

Scanning barcodes in the Operating Room: Safer procedures, more satisfied personnel. The Greek Army's General Military Hospital

Mr. Sotiris Tsiafos – Tsiaras, Military Pharmacist, OR Traceability Project Manager at 401 Athens General Army Hospital, Greek Army

October 18, 2018



Welcome and thank you for attending!



- Welcome to our GS1 Healthcare October 2018 webinar.
 Thank you to our guest speaker Mr Sotiris Tsiafos-Tsiaras, Military Pharmacist, OR
 Traceability Project Manager at 401 Athens General Army Hospital, Greek Army
- 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



GS1 Healthcare Global and the Healthcare Webinars



Focus is on 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

Identification of projects and case studies

A source of expertise and advice

- 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



Some specific GS1 Healthcare 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_w ebinars

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

GS1 Healthcare also holds two global conferences per year. The next conference will be in Bangkok, Thailand from October 30 – November 1st, 2018.

We expect significant Healthcare Provider participation on the agenda.



Presenting today





Sotiris Tsiafos-Tsiaras

Military Pharmacist, Pharm. BSc, Logistics MSc

OR Traceability Project Manager





401 Athens General Military Hospital





Our Hospital: Facts & Data



- Largest Military Hospital in Greece
- NATO Role 4 Hospital
- 540 beds, up to 1075
- 11 Operating Rooms
- Cardiac Catheterization & Vascular Embolism Laboratory
- Cardiac surgery dept.
- In 2017:
- ~ 15.700 inpatients, 220.000 outpatients
- More than 4.000 surg. operations
- ~ 7.000.000 € annual spend on medical devices





Decision to use GS1 Standards



- Need to:
 - Improve Operating Room supply chain operations
 - Enhance patient safety in the OR

Greek Army's Medical Supplies Centre is using GS1 standards in warehouse operations since 2015 with very good results!





Decision to use GS1 Standards



"How GS1 standards will improve hospital's operations?"

Proof of Concept: A pilot

Where? **Operating Room**

What ? **Expensive items – stock management**

High-risk medical devices, implants

How ? Using **AIDC technologies** and **manufacturer's**

barcodes



A Great Challenge!



- Nurses/Staff knew nothing about barcodes
- Suppliers' limited knowledge of GS1 standards
- Barcode scanning not implemented in hospital's clinical software
- Resistance to change (?)





Initial Assessment - Findings



- Proprietary hospital-only items coding scheme.
- No GTINs stored in the system
- Manual registering of items (Excel item Catalogues)
- No LOT/BATCH or Serial tracking (patient safety!)
- No detailed stock visibility losses due to expiration



Initial Assessment - Findings



Error-prone, time-consuming processes!

Valuable time lost

Traceability ???



Inaccurate stock data

Expired items - losses



Initial Assessment - Findings



Medical Devices used in the OR:

>90% barcoded

85% GS1 (**GS1-128, GS1 Datamatrix**)

5% HIBCC

2% other

Application Identifiers:

(01) GTIN

(17) EXP

(10) LOT

(21) SERIAL





(01)07350053850286(17)150508(10)5487265



Implementation Strategy



Early Stages

DEFINE SCOPE -TARGET

- Which items?
- How many ORs?
- Desired outcomes

INFORM STAKEHOLDERS

- Form a project workgroup
- Explain objectives
- Contact suppliers

EDUCATE PEOPLE

- GS1 Basics
- Barcode benefits
- Hands-on training

BUILD A DEMO (optional)

- "Quick & dirty"
- Show benefits
- Get feedback
- Gain support



Implementation Strategy



Implementation

DECIDE & DESIGN CHANGES

- Systems
- Procedures
- KPIs

APPLY CHANGES

- Continuous monitoring
- Feedback
- Training
- Support

EVALUATE RESULTS

- Measure KPIs
- Operational efficiency
- Patient safety

Planning for the future

FORM A CULTURE

- Everyday job
- Clear benefits
- User friendliness

NEXT STEPS

- More ORs
- Other Depts
- OR Safe Labeling System





SELECTED ITEMS

- Cost & Volume
 - High cost medical devices
 - High turnover items (e.g. surg. Sutures)
- Risk & patient safety
 - Implants
 - Intra-Ocular Lens

SELECTED BARCODES

- GS1 barcodes:
 - EAN, GS1-128, Datamatrix
- No HIBCC
- No other barcodes

Scanning at the "Point Of Sale"





WHERE TO START?

- Start small
- Be simple
 - One operating room
 - Few items
 - Basic training

A "quick" **Demo** first:

- Cataract surgeries
 - Few items used per patient
 - "Fast" procedure (20-25 min.)
 - Need for speed
 - Need for tracking IOL serials





NEXT STAGE

- √ 3 more ORs (General and neuro- surgery)
- ✓ Anesthesia & Recovery Dept.

- ✓ Cardiac Catheterization Lab.
- ✓ Interventional Radiology Dept.

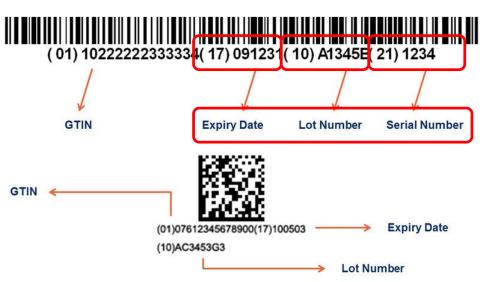






Main types of barcodes used:

GS1-128 and GS1 Datamatrix®



ALWAYS SCAN

capturing crucial item data:

- GTIN
- LOT/BATCH
- (SERIAL)
- EXP DATE



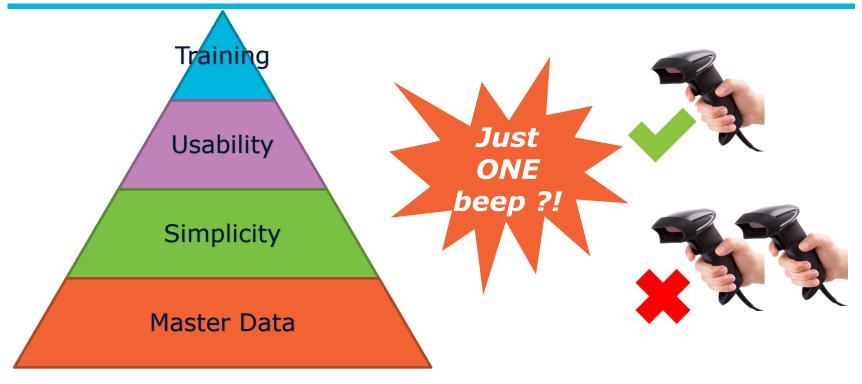






Key Elements

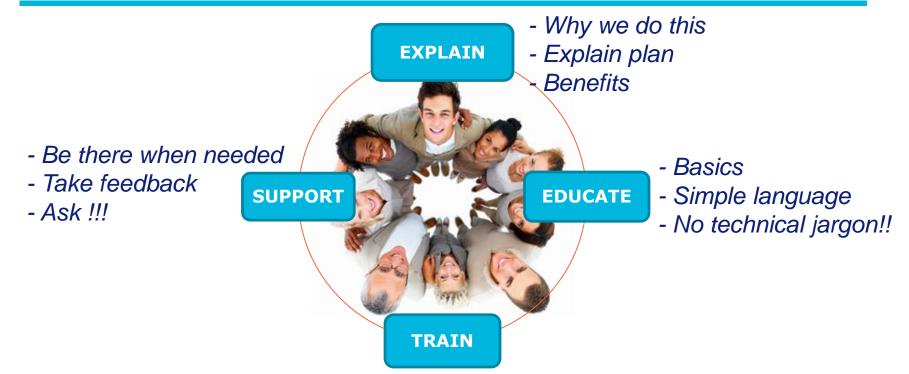






Personnel Engagement







Procurement – Suppliers engagement



- Suppliers engaged at the very beginning
 - Explained project plan and target
 - Asked for item catalogues
 - Shared info and case studies benefits!
 - Directed to local GS1 MO





Procurement – Suppliers engagement



Procurement is our "Right Hand"



- New tender/contract terms (coding labeling)
- Advice on National & European legislation
- Contact suppliers
- Update e-procurement platform





IT Systems & Software



- No GS1 AI decoding
- No uniform barcodes various AIs
- "Item of supply" vs "Item of trade"



- Own software, in-house development
 - GS1 only barcodes
 - At least GTIN (01) LOT/BATCH (10) SERIAL (21) EXP DATE (17) decoding capabilities (BUT NOT ENOUGH!)
- GS1 General Specifications as a guide
- "One-to-many" relationship between hospital's codes GTINs



IT Systems & Software





Design Principles







IT Systems & Software



focus on the user

Engagement of the IT department is crucial, but...

don't let them have the last word.





Accurate data

Patient What was used on safety! which patient

- Exp dates!
- Implants tracking
- Stock accuracy –visibility

Efficien Better forecasting

- Fewer losses

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ΕΠΩΝΥΜΙΑ: ΑΡΊΘΜΟΣ ΠΡΟ-ΠΑΡΑΓΓΕΛΊΑΣ:		ΕΙΔΟΣ ΠΑΡΑΣΤΑΤΙΚΟΥ: ΔΕΛΤΙΟ ΔΙΑΘΕΣΗΣ ΣΕ ΑΣΘΕΝΗ ΑΡΙΘΜΟΣ ΠΑΡΑΣΤΑΤΙΚΟΥ: 569					
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00643169708327	ΗΛΕΚΤΡΟΔΙΟ ΕΝΕΡΓΗΤΙΚΗΣ ΠΡΟΣΦΥΣΗΣ Ref No: 407658	TEM		BBL125675G	7/3/2019	-	
00643169723986	ENSURA DR MRI SURESCAN EN1DR01 Ref No: EN1DR01	TEM	PZW057542G			-	
00681490143011	ΥΠΟΚΛΕΙΔΙΟΣ ΕΙΣΑΓΩΓΕΑΣ Ref No: 6207-S1	TEM	W4084730		20/12/2019	-	
00681490143349	ΥΠΟΚΛΕΙΔΙΟΣ ΕΙΣΑΓΩΓΕΑΣ Ref No: 6209-S1	TEM	W3983733		23/10/2019	-	
05414734028295	ΟΔΗΓΟ ΣΥΡΜΑ ΣΤΕΦΑΝΙΟΓΡΑΦΙΑΣ, ΥΔΡΟΦΙΛΟ, 150/035 ' Ref No: 408005	TEM	9915797		31/3/2021	-:	
8680081311817	ΠΕΔΙΟ ΒΗΜΑΤΟΔΟΤΗ 200 X 360CM 3PLY Ref No: FST82003T	TEM				-:	
8680081316676	ΔΙΑΦΑΝΈΣ ΚΑΛΎΜΜΑ ΟΡΓΑΝΏΝ 80CM ΚΎΛΙΝΔΡΙΚΌ Ref No: FST9511	TEM				-2	
				ΣΥΝΟΛΟ ΤΕΜΑΧΙΩΝ:		-9	





Speed

- Fast & correct registration of items in the OR →
 - More time with the patient
 - Less paperwork afterwards
- Fast & correct stock counting →
 - Less time spend in administrative tasks
- Significant time gains at the invoicing procedure!





Speed

>80% less time needed for stock counting

>85% less time needed for registering anesthesia sets to patient records

(almost 19 hours/month!)

Procurements Officer:

"Is like having one more person in the office!"





Safety

- For our **patients**
- For our **nurses**



Cardiac Catheterization Lab Head Nurse:

"I feel safe knowing I have full control over my stock"





Change of Culture!









Our Vascular Embolism Lab Team

Happier people!

- Barcodes are great, but our <u>people is the key</u>
- GS1 standards made their life easier
- Happier staff means better care for our patients!



One last word







One last word



Don't hesitate, just do it!









Thank you!

Sotiris Tsiafos-Tsiaras, OR Traceability Project Manager

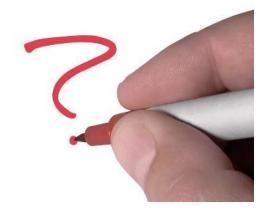
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GS1 Healthcare webinar: Questions and contact details





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