

[REDACTED]		[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

4.14. Human Readable Interpretation (HRI) Rules

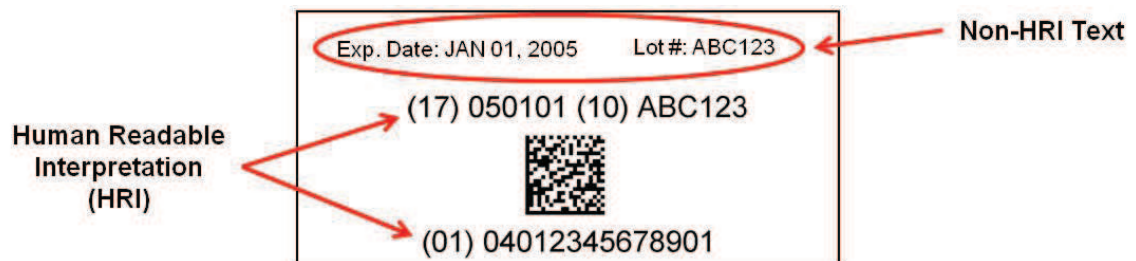
Human Readable Interpretation rules are provided to standardize requirements for brand owners and users to facilitate common training for operators who encounter GS1 AIDC data carriers that fail to scan or read. There are two categories of rules:

- General Rules that apply independent of sector, product category, or region
- Sector Specific Rules which must be aligned with the General Rules


For the purposes of interpreting this standard, there are two types of text that appear on a label, package, or item; Human-Readable Interpretation (HRI) and Non-HRI Text.

- Human Readable Interpretation (HRI) is the information below or beside a barcode or tag which is encoded in the barcode or tag and represents the same characters as carried in the barcode or tag (See Section 8 Glossary for full definition).
- Non-HRI Text is all other text on package, label or item (See Section 8 Glossary for full definition).

Figure 4.14-1. Example of HRI and Non-HRI Text



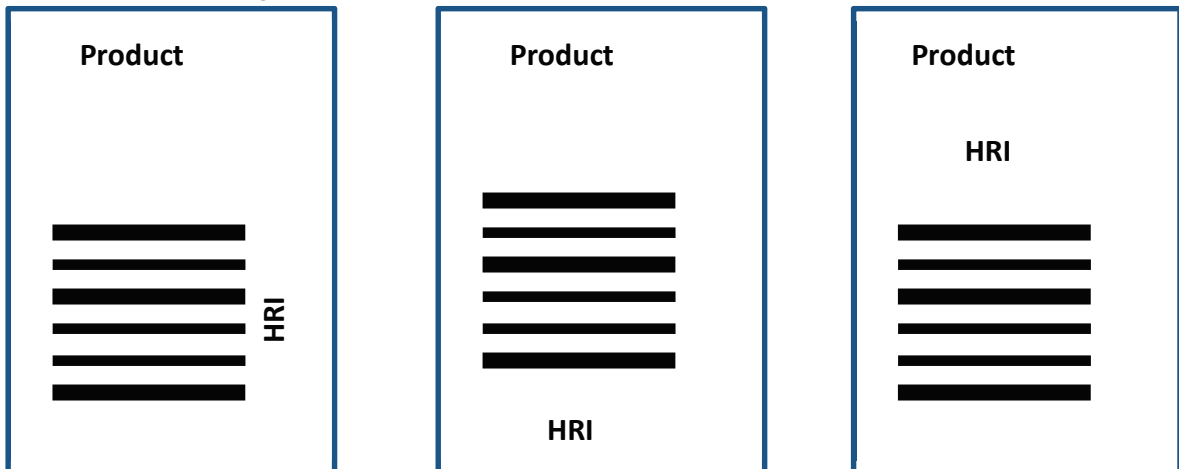
- **Note:** The following rules are intended for global use. Exceptions may occur only when local regulatory or legal requirements mandate otherwise


-  **Note:** At present, HRI rules are applicable to barcodes as rules for EPCglobal RFID tags are under development.

Human Readable Interpretation Rules

1. Whether a GS1 AIDC Data Carrier encodes a GS1 Identification Key, GS1 Key Attributes, or a combination of both, the HRI should be placed below the barcode and grouped together wherever physically possible while maintaining the HRI legibility and minimum barcode height (as specified in the appropriate Symbol Specification Table referenced by the GS1 AIDC Application Standard).
 - a. In cases where the HRI must be printed above, to the left, or to the right of the symbol due to packaging or space constraints, HRI shall always be printed adjacent to (obviously associated with) the GS1 AIDC data carrier while protecting quiet zones.
 - b. If the HRI for GS1 Identification Keys and GS1 Key Attributes is split (for example GS1 Key HRI is below the barcode and GS1 Key attributes HRI is above the barcode), the preference for GS1 Key HRI placement is always below the barcode.
 - c. When HRI is grouped together (for example, all HRI data is grouped below the barcode or all HRI data is grouped above the barcode), HRI shall always follow the encoding sequencing of the GS1 AIDC data carrier.
2. A single data element shall not be broken into two lines of HRI, for example the data for a serial number would appear on one line of HRI.
3. Parentheses shall surround AIs in HRI but are not encoded in the GS1 AIDC data carrier.
4. A clearly legible font shall be used (e.g., OCR-B as defined in *ISO 1073-2*) and the character set as defined in Section 7.11. Reasonable alternative type fonts and character sizes are acceptable provided the interpretation is clearly legible.
5. HRI shall be limited to element strings and will not include GS1 AIDC data carrier overhead such as FNC1 characters.
6. If the required barcode and associated HRI is marked directly on the part, then both satisfy the requirements for Healthcare Primary Package marking (see Section 2.1.2.3) if the barcode can be scanned and the HRI is legible through a panel in the primary packaging.
7. HRI shall appear except in rare circumstances for specific applications where there are extreme space constraints (e.g., direct part marking). If the GS1 AIDC data carrier cannot be read or scanned and the HRI does not appear on the label, package, or item, non-HRI text should be used as backup information.
8. If the barcode is printed in ladder orientation on the product, the HRI should remain clearly associated with the barcode and may appear below, to the left, or to the right of the symbol respecting quiet zones. See Figure 4.14 - 1 below.

Figure 4.14-2. Locations of HRI for barcode in ladder orientation



 **Note:** There may be local variants for non-HRI text on the label (e.g., dates, prices) which are formatted based on local practice rather than the way the data is encoded in GS1 AIDC data carriers. In this case, the HRI associated with AIDC shall still be expressed as it is encoded in the GS1 AIDC data carrier encoding (per Application Identifier definition).

9. When AI (8200) appears on the label, the expression of the URL shall not appear in HRI. If it appears in Non-HRI text, it shall be expressed as <http://brandownerassignedURL.com/GTIN> (where GTIN expressed as 14 digits).

4.14.1. Healthcare Human Readable Interpretation Rules

The GS1 System requires printing both the GS1 AIDC data carrier and the HRI that represents all the information encoded within that GS1 AIDC data carrier.

If the GS1 AIDC data carrier cannot be read or scanned, the HRI should be used as back up information. The GS1 preferred format for HRI when applied on healthcare trade items shall be as noted in the general HRI rules found in Section 4.14.

When considering the practical implementation and application of HRI during the creation of the product packaging, many factors must be taken into account to determine if and how HRI is included with the symbol. These factors may include the type of product being labelled or marked, product use, available space for marking, alternate data availability, regulatory or legal requirements, technical constraints, etc.

However, printing both the GS1 AIDC data carrier and the associated HRI may not be possible due to many factors such as the intended use of the item, available space for marking, etc. Deviation from the HRI format should be minimised and consider impacts to downstream trading partners and users

Typical examples are shown in Figure 4.14.1-1

Figure 4.14.1-1. Preferred HRI Format Examples



If a deviation from the preferred format is required that results in HRI not being printed, then a combination of HRI and Non-HRI Text may be used. When doing so, the following rules apply:

- If the data represented in the Non-HRI Text is exactly as in the HRI, then the appropriate AI shall be printed along with the data title. See figure 4.14.1-2.
- If data represented in the Non-HRI Text does not match the HRI, then only a data title may be used. The AI shall not be printed. This is illustrated in figure 4.14.1-3 by the GTIN and Expiry.
- The selection of data titles may be determined by the manufacturer based on regulatory, local language requirements, relevant standards (e.g. ISO/IEC 15223) or appropriate abbreviations.

Figure 4.14.1-2. Combination of HRI with AIs, Non-HRI Text and data titles



Figure 4.14.1-3. Combination of HRI with AIs, Non-HRI Text (GTIN and Expiry) and data titles



If it is not possible to print both the GS1 AIDC data carrier and the HRI, Figure 4.14.1 – 4 should be used to determine how HRI will be implemented. When it is not possible to print all of the HRI, preference for printing shall be given to the GS1 Key.

Figure 4.14.1-4. Healthcare Human Readable Interpretation (HRI) Decision Tree

