Product identification supporting full traceability in the global healthcare supply chain

Webinar International Hospital Federation

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Agenda

Webinar: Product identification supporting full traceability in the global healthcare supply chain

- Rethinking processes accelerated due to COVID-19
- Healthcare supply chain needs global standards
- Trust .......... & Traceability
- GS1 organisation
- GS1 global system of standards
- Example
- Clinical Patient Pathway
- Questions
The global pandemic urges to rethink…..

- The present pandemic leading to the COVID-19 disease:
  - Disrupts lives and brings suffering and fatalities
  - Burdens healthcare workers
  - Stretches healthcare systems to (and beyond) their limits

- Shows the importance of a safe healthcare supply chain and of product identification:
  - To support safe patient care
  - To protect healthcare workers
  - To know where supplies come from, where they are and for whom designated
  - To continue to fight substandard supplies and save money for healthcare
The healthcare supply chain needs global standards

- Medication errors result in additional treatments, disabilities and even loss of life
- Manual registration in the healthcare supply chain decrease its efficiency and accuracy
- Traceability from manufacturer to patient is problematic
  - Product recalls can be difficult to manage, in particular for healthcare providers
- Substandard and falsified products are an increasing global threat
  - Lack of safe PPE’s during Covid-19
Results

Reliable and safe supply of drugs to patients

Enhanced ability to combat illicit drug sales, barcode scams and theft

More than $1 billion in annual savings

Challenge
To ensure and guarantee the reliable supply of legitimate drugs to patients in Turkey. Like most countries, this supply was put at risk by illegal activities that could seriously impact public health and safety.

Approach
Turkey developed a Pharmaceutical Track and Trace System and built a centralised repository to monitor drug movement throughout the supply chain. With this central management system in place, the ITS can track and trace a drug from the point of manufacture to the point of dispense by leveraging GS1 identification keys, attributes and barcodes.

Turkish Pharmaceutical Track and Trace System (ITS)
ITS was the first successful application of a “Pharmaceutical Track and Trace System” in the world and is designed to track the location of every drug unit to ensure the reliable supply of drugs to patients.

Response time is 0.02 seconds per transaction

More than 45 million daily transactions through ITS

Sophisticated and efficient recall management
Trust begins with understanding and visibility

Correct type and size?

Who is the manufacturer of this product?

Ensuring use of safe products

Interoperability / traceability
Unique Identification with GS1 Standards

Medications, Instruments/Devices, Assets, Patients, Medical Staff, Locations

GS1 Traceability Standard
GS1 in a nutshell

We are best known for the barcode
GS1 works world wide across industries

- 1 million companies worldwide use GS1 standards
- 150 countries
- 25 industries served across 150 countries
- 6 billion times per day globally
- 114 GS1 Member Organisations around the world

Barcodes scanned more than 6 billion times per day globally.
GS1: global system of standards

Identify GS1 Standards for Identification

Capture GS1 Standards for Barcodes & EPC/RFD

Share: GS1 Standards for Data Exchange

Interoperability
GTIN – Global Trade Item Number...

GTIN

Used on any item upon which there is a need to retrieve pre-defined information that may be priced, ordered, or invoiced at any point in any supply chain

Internationally agreed

EAN13 when only article number is needed

GS1 128 when enough space is available on the package:

Preference for GS1 DataMatrix:

(01)1022222233334(17)091231(10)A1345B(21)1234

(01)1022222233334(17)091231(10)A1345B(21)1234
Global trend: GLOBAL unique product identification with four data attributes

- Product Identifier (GTIN)
- Serial Number
- Expiry date
- Lot/Batch number
Unique Identification with GS1 Standards

GS1 has Global Keys and technical support services to uniquely and unequivocally identify, such as:

- **GTIN**
  - GS1 Global Trade Item Number
  - Identify a product

- **GSRN**
  - GS1 Global Service Relation Number
  - Patient identification for better safety
  - Care provider identification for better safety

- **SSCC**
  - GS1 Serail Shipping Container Code
  - Identify a logistics unit

- **GLN**
  - GS1 Global Location Number
  - Physical locations (Hospitals, clinics, etc.)

- **GIAI**
  - GS1 Global Individual Asset Identifier
  - Healthcare assets (clinical respirators, etc.)
GS1 links the dots of the (healthcare) supply chain with global and open standards.
Example: Surgical Gloves

Primary Package

Surgical Gloves Size 7 PBM

Identification

GTIN-13: 7802233000665
Expiration Date: 21-05-01
Serial No: 444555
Lot/Batch No: DFG345

Symbology

GS1 Symbology: EAN-13

GS1 Symbology: GS1 DataMatrix

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Example: Surgical Gloves

Product hierarchy

Primary package
GTIN Global Trade Item Number

Secondary package
GTIN Global Trade Item Number

Case
GTIN Global Trade Item Number

Logistic Unit
SSCC Serial Shipping Container Code
Clinical Patient Pathway,
demonstrating the individual touch points throughout the clinical patient journey where GS1 standards are used.

Standards adoption provides end-to-end traceability, improving patient safety and operational efficiency.

The clinical patient pathway

These are six steps of the clinical patient pathway. The visual shows that the supply chain is connected to patient care.

Clinical & Non-clinical

The clinical and non-clinical supply chain are connected or shared.

Shared product & data flow

This loop represents the shared product & data flow of clinical (upper part) and non-clinical (lower part) actors and activities.

Regulatory authorities

Regulatory authorities influence and steer both clinical and non-clinical actions and activities.
Clinical Patient Pathway

Benefits
- Helps improve patient safety
- Product traceability
- Allows facilitation of discussion on reducing clinical variation
- Supports direct uploading of data to implant registry
- Just-in-time delivery
- Less expired products
- Links supply chain and clinical information to improve processes
- Stock reduction
- Facilitates specimen traceability
- Enhanced recall procedures
- Cooperation creates market-stakeholder engagement

Investments
- Implementation costs for hardware
- Systems being able to cover capturing and storing GS1 identifiers and data
- Training

- To be compliant with regulation
- Product development costs
Clinical Patient Pathway

In partnership with

Non-clinical regulatory/supply chain

Clinical
- Regulatory authorities

Registries - Reporting, Insights

GS1 Standards are device and system agnostic

Global Service Relation Number to identify a service provider and patient

Global Location Number to uniquely identify a location

Global Trade Number to uniquely identify a product

Global Individual Asset Identifier to uniquely identify and manage an asset

GS1 Standards are device and system agnostic

Outpatient Clinic  Admission  Operating room  Prescribing  Ward  Discharge

GS1 Standards

Clinical • Pharmaceuticals • Inventory/Asset Management • Medical Consumables/Devices • Pharmaceuticals

• Admission • Operating room • Prescribing • Ward • Discharge

GS1 Standards

Management information and error prevention

• Admissions • Outpatient • Operating room • Prescribing • Ward • Discharge

GS1 Standards

In partnership with
Traceability from manufacturing to patient

Regulators (for instance FDA, EU, China, countries Asia, Latin America) require global standards and use
Summary use of GS1 identifiers in hospitals

- **On supply chain side**
  - Make full use of identifiers already placed on the products
  - Efficiency (reduce stock) & support just-in-time delivery
  - Support professionalising procurement
  - Track & trace all (medical) supplies

- **On patient side**
  - Facilitate point-of-care scanning (bedside scanning, devices in Theatre)
  - Support patient safety
  - Facilitate uploading to Implant Registries

- **Overall**
  - Investments followed by ‘return on investments’
  - Support agility of the organisation
NEVER...

...has a GLOBAL secure and efficient supply chain been more important than today!
The Healthcare supply chain is global

GS1 standards support healthcare supply chains, connecting supplies to clinical outcomes and to patients

The COVID-19 pandemic shows healthcare staff need optimised processes for a better and safer future

Let’s work together to improve patient safety – with a simple scan!
Contact Details

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Thank you for listening