General Specifications Change Notification (GSCN)

WR #	GSCN Name	Effective Date
23-060	Multiple barcodes management practices GTIN & Attributes rule	Jul 2023

1 **Associated Work Request (WR) Number:**

WR-21-001 (Future State ASP request), WR-22-031 (ASP future state conformance requirements), WR-22-172 (section 8 optimisation), WR-22-327 (HRI), WR-22-376 (Multiple Barcodes)

2 **Background:**

Phase 2 of the 2D in Retail work addresses the changes required for cross-application standards and rules to be used during both the transition period and the future state of 2D barcodes at retail point-of-sale (POS), which were defined during phase 1. The second set of cross application rules to be updated is the section on multiple barcode management practices for trade items scanned in general retail.

3

4 **Disclaimer:**

Figure 4.14.3-1. Short forms by date type

Date type	Short form
Production	PROD
Packaging	PACK
Best Before	BEST
Expiration	EXP

AIDC techniques are suggested over any manual process to ensure accurate and timely stock rotation. Every effort should be made to adopt an automated process to increase productivity and date management.

4.15 Multiple barcode management practices for trade items (cross-sector)

When additional barcodes are introduced into an existing scanning environment or business application, all application standard conformant ~~existing~~ barcodes ~~must~~ SHALL remain ~~acceptable~~as choices. This section provides a set of management practices intended to permit the use of multiple barcodes on the same ~~package~~trade item.

✓ ~~**Note:** Additional barcodes encoded with GTIN and GTIN attributes such as lot number, serial number or expiry date are also stored in the respective master data records.~~

4.15.1 Multiple barcode management practices for trade items (all sectors)

1. **Current standards:** All scanning systems SHALL deploy symbology identifiers (see section 5.1.3) and when using GS1 Application Identifiers, process them according to GS1 rules (see section 7.8).

2. **Use of GTIN:** All GS1 data carriers on a single trade item SHALL encode the same GTIN.

3. **Use of GTIN attributes:** When the GTIN and GTIN attributes occur in multiple data carriers on a single trade item, the attribute values SHALL be the same.

~~2.~~4. **GTIN plus attribute(s) flag:** Whe~~nre~~ applications require GTIN plus additional data to be captured in a multiple barcode ~~symbol~~ environment, modifications to systems ~~should~~ SHOULD be made to automate this requirement ~~to optimise efficiency~~.

5. **Adjacent placement:** ~~Wherever~~ When two ~~symbols~~ barcodes can be used for the same application (i.e., point-of-sale, point of care, ~~POS, POC,~~ general distribution) they SHOULD be placed adjacent to each ~~one an~~other while maintaining their ~~. Adjacent placement of symbols SHALL never infringe on symbol~~ Quiet Zones. The orientation (stack or row of ~~symbols~~barcodes) or sequence (which ~~symbol~~ barcode is placed on the left, right, top, or bottom) ~~shall~~ SHALL be determined by the brand owner.

   a. ~~-~~Whe~~nre~~ adjacent placement on one ~~panel~~ surface of an object is not possible, the barcodes SHOULD be placed on an adjoining surface of the object. ~~is not permitted based on space limitations, placement on adjacent panels SHOULD be attempted.~~ This practice does not supersede any section 6 ~~symbol~~ barcode placement rule (e.g.~~,~~: 8 mm (0.3 inch) free space between ~~symbols~~barcodes and panel edge~~.~~).

~~3.~~6. **Non-adjacent placement:** ~~Wherever~~ When two ~~symbols~~ barcodes are used for different applications (e.g., point-of-sale, ~~POS, B2C~~extended packaging), they SHOULD be placed non-adjacent to one another.

~~4.~~7. **Obscure placement:** ~~Wherever~~ When a ~~symbol~~ barcode is used for production control purposes only (e.g., Data Matrix encoded with a non-GS1 syntax to match label to product), it SHOULD be made as obscure as possible or even obstructed on the trade item package.

~~5. Product URL barcode indication: For barcodes encoding AI (01) (8200) see section 4.14 Human readable interpretation rules, rule 12.)~~

8. **Use of GS1-128 or GS1 2D ~~symbol~~ barcode as supplemental ~~symbol~~ barcode with EAN/UPC or ITF-14 as the main ~~symbol~~barcode:**~~.~~ In general retail and general distribution, where EAN/UPC or ITF-14 is used to encode the GTIN and where a GS1-128 or GS1 2D ~~symbol~~

barcode is used to encode GTIN attributes, the same GTIN SHALL be encoded in all GS1 ~~symbols~~barcodes.

~~6.~~9.**GS1-128 as supplemental barcode:** When an EAN/UPC or ITF-14 is used to encode GTIN and where GS1-128 is used to encode GTIN attributes, GS1-128 SHOULD encode GTIN and the GTIN attributes in a single barcode to ensure accurate data association.

~~7.~~10. **Use of GS1 2D ~~symbol~~ barcode as supplemental ~~symbol~~ barcode with GS1-128 as main ~~symbol~~barcode:** In general distribution, where GS1-128 is used to encode GTIN and attributes, these element strings at a minimum SHALL be encoded in the supplemental GS1 2D ~~symbol~~barcode.

4.15.2 GS1 multiple barcode management practice for general retail

In addition to the requirements outlined in section 4.15.1, the following rule~~s~~ ~~applies~~ apply to the use of multiple barcodes for general retail.

1. ~~**Use of GTIN**: All GS1 barcodes on a single trade item SHALL encode the same GTIN.~~

2. ~~**Use of GTIN attributes**: When the GTIN and GTIN attributes occur in multiple barcodes on a single trade item, the attribute values SHALL be the same.~~

1. **Migration to 2D barcodes:** A GS1 DataMatrix, QR Code (GS1 Digital Link URI) or Data Matrix (GS1 Digital Link URI), SHALL be used in addition to the EAN/UPC, or a GS1 DataBar retail POS family of barcodes, to ensure stakeholders that are not yet able to consistently scan 2D barcodes are not negatively impacted. Application Standard Profiles in section 8 provide information on conformance requirements for the transition period and future use of 2D barcodes at retail POS.

> **Commented [DM19]:** WR22-376 Multi barcode mgt

When there is more than one barcode with GTIN on trade items, it is essential that the POS systems will ensure:

- The system SHALL only process one set of the desired data in the final transaction.
- Scanning systems SHOULD only produce one acknowledgement (e.g., beep) when multiple barcodes are scanned from the same trade item.

> ⚠ **Important:** If the points above are not implemented, unintended POS transactions may occur.

> **Commented [DM20]:** WR23-056 Symbol Placement GSCN

2. **Placement when using a 2D barcode for multiple applications:** When a 2D barcode will be scanned in multiple applications (e.g., point-of-sale, inventory management and consumer engagement), placement for POS takes precedence. The same adjacent placement rules as stated in section 4.15~~6~~.1 are applicable.

> **Commented [DM21]:** WR22-376 Multi barcode mgt

> ✅ **Note:** Where GS1 DataBar and 2D barcodes are used, GTIN and GTIN attributes SHALL be encoded in a single barcode to ensure accurate data association

~~**GTIN in GS1 DataBar processing:** In order to facilitate migration away from a multiple barcode environment where one retailer requires EAN/UPC and another GS1 DataBar Expanded, at a minimum, all general retailers SHALL be able to process the AI (01) GTIN from GS1 DataBar Expanded.~~

> **Commented [DM22]:** WR22-376 Multi barcode mgt

4.15.3 GS1 multiple barcode management practices for healthcare

In addition to the requirements outlined in section 4.15.1, the following rules apply to the use of multiple barcodes for healthcare.

1. **GTIN in GS1 DataMatrix and GS1 DataBar processing (retail healthcare):** In order to facilitate migration away from a multiple barcode environment where one retail pharmacy requires EAN/UPC and another retail pharmacy requires GS1 DataMatrix or GS1 DataBar