Ask the Experts: Understanding barcode quality & its need

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GS1: system of standards to ensure visibility

Right product

Right time

Right patient

Right route

Right dose
What is we do not get it right?
Barcodes = Enabling data capture
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?

I’m a 14-digit GTIN

I’m an 18-digit SSCC

I’m a 6-digit expiry date

I’m up to 20 characters and a batch/lot number
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
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

- 09312345000000
- 09312345000004
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!