



The Global Language of Business

Ask the Experts: Understanding barcode quality & its need

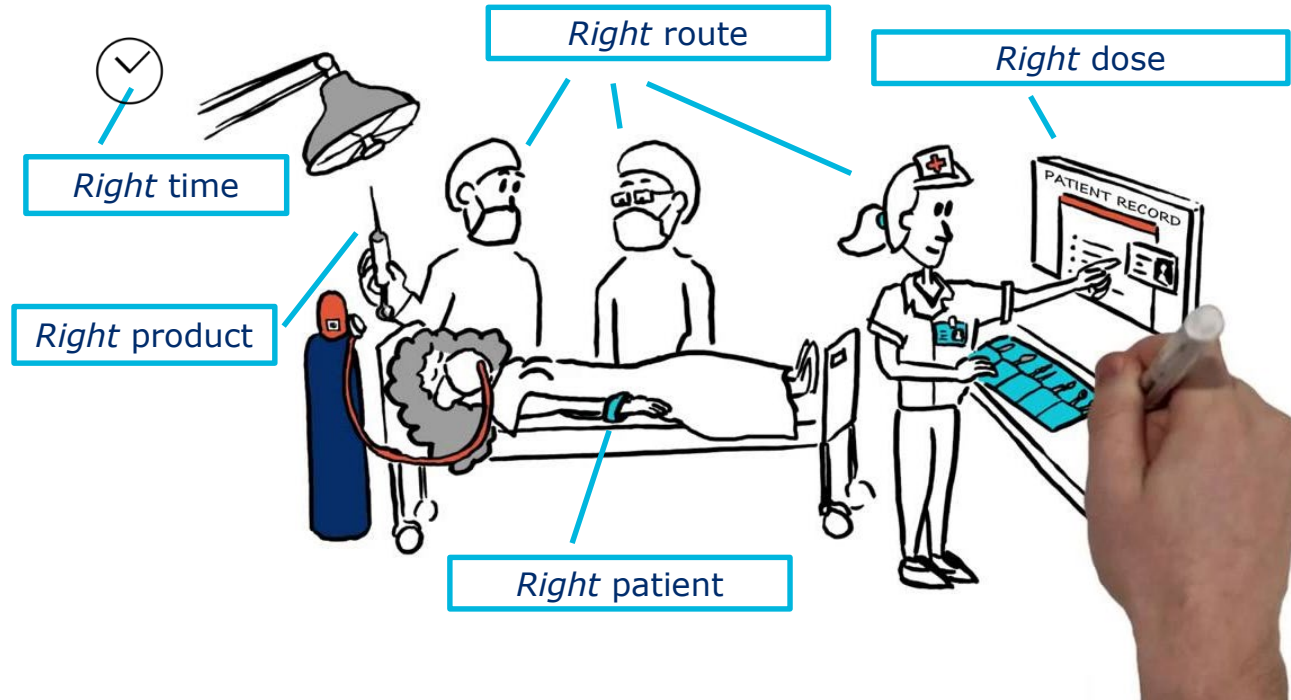
Catherine Koetz

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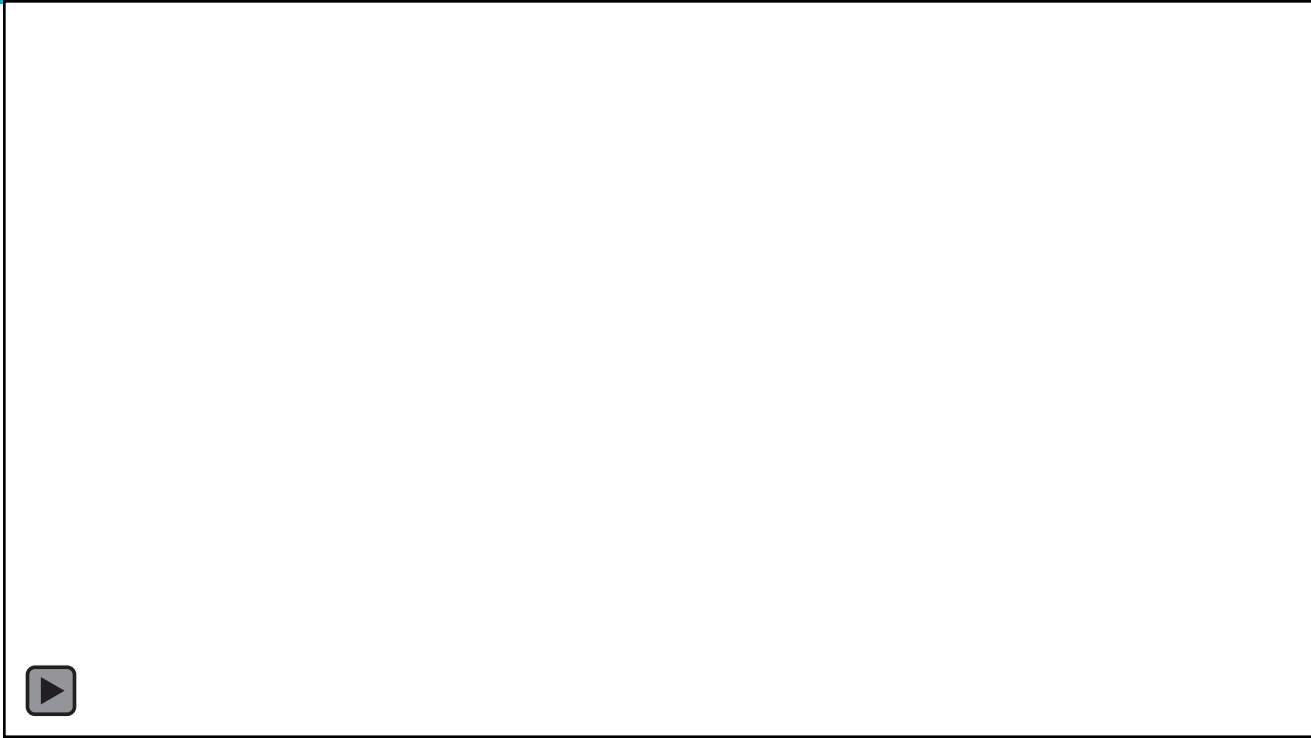
31st October 2018



GS1: system of standards to ensure visibility



What is we do not get it right?



Barcodes = Enabling data capture



Capture: GS1 Standards for Barcodes & EPC/RFID

GS1 Barcodes

EAN/UPC



9 501101 021037

GS1-128



(00) 3 9501100 00001001 9

ITF-14



09501101021037

GS1 DataBar



(01) 0 9501101 02103 7

GS1 DataMatrix



GS1 QR Code



GS1 Composite Barcode



95011026

GS1 EPC/RFID

EPC HF Gen 2



EPC UHF Gen 2



Why is barcode quality important?



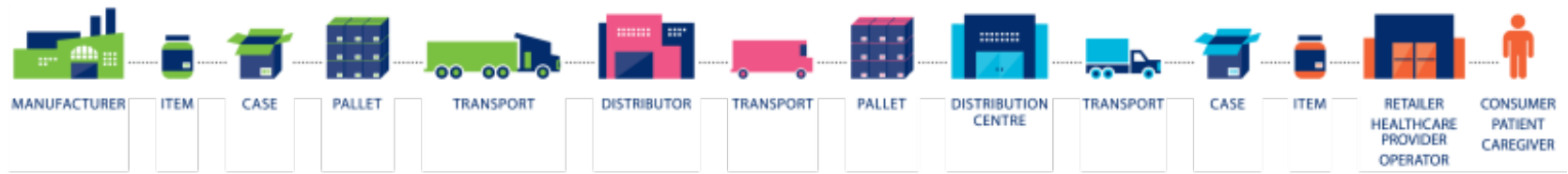
Healthcare is becoming more digital – & quickly!

We are using data capture technology at all points in the care process

- The reliance on technology to help us manage clinical processes means we need accuracy, consistency & trust in how the data is captured
- Patients and healthcare consumers are demanding the ability to manage (some of) their own health activities

Traceability & visibility are the new black (or is it orange?)

- Improvements to global & local Supply Chains operations to ensure security and continues increased efficiency are a must for manufacturers
- Regulations are demanding we improve visibility



Benefits of barcode quality & scanning accuracy



Manufacturer

Ensures accuracy of inventory, meets trading partner requirements

Distributor

Supports efficient operations of automated warehousing, better management of inventory (FIFO, Expiry etc..)

Retailer (Pharmacy)

Ensures accuracy in dispensing process and at point-of-sale (POS)

Clinicians

Can account for products used within patient procedures, removes manual documentation of products used and reduces errors

Clinical support (Finance)

Accurate cost of care and reimbursement

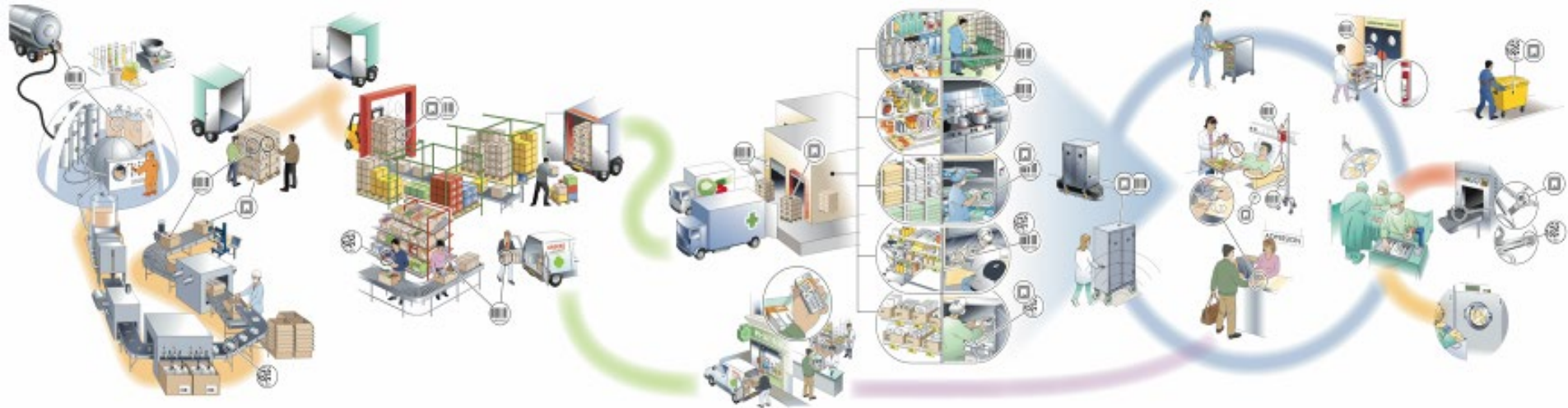
Consumer/Patient

Can scan during their own care (such as medications at home), safer, more accurate records

How do we get it right?



Who & where is going to scan? Look at the whole chain



How do we get it right?



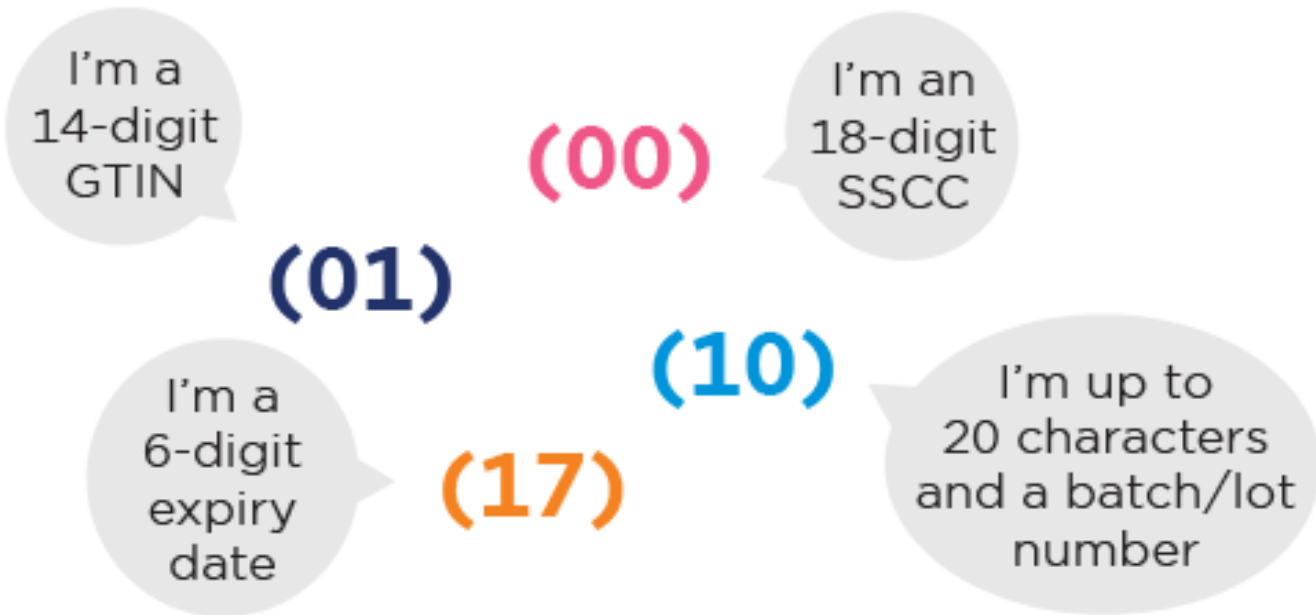
Choosing the format & (keep) checking it is right



How do we get it right?



What data elements?



How do we get it right?



Don't forget the basics?

! Importance of FNC1 (Function 1)

- ensure GS1-128/GS1 DataMatrix barcode's data elements are encoded correctly; FNC1 is used to parse each variable length data elements e.g. Batch/Lot; Serial - [link](#)

! Ensuring Application Identifier (AI) data is encoded correctly in barcode, per AI standard e.g. YYMMDD for Expiry, not DDMMYY

- incorrect data may bring the product's expiry or manufacturing date into question, and mean the products' characteristics can not be scanned into pharmacy or hospital systems

! Barcode scan not reflecting GTIN under barcode



9312345531349

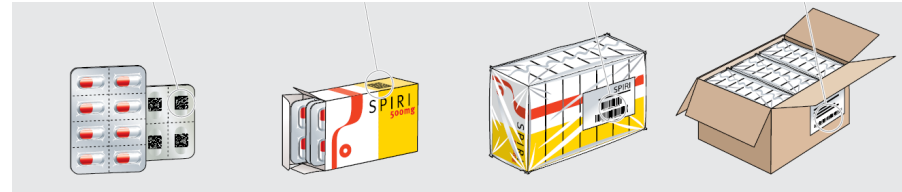
How do we get it right?



Don't forget the basics?

- ! Ensure GS1 barcodes are used - GS1 barcodes enable systems to interpret the barcodes & the data in a consistent & standardised way
 - e.g. ECC200 DataMatrix v **GS1 DataMatrix**
 - e.g. Code 128 v **GS1-128**

- ! Barcode according to GTIN Allocation rules



- ! Incorrect Check Digit



0931234500000
0931234500004

How do we get it right?



- Talk to your local GS1 Member organisation for advice & assistance
 - Talk to their experts
 - Attend training they provide (in person or online)
 - Consider using their barcode quality services for support if you need to
- Refer to the GS1 General Specifications for technical details
- Healthcare specific reference documents
 - Healthcare GTIN Allocation Rules
 - Healthcare AIDC Guidelines
 - Solution provider resources

Simple tips to get it right, every time



- ✓ Ensure **correct symbol** used for the product, application and scanning environment
- ✓ Don't forget the FNC1 characters to identify the barcode type and ensure data fields are clearly defined
- ✓ Check the barcode will remain readable in the **environments** in which the product will be stored, handled and distributed
- ✓ Ensure the **check digit** is correct
- ✓ Check the size of the barcode – **bar height** (linear) or **module size** (2D)
- ✓ Ensure there are adequate **Quiet Zones**, and any optional Quiet Zone Indicators are correctly placed
- ✓ Ensure there is adequate **contrast** between the bars and the background
- ✓ That the chosen barcode **colour** will scan, making sure the colour of the contents of the packaging will not unduly affect the **contrast** between the bars and spaces
- ✓ Check the **position** of the symbol on the final, formed product
- ✓ Ensure that shrink-wrap, tape or other printing will **not obscure** the barcode on the finished product
- ✓ Carry out **routine verification** at all levels of packaging to ensure that the barcode complies with the required quality standard, and to identify any potential problems
- ✓ Check the **print quality regularly** throughout the print run by verifying the barcode quality
- ✓ Notify partners of changes to products **GTINs** & master data (new, changes) via a quality process

Thanks for listening...

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Enjoy the rest of the conference!

