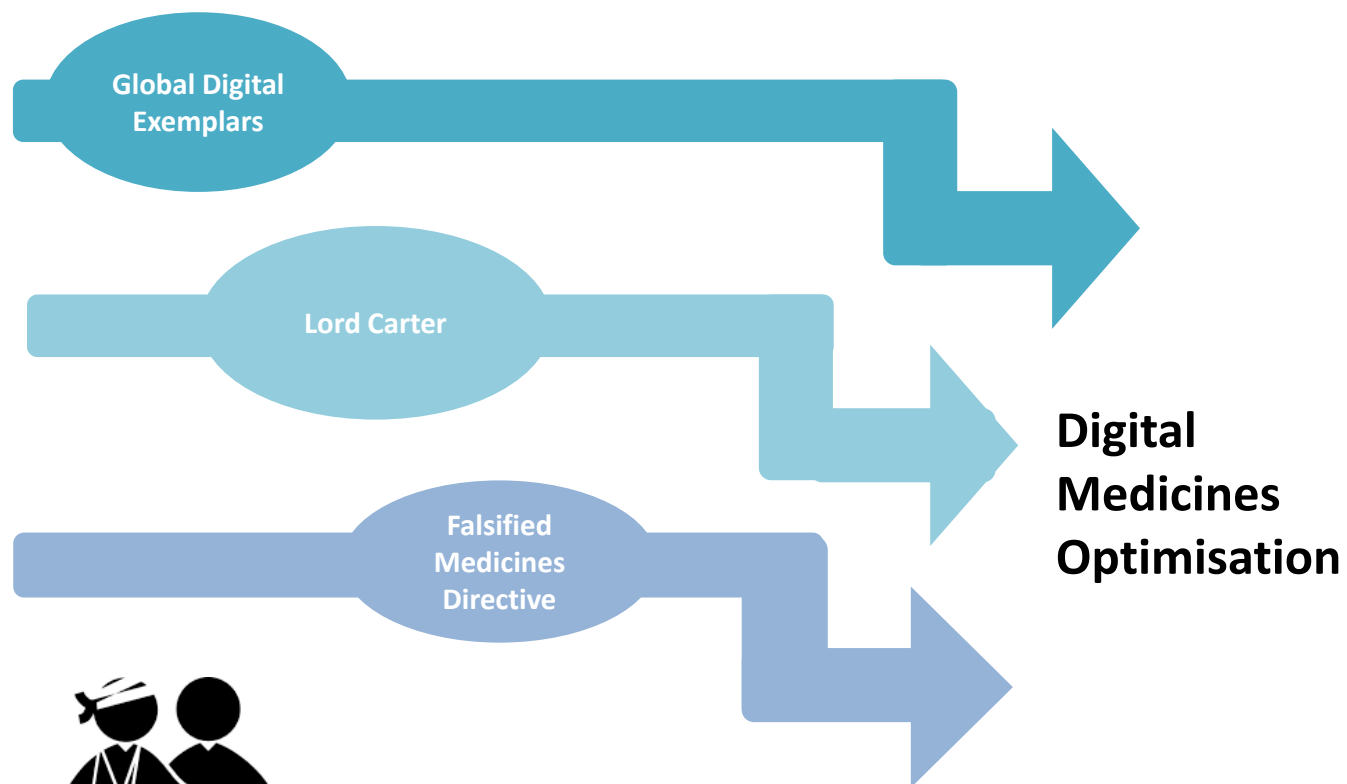


Improve Efficiency

Improve Patient Safety

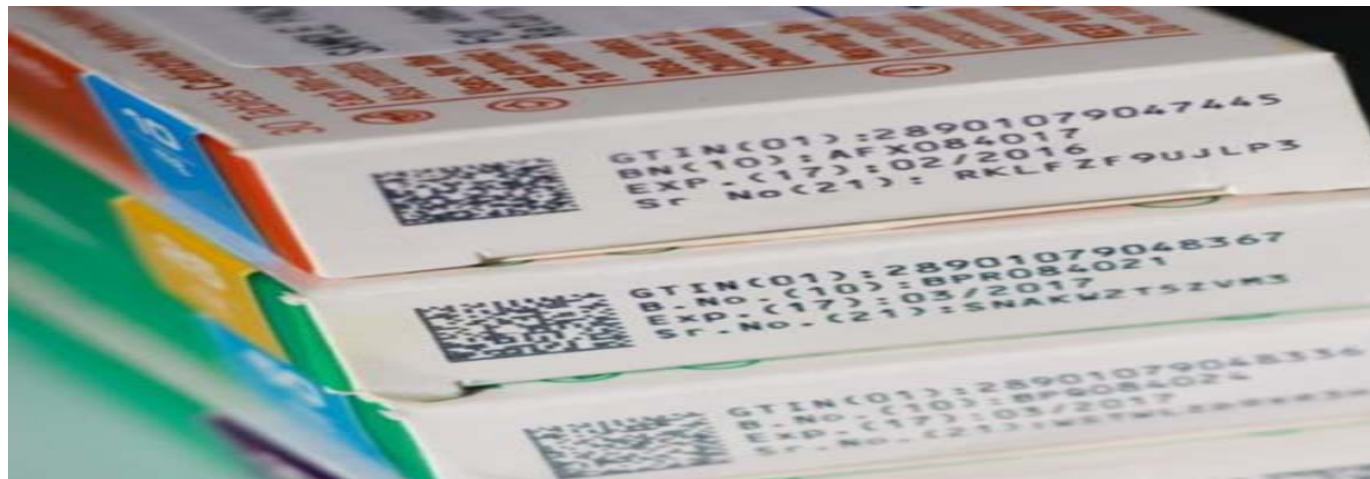
Release Time to Care

# Key Drivers



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# The Falsified Medicines Directive



**Falsified  
Medicines  
Directive**

SCAN  SAFETY

# Lord Carter Report



## Operational productivity and performance in English NHS acute hospitals: Unwarranted variations

An independent report for the Department of Health  
by Lord Carter of Coles

February 2016

SCAN  SAFETY



Headline Metrics

Trust Level

Top Ten Medicines

Compartment downloads

Guidance

Export to Excel

Export to PDF

Print

Money & Resources

	Period	Trust Actual	Peer Median	Benchmark Value	Info	Variation	Trend
Top 10 Medicines – Savings Delivered to Current Month	To Aug 2017	£930.90k	-	£927.98k			
Top 10 Medicines - % Delivery of Savings Target Achieved to Current Month	To Aug 2017	100%	98%	100%			

Safe

	Period	Trust Actual	Peer Median	National Median	Info	Variation	Trend
Total Antibiotic Consumption in DDD*/1,000 Admissions	2016/17	3,306	3,976	4,302			
% Diclofenac vs Ibuprofen & Naproxen (Monthly)	Aug 2017	25.40%	38.95%	35.95%			
% ePrescribing Chemotherapy	2015/16	100%	100%	50%			No trendline available
% ePrescribing IP	2015/16	100%	0%	50%			No trendline available
% ePrescribing OP	2015/16	100%	0%	50%			No trendline available
% ePrescribing Discharge	2015/16	100%	0%	60%			No trendline available

Effective

	Period	Trust Actual	Peer Median	National Median	Info	Variation	Trend
Clinical Pharmacy Activity (Pharmacist Time Spent on Clinical Pharmacy Activities)	2015/16	70%	52%	67%			No trendline available
% Pharmacists Actively Prescribing	2015/16	20.0%	12.0%	20.5%			No trendline available
% Medicines Reconciliation Within 24 Hours of Admission	2015/16	63%	44%	73%			





# Global Digital Exemplars



# EMR Adoption Model<sup>SM</sup>

Stage	Cumulative Capabilities
Stage 7	Complete EMR; CCD transactions to share data; Data warehousing; Data continuity with ED, ambulatory, OP
Stage 6	Physician documentation (structured templates), full CDSS (variance & compliance), Closed Loop Medication Administration
Stage 5	Full complement of Radiology PACS
Stage 4	CPOE, Clinical Decision Support (clinical protocols)
Stage 3	Nursing/clinical documentation (flow sheets), CDSS (error checking), PACS available outside Radiology
Stage 2	CDR, Controlled Medical Vocabulary, CDS, may have Document Imaging; HIE capable
Stage 1	Ancillaries – Lab, Rad, Pharmacy - All Installed
Stage 0	All Three Ancillaries Not Installed

# Medicines @HIMSS Level 7



1. Paperless prescribing.
2. Closed loop medicines administration.
3. Closed loop medicines supply.

# Medicines- The Case for Change



SCAN  SAFETY

# Medicines- The Case for Change



SCAN  SAFETY



# Medicines- The Case for Change



SCAN  SAFETY

# Medicines- The Case for Change



SCAN  SAFETY



# Use Cases

## GTIN- Product name- link to dm+d

- Closed loop administration
- Closed loop supply
- Scanning at meds rec
- Advanced shipping notices
- Accurate non-robot dispensing

## Batch Number-

- Support Product Recall throughout the Supply Chain

## Expiry date-

- Support stock control and patient safety

- Serialisation Number-required for Falsified Medicines Directive
- Patient level costing



‘GTIN+ Extensions’



## Medication Without Harm



WHO Global Patient Safety Challenge

SCAN  SAFETY

## Medication Without Harm

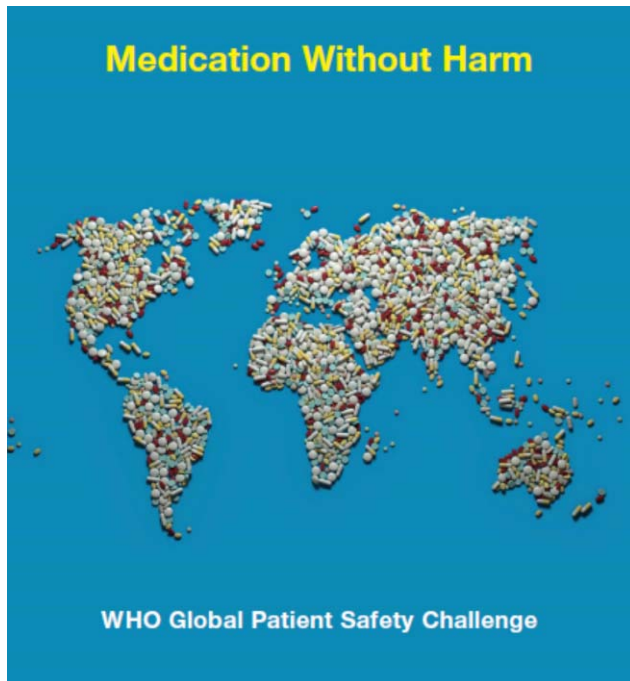
**Reduce the level of severe, avoidable harm related to medications by 50% over 5 years, globally**

- The scale and nature of this harm differs between low-, middle- and high-income countries. Globally, the cost associated with medication errors has been estimated at US\$ 42 billion annually.

- Errors occur most frequently during administration, however there are risks at different stages of the medication process.

**WHO Global Patient Safety Challenge**

SCAN  SAFETY



- Errors occur most frequently during administration, however there are risks at different stages of the medication process.

## Barcode Enabled Medicines Administration (BCMA)

- 23% reduction in administration error rate at 1 year, 66% after 5 years<sup>1</sup>
- 41-50% relative risk reduction in administration errors<sup>2</sup>

### The Five Rights


1. right medicine
2. at the right dose
3. at the right time
4. by the right route
5. in the right patient

1. G.A Coyle, M. Heinen, Evolution of BCMA within the department of Veterans Affairs, Nursing Administration Quarterly 29 (1) 2005 32-28
2. Poon et al. Effect of Bar-Code Technology on the Safety of Medicines Administration. New England Journal of Medicine May 2006 pg 1698-1707.

# What Has Scan4Safety &GS1 Delivered for Us?



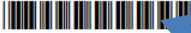

# Barcode Enabled Dispensing

ALREADY VERIFIED


**Royal Cornwall Hospitals**  
 NHS Trust

Drugs Requested on JAC by Notes 27/02/2014 08:30 to 27/02/2014 09:00  
 Please suppress note on JAC after drug is supplied to ward

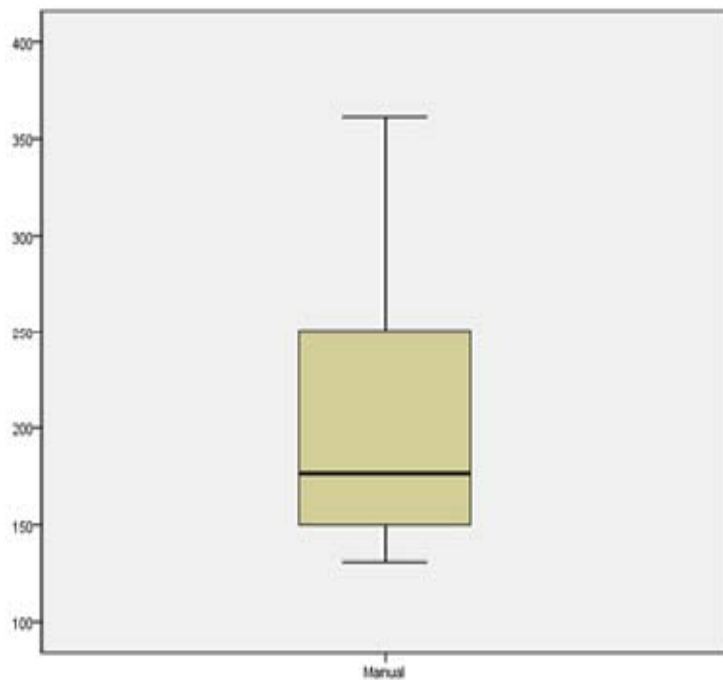
BOTOX WARD

Hospital No	Patient name	Verified	Note
C804047	EDISCHARGE, MAXIMS NINETY	✓	<div> <div>  <p>'GLN'</p> </div> <div> <p>Stock at RCCS: 11 containers 0 du at ROBOT            Stock at RCCS: 0 containers 0 du at ROBOT</p> <p>DOXYCYCLINE 100 mg Capsules STAT dose</p> <p>100 mg oral</p>  <p>'GTIN'</p> </div> </div> <div> <p>27/02/2014 08:34            please suppress            urgently required</p> </div>
C804047	EDISCHARGE, MAXIMS NINETY	✓	<div> <div>  <p>'GSRN'</p> </div> <div> <p>Stock at RCCS: 44 containers 0 du at ROBOT</p> <p>AMOXICILLIN 500 mg Capsules</p> <p>500 mg oral THREE times a DAY (Morning, Lunchtime + Night)</p>  </div> </div> <div> <p>27/02/2014 08:42            urgently required            ASAP ASAP</p> </div>

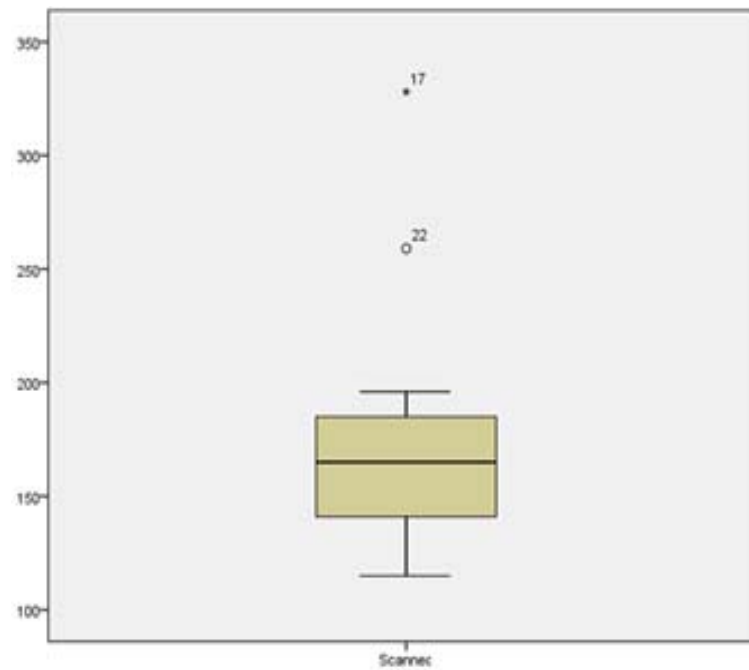
**CRITICAL MEDICINE**

# Faster Dispensing ( $P=0.015$ )

Manual



Scanning





# Safer Dispensing (P<0.001)

## Prevented Error Rates Reduction

	Error type	Dispensing Error Monitoring Period 1 (barcode non mandatory)		Dispensing Error Monitoring Period 2 (barcode mandatory)	
		Prevented Incidents	Rate (%)	Prevented Incidents	Rate (%)
Bar-code Insensitive Errors	Administrative	4	0.11	2	0.04
	Label directions	13	0.35	7	0.15
Total Bar-code Insensitive Errors		17	0.46	9	0.19
Barcode Sensitive Errors	Wrong patient	1	0.03	0	
	Drug strength	5	0.13	0	
	Drug form	3	0.08	0	
	Drug name	2	0.05	0	
	Cost centre	1	0.03	0	
Total Bar-code Sensitive Errors		12	0.32	0	
Total Number of prevented Errors		29		9	
Number of non-stock items dispensed		3730		4667	
Prevented Error Rate (%)		0.78		0.19 (P <0.001)	

## Key Drivers



SCAN+ SAFETY

# Thank You For Listening



[Scan4Safety@nhs.net](mailto:Scan4Safety@nhs.net)



#scan4safety

SCAN+ SAFETY



The Global Language of Business

# Different Viewpoints ..... One Goal

32<sup>nd</sup> Global GS1 Healthcare Conference  
Chicago, US

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Mr. Nick Thomas, Deputy CEO, Plymouth Hospitals NHS Trust, UK

October 17<sup>th</sup>, 2017



# Different Viewpoints ... ... One Goal

**Nick Thomas**

Deputy Chief Executive

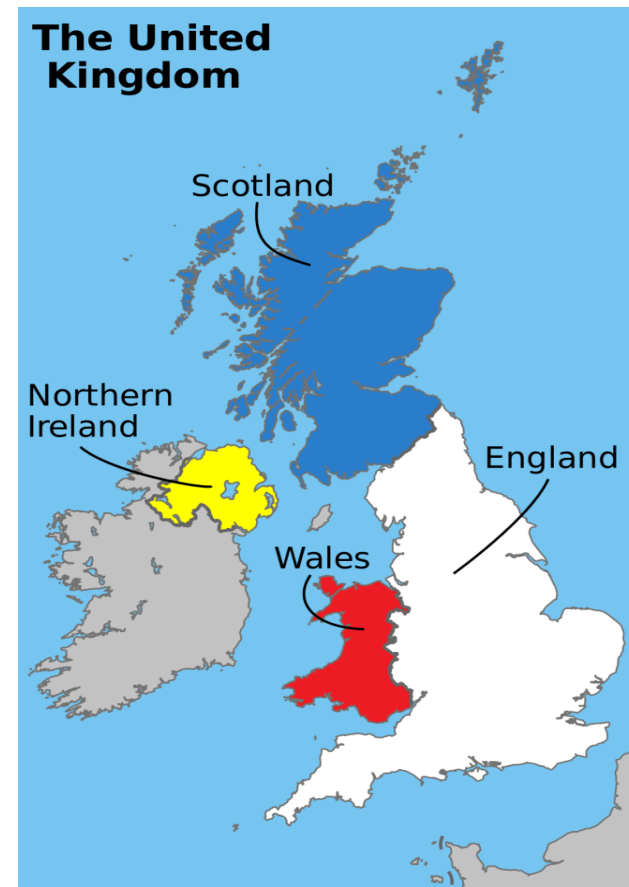
Plymouth Hospitals NHS trust



# Introduction

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- Born in Llanelli, South Wales
- 33 years in NHS, 23 years at Plymouth Hospitals NHS Trust
- Qualified Accountant
- My Board portfolio includes:
  - All major capital schemes
  - The Estate
  - Information Technology
  - Facilities Management
  - Deputy CEO





# What it means to be Welsh ....

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# The City of Plymouth

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- South Coast of Devon, bordering Cornwall
- Population of circa 270,000
- Major tourist area
- Historic Maritime City
- Significant Naval Base
- Large University



THE BEATLES | PLYMOUTH HOE 1967



# Plymouth – now

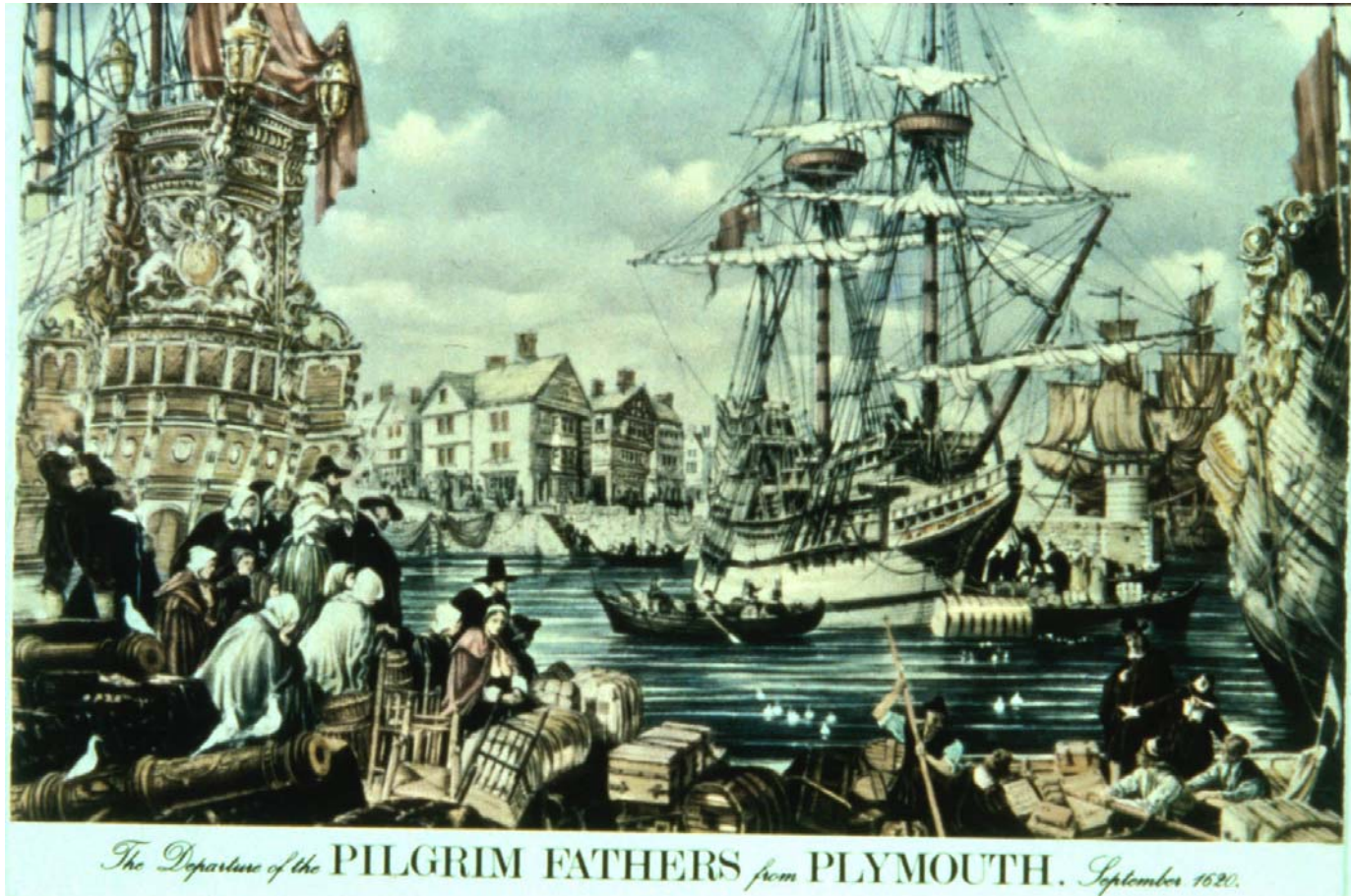
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# Plymouth - then

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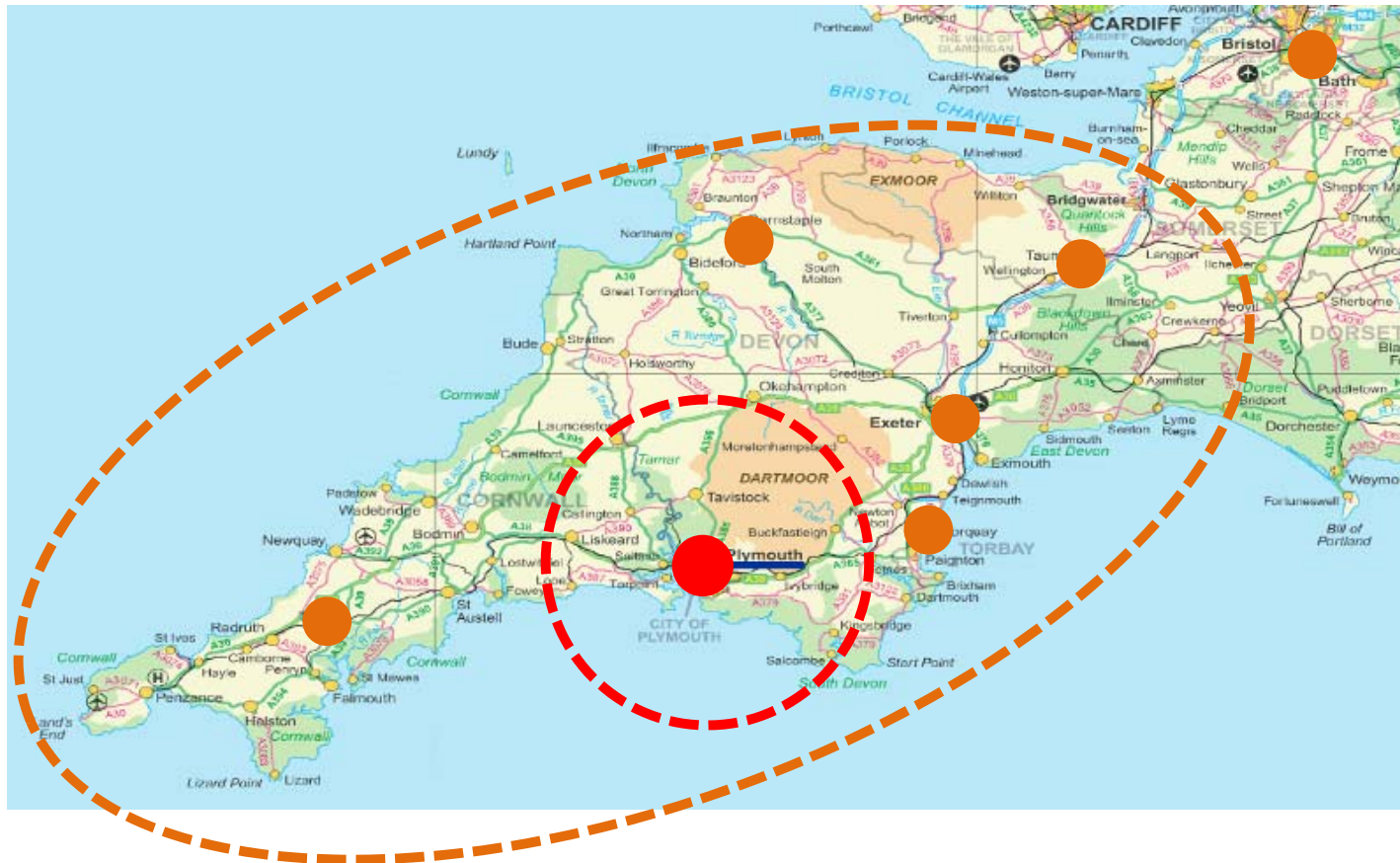


# Plymouth Hospitals NHS Trust

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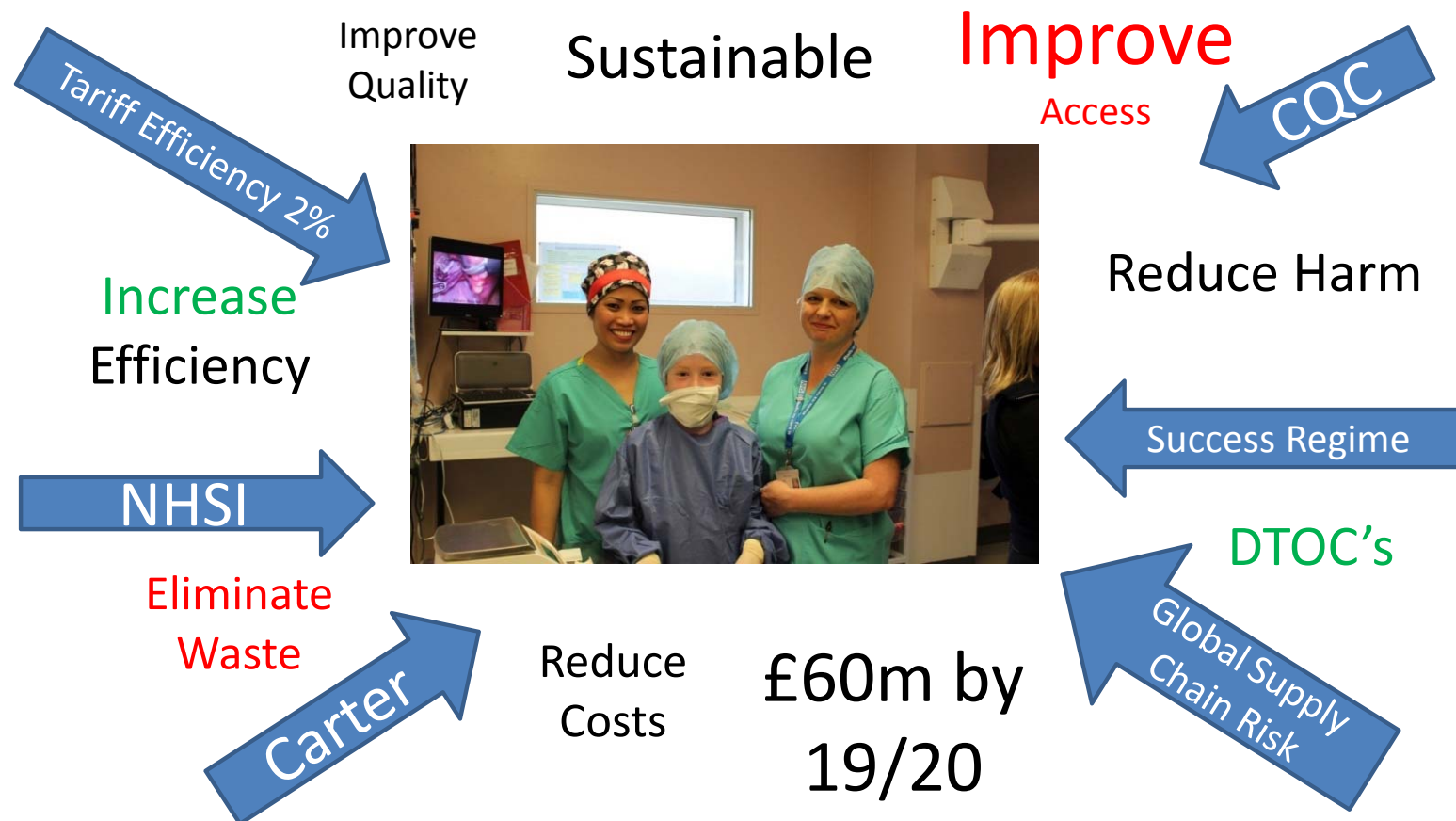


# The area we serve ...





# Unprecedented challenges



## A focus on safety and quality ...

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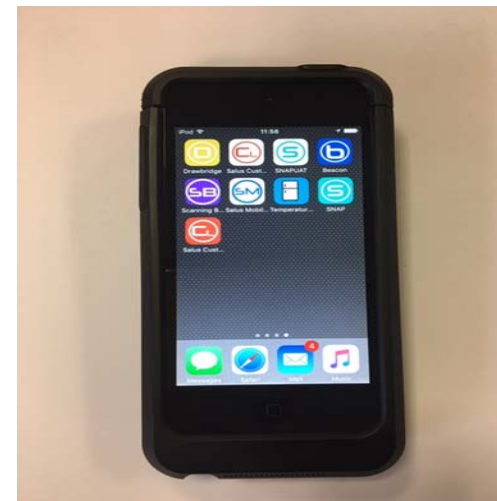
- Positive Patient ID
- Alerts/Product Recall
- Fewer Cancelled Operations
- Improved Access Times



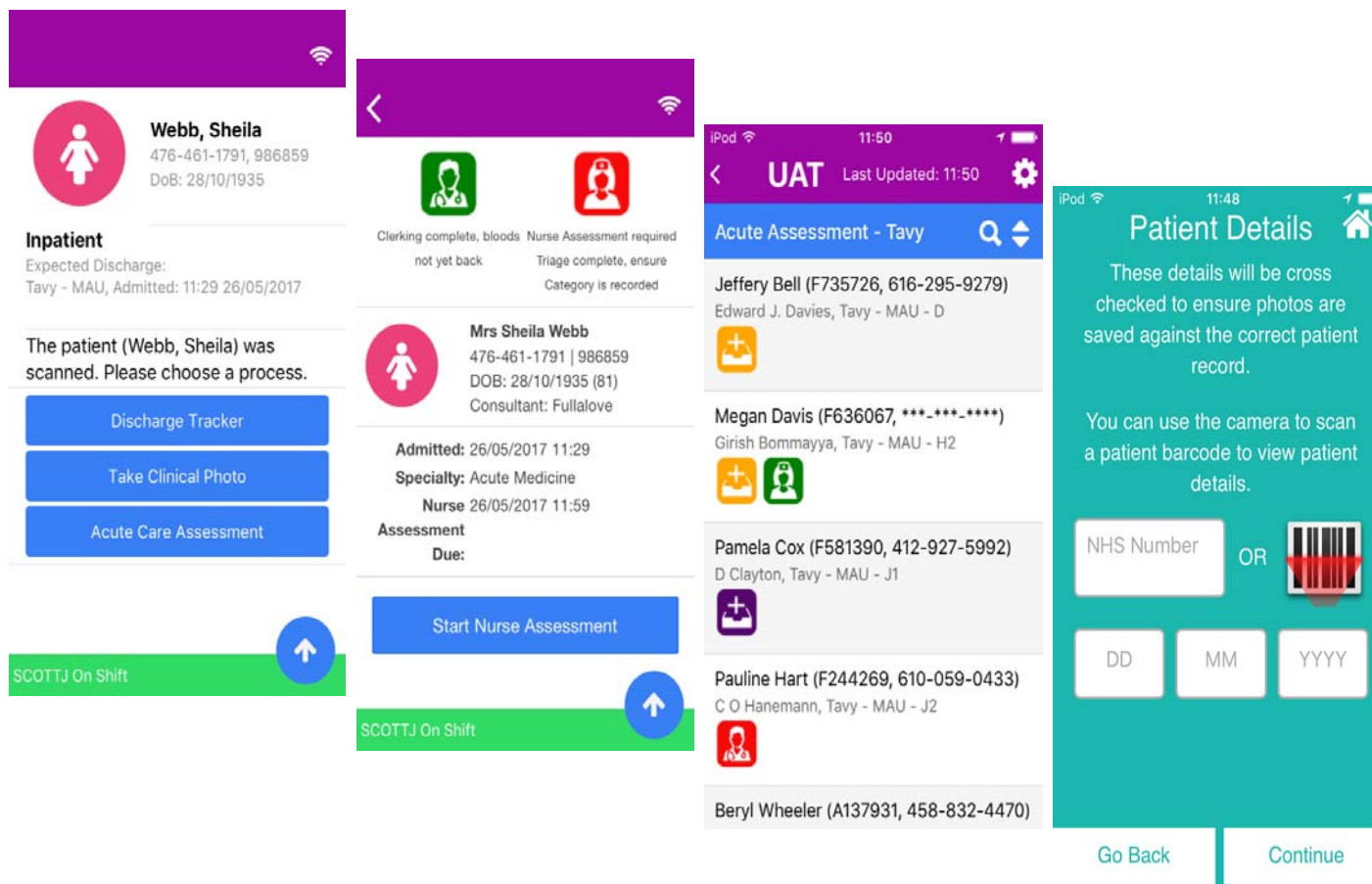
## ... but also driving efficiency

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- Improved user interface
- Less paper
- e-procurement
- e-ordering
- Tracking
- Exciting new mobile apps

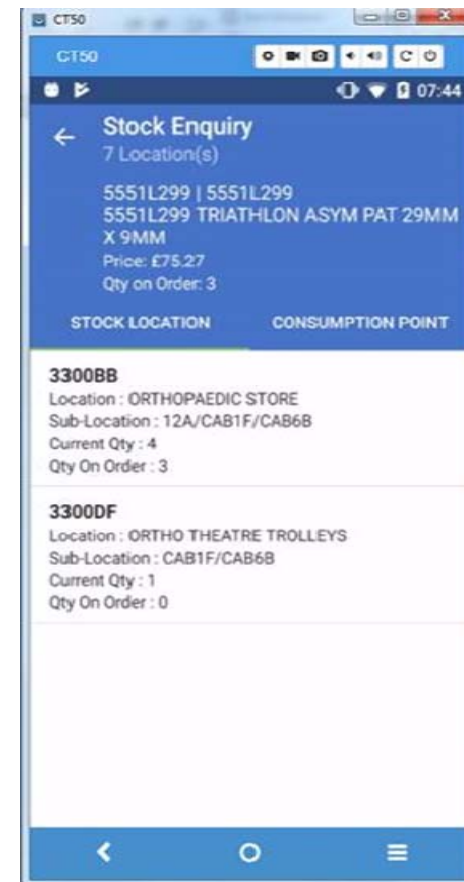


# Mobile Phone Applications



# Control

- Store management
- Stock management
- Catalogue management
- Price management



# Improving our understanding

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- Patterns
- Timing
- Consumption





# It's all about the BEEP ....

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**Every single BEEP tells us a little!**

- Who
- When
- What
- Where

**..... millions of BEEPs tells us a lot!**

# I.N.S.I.G.H.T.

---

**I**ntelligence

**S**ourced

Us**I**ng

**G**s1

**H**ealth

**T**echnology



# Understanding the 'why?'

---

- Plan
- Predict
- Influence
- Change



# Improving performance

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Through better understanding of variation we can:

- Improve safety
- Improve quality
- Reduce cost
- Reduce waste

**... MAKE BETTER DECISIONS**



# The journey ahead ....

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# Most importantly ... these people get it ...

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# Thank you for listening



**@NickNickThomas**

**#nickthomasrocksGS1chicago**



Leading with excellence, caring with compassion





The Global Language of Business

# Healthcare professionals – different viewpoints, one goal

32<sup>nd</sup> Global GS1 Healthcare Conference  
Chicago, US

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## Panel discussion

October 17<sup>th</sup>, 2017





The Global Language of Business

Thank you very much for your attention

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- What has been your biggest challenge that you faced?
- In terms of medicines where do you see the biggest impact ?
- How important is this programme in terms of the NHS being able to benchmark nationally ?