Global Standards Implementation Toolkit for Healthcare Providers

Medical Device Category

September 2020
1 Document Summary

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1.1 Log of Changes

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1.2 Document Purpose

Healthcare organizations globally are combining logistical and purchasing operations with clinical elements that result in better patient outcomes, reduced total cost of care, and improved patient outcome analytics. This movement to a clinically integrated supply chain relies on a solid foundation of healthcare leading practices that incorporate global standards.

Global standards are the foundation of effective supply chain management, resource efficiency and ultimately, patient safety, across the healthcare value chain, including procurement; inventory management; patient care; product recall; and business and clinical analytics.

The purpose of this document is to provide leading practice guidance for the implementation of global standards within common business and patient care processes that enable a clinically integrated supply chain. This document will continue to evolve as healthcare organizations implement global standards and identify new leading practices which will inform future releases of this toolkit.
The implementation recommendations within this guide reflect clinically integrated supply chain best practice and can be translated into steps that best suit the unique capabilities and requirements of individual healthcare organizations.

The guidance includes an explanation of the fundamentals of global standards, as well as the implementation steps required to enhance common supply chain and patient care processes providing enhanced patient safety, traceability capabilities and efficiency in Canada’s healthcare system.

### Global Standards Based Healthcare Ecosystem

<table>
<thead>
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Figure 1.2 Healthcare Provider Deployment Committee Ecosystem incorporates numerous supply chain and clinical processes enabling a clinically integrated supply chain.

#### 1.3 Contributors

This guide was developed with support from the Healthcare Technical Work Group, a forum for the Canadian healthcare medical device community to discuss GS1 standards implementation needs, align with North American and global standards, and develop and maintain technical implementation guidelines.

Development of this guide was also made possible through the ongoing support of GS1 Canada’s Healthcare Provider Deployment Committee. Reporting to GS1 Canada’s Carenet Healthcare Sector Board, the Committee is representative of senior-level healthcare providers, shared service organizations (SSOs), group purchasing organizations (GPOs). The Committee is an action-oriented collaboration that develops, and shares standards based leading practices, education, resources, and drives positive change across the clinically integrated supply chain to enable traceability to the patient and clinical outcome analytics.

Committee Members Share this Common Foundation:

- Accelerate change based on global standards based clinically integrated supply chain
- Enhance patient safety and traceability
- Improve supply chain efficiencies
- Drive the adoption of GS1 Standards
- Communicate in the marketplace through one voice

To become a member of GS1 Canada’s Healthcare Provider Deployment Committee and the Healthcare Technical Work Group, email healthcare@gs1ca.org.
1.4 Disclaimer

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Contents

1 Document Summary ........................................................................................................... 2
  1.1 Log of Changes .............................................................................................................. 2
  1.2 Document Purpose ....................................................................................................... 2
  1.3 Contributors ............................................................................................................... 3
  1.4 Disclaimer .................................................................................................................... 4

2 About GS1 and GS1 Canada .......................................................................................... 7
  2.1 About GS1 ................................................................................................................... 7
  2.2 About GS1 Canada ...................................................................................................... 7

3 GS1 Standards ........................................................................................................... 7
  3.1 GS1 Data Capture Standards .................................................................................. 8
    3.1.1 GS1 Barcodes ....................................................................................................... 8
    3.1.2 Radio Frequency Identification (RFID) .............................................................. 9
  3.2 Global Trade Item Number (GTIN) ........................................................................ 9
  3.3 Global Location Number (GLN) ................................................................................. 10
  3.4 Global Data Synchronization Network (GDSN) ....................................................... 11
  3.5 Global Service Relationship Number (GSRN) ....................................................... 12
  3.6 Electronic Data Interchange (EDI) .......................................................................... 13
  3.7 United Nations Standard Products and Services Code (UNSPSC) ......................... 13
  3.8 Global Product Classification (GPC) ................................................................. 13
  3.9 Global Medical Device Nomenclature (GMDN) ................................................... 13

4 10-step Guide for Healthcare Providers to Implement GS1 Standards .............. 14
  4.1 Standards Education and Resources for Staff ......................................................... 14

5 Healthcare Standards High-Level Ecosystem ......................................................... 15

6 How to Implement GS1 Standards in Contract Management Business Process .. 16
  6.1 What is the Contract Management Business process? .......................................... 16
  6.2 Fundamental Global Standards required in Contract Management .................... 16
  6.3 Steps to Implement GTIN, GLN and other Product Attributes within Contract Management Business Process ................................................................. 17
    6.3.1 Preparing to Receive GTINs and GLNs in the Contract Management and Item Master .... 17
    6.3.2 Incorporating GTINs and GLNs in the Tendering Process .................................. 19
    6.3.3 New Item Record .............................................................................................. 21
    6.3.4 Existing Item Record ...................................................................................... 21
  6.4 Implementation Benefits ......................................................................................... 22
  6.5 Standards in Contract Management Capability Assessment ..................................... 22

7 How to Implement GS1 Standards in New Item Introduction Business Process .......... 24
  7.1 What is New Item Introduction (Item Setup) Business process? ......................... 24
  7.2 Fundamental Global Standards required in New Item Introduction .................... 24
  7.3 Steps for Implementing GTINs and Product Attributes within the New Item Introduction (Item Setup) Business Process ......................................................... 25
    7.3.1 Requisitioner Initiates the Item Introduction Business Process ......................... 25
7.3.2 Buyer Initiates the Item Introduction Business Process ........................................... 26
7.3.3 The Contract Management Team Initiates the Item Introduction Business Process .......... 26
7.4 Implementation Benefits ................................................................................................. 27
7.5 Standards in New Item Setup Capability Assessment ...................................................... 27

8 How to Implement GS1 Standards in Order Management Business Process .... 29
  8.1 What is Order Management Business Process? .............................................................. 29
  8.2 Fundamental Global Standards required in Order Management ..................................... 29
  8.3 Steps to Implement GTIN and GLN within the Order Management Business Process .......... 30
    8.3.1 Purchase Order ........................................................................................................ 30
    8.3.2 Blanket Order .......................................................................................................... 33
    8.3.3 Consignment Order .................................................................................................. 34
  8.4 Implementation Benefits ................................................................................................. 37
  8.5 Standards in Order Management Capability Assessment ............................................... 38

Appendix A – Standards Resources ........................................................................ 39
Appendix B – Common Canadian Medical Device GDSN Attributes ......................... 40
Appendix C - Glossary ......................................................................................................... 45
2 About GS1 and GS1 Canada

2.1 About GS1

GS1 is a neutral, not-for-profit organization that develops and maintains the most widely used global standards for efficient business communication. We are best known for the barcode, named by the BBC as one of “the 50 things that made the world economy”. GS1 standards improve the efficiency, safety and visibility of supply chains across physical and digital channels in 25 sectors. Our scale and reach – local Member Organizations in 114 countries, 1.5 million user companies and 6 billion transactions every day – help ensure that GS1 standards create a common language that supports systems and processes across the globe. Find out more about GS1 at www.gs1.org.

2.2 About GS1 Canada

GS1 Canada is a member organization of GS1 Global. Through its unique community management role, collaborates with business leaders and industry work groups to develop and adopt standards, implementation guidelines and non-proprietary business solutions, supporting subscribers of all sizes across multiple sectors. GS1 Canada is a global leader in delivering the highest quality, perpetually cleansed and updated bilingual product content, becoming the one true source of data excellence for Canadian industry.

For more information about GS1 Canada, visit our website www.gs1ca.org or contact GS1 Canada Industry Support Services at 1-800-567-7084 or info@gs1ca.org.

3 GS1 Standards

GS1 Canada’s primary role is the development of global standards that create a common foundation for businesses by uniquely identifying, accurately capturing, and automatically sharing vital information about products, locations and assets.

Global standards level the playing field for businesses of all sizes and are used to enhance business processes across the value chain.

GS1 develops global standards in partnership with the industry experts and business teams who use them in their work. GS1 Canada is responsible to represent the requirements of Canadian industry at the global level.

GS1 Canada represents Canadian business on global standards-setting bodies. Our participation in the Global Standards Management Process (GSMP) ensures that global standards meet the needs of Canadian businesses.

The following is a summary of common GS1 standards and topics that support the implementation of GS1 standards within healthcare medical device business and clinical processes.

For information on all GS1 standards visit: www.gs1.org/industries/healthcare/standards
GS1 Standards in a healthcare setting video: https://youtu.be/tZGWSh7SNM4
3.1 GS1 Data Capture Standards

The GS1 system of standards provides a number of different data carriers that provide a means of physically affixing GS1 identification keys and other data to a physical object so that the data may be captured without the need for manual data entry. GS1 data carriers include a variety of 1-Dimensional (1-D) and 2-Dimensional (2-D) barcodes, as well as various types of Radio-Frequency Identification (RFID) tags.

3.1.1 GS1 Barcodes

Barcodes are symbols that can be scanned electronically using laser or camera-based systems. They function by encoding information such as product numbers, serial numbers and batch numbers. Barcodes play a key role in supply chains and clinical settings enabling entities such as manufacturers, retailers and hospitals to automatically identify and track products as they move through the value chain. GS1 manages several types of barcodes and RFID carriers and each is designed for use in different situations.

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<thead>
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| Stacked Omnidirectional
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<td>ITF-14</td>
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Figure 3.1.1 GS1 Data Carriers

GS1 Canada’s Healthcare and Pharmacy sector boards support the **global recommendation for the GS1 DataMatrix barcode on all regulated healthcare products** (i.e. pharmaceuticals and medical devices). The GS1 DataMatrix is a 2D barcode that can hold a significant amount of information and is legible even when printed at a small size or etched onto a product. 2D barcodes are used in a wide range of industries from manufacturing and warehousing to logistics and healthcare.
The GS1 DataMatrix barcode can encode secondary information such as expiry date and lot/batch number enabling the user to capture all data elements in a single scan, supporting clinical efficiency and accuracy at the point of patient care. Although a single barcode containing required data elements is recommended, retail pharmacies and some healthcare providers may require a formal transition period during which both a Linear (UPC) barcode and GS1 DataMatrix (2D barcode) appear on the product label. As pharmacy retailers and healthcare providers upgrade their systems and scanners to enable GS1 DataMatrix scanning, manufacturers are recommended to utilize both Linear and GS1 DataMatrix barcodes on pharmaceutical products for an interim period.

Barcodes are the transport mechanism for the GTIN and supplemental product information such as serial numbers, lot numbers and expiry date. For more information on barcoding visit GS1 Canada’s website for Barcode Standards.

### 3.1.2 Radio Frequency Identification (RFID)

RFID is a data carrier technology that transmits information via signals in the radio frequency portion of the electromagnetic spectrum. A radio frequency identification system consists of an antenna and a transceiver, which read the radio frequency and transfer the information to a processing device, and a transponder or tag, which is an integrated circuit containing the radio frequency circuitry and information to be transmitted.

**Figure 3.1.2 Electronic Product Code (EPC) RFID.**

### 3.2 Global Trade Item Number (GTIN)

The Global Trade Item Number (GTIN) is a GS1 identification key that is used to identify products across various sectors. It is a global unique identifier that is assigned to all packaging levels of a product.
Based on the GTIN Non-Reuse Rule, once the GTIN is assigned to a product it does not change over time; the GTIN is assigned permanently. This enables traceability, recall and outcome analytics processes by storing the product information including the GTIN permanently in the electronic medical record.

Manufacturers assign the GTIN to their products. Other identifiers (Brand, medical device class and license number, DIN, etc.) are pieces of information which can be linked to the GTIN in a database.

As a global industry-driven, neutral not-for-profit organization, GS1 was directed by industry to make an update to the global GTIN Management Standard to ensure traceability across the value chain through unique product identification and introduce new rules concerning GTIN non-reuse. This update aligns with global best practices.

Visit [www.gs1ca.org/standards/gtin-non-reuse/](http://www.gs1ca.org/standards/gtin-non-reuse/) to learn more about non-reuse GTINs.

Information about Healthcare GTIN Allocation Rules can be found online using the following: [www.gs1.org/1/gtinrules/en/healthcare](http://www.gs1.org/1/gtinrules/en/healthcare)

### 3.3 Global Location Number (GLN)

The Global Location Number (GLN) is a 13-digit globally unique identification code that can be used to identify locations such as physical, operational or legal entities in a clinically integrated supply chain. GLNs can take the confusion out of identifying locations and organizations, especially when there may be multiple ways to refer to the same location.

Location identification challenges resolved with the use of a GLN
GLNs are a 13-digit GS1 identification code that identify:

- **Physical locations** such as a room in a building, hospital, warehouse, warehouse gate and delivery points
- **Legal entities** such as companies operating in the supply chain including suppliers, customers, financial services companies, hospitals and freight forwarders
- **Functions within legal entities** such as a pharmacy within a larger hospital or accounts payable department; and
- **Digital locations** such as an EDI mailbox, GDSN Data Pool or Electronic Product Code /Radio-Frequency Identification (EPC/RFID) read point

GLNs are used within sectors such as healthcare, retail, transport and logistics.

GS1 Canada hosts a national GLN Registry - ECCnet Locations, that is a central, online, searchable database of accurate location information including Global Location Numbers (GLNs) and location related information for example street address, city/town, province, and postal code for different types of locations (e.g. Ship To and Bill To locations) to support trading partner transactions. For more information visit [www.gs1ca.org/eccnet-locations/](http://www.gs1ca.org/eccnet-locations/).

For more information about GLNs visit: [www.gs1ca.org/standards/global-location-numbers/](http://www.gs1ca.org/standards/global-location-numbers/)

### 3.4 Global Data Synchronization Network (GDSN)

Data synchronization is the process by which a data provider (e.g. supplier) and a data recipient (e.g. a retailer or a hospital) share data electronically. By eliminating manual transactions between trading partners, data synchronization is the foundation for effective modern data management.

The GS1 Global Data Synchronization Network (GDSN) is the infrastructure – the "information highway" – that enables the automatic electronic exchange of product data between organizations, globally. Fully supported by GS1 Canada, the GDSN is comprised of a system of independent, interoperable data pools that enable GS1 standards-based
product data to flow between trading partners using global business messaging standards.

For more information about GDSN visit: https://gs1ca.org/healthcare/gdsn/

For GDSN standards, implementation guidelines and supporting documentation visit: https://www.gs1.org/standards/gdsn

3.5 Global Service Relationship Number (GSRN)

The Global Service Relation Number can be used by services organizations to identify their relationships with individual service healthcare providers (such as doctors who work for a hospital) and individual service clients (such as a patient or a participant in a clinical trial).

If there is a need to further identify service encounters of a particular service client or provider, the Service Relation Instance Number (SRIN) may be added to the GSRN; for example, to identify the phase of a medical treatment for a patient. Also, the GSRN only identifies a business or individual in the context of the service relation, and in this way limits/reduces privacy concerns.

The GSRN can be encoded in a barcode or an RFID tag; for example, in a doctor's badge or a patient's wristband.
3.6 Electronic Data Interchange (EDI)

EDI is a standard format for computer-to-computer exchange of business information and transactions between trading partners, such as invoices and purchase orders.

The most recent version of the Electronic Data Interchange (EDI) standards used in Canada for the healthcare sector is X12 version 6020. It is strongly recommended that healthcare providers be able to use EDI to obtain GTINs and GLN electronically.

For more information about EDI, visit GS1 Canada’s website to access the Canadian Healthcare Supply Chain EDI X12 – 6020 guidelines.

3.7 United Nations Standard Products and Services Code (UNSPSC)

The United Nations Standard Products and Services Code® (UNSPSC®) is an open, global, multi-sector standard for efficient, accurate classification of products and services. UNSPSC is an efficient, accurate and flexible classification system for achieving company-wide visibility of spend analysis, as well as, enabling procurement to deliver on cost-effectiveness demands and allowing full exploitation of electronic commerce capabilities.

Encompassing a five-level hierarchical classification code set, UNSPSC enables expenditure analysis at grouping levels relevant to product needs. products can be drilled down or up to the code set to see more or less detail as is necessary for business analysis. As a result, the UNSPSC is used extensively around the world in electronic catalogs, search engines, procurement application systems and accounting systems.

For more information about UNSPSC visit: https://www.unspsc.org/.

3.8 Global Product Classification (GPC)

The GS1 Global Product Classification (GPC) standard helps global trading partners to group products in the same way, everywhere in the world. GPC offers a universal set of standards for products across multiple channels such as food, office supplies, pharmacy and healthcare. The resulting common business language is clear and instantly understandable.

The building block of GPC is a product code known as a ‘brick’. There are bricks for everything from a car to a bottle of milk. The highest level of the classification is a segment, which is defined as a particular industry. For example, a bottle of milk belongs to the food, beverages and tobacco segment. The lowest level of the classification system is called a brick attribute which is defined as a particular product detail. For example, you can specify whether milk contains animal milk (cow, goat, etc.) or non-animal milk (soy, rice, etc.).

For more information about GPC visit: www.gs1.org/standards/gpc

3.9 Global Medical Device Nomenclature (GMDN)

Global Medical Device Nomenclature (GMDN) is used to give a common generic descriptor for medical devices having similar features, characteristics and intended use for exchange
of data between regulatory bodies.

The main purpose of the GMDN is to provide a single generic naming system that will support patient safety and is used for:
- Data exchange between manufacturers, regulators and healthcare authorities
- Exchange of post-market vigilance information
- Supporting inventory control in hospitals
- Purchasing and supply chain management

For more information about GMDN visit: https://www.gmdnagency.org/

4 10-step Guide for Healthcare Providers to Implement GS1 Standards

It is important to gather as much information as possible to understand options and opportunities for implementation of GS1 standards within an organization’s clinical or business processes. Simply put, this information is needed to define the business and/or clinical process you want to refine. The more information sourced, the more effective the implementation will be.

A general guide has been developed globally to support healthcare providers’ implementation of GS1 standards. This global guide provides supplemental information to healthcare providers. To ensure successful implementation of GS1 standards in clinical or business processes, the following 10 high-level implementation steps are recommended:
1. Select the clinical or business process where GS1 standards provide benefit
2. Analyze the current and future desired situation, then build the business case
3. Establish a working structure
4. Use a project methodology
5. Develop technical solutions and undertake as-is state measures
6. Execute training and create documentation
7. Complete first stage implementation
8. Deploy new standards-based processes
9. Evaluate
10. Monitor, refine and expand


4.1 Standards Education and Resources for Staff

Before starting to implement, educate your staff or project team on GS1 Standards. The following are suggestions to get you started.

- GS1 Canada subscribers can access GS1 Canada’s Learning Zone for self-paced standards education modules.
- Access global healthcare case studies and leading practices available via GS1 Canada healthcare web page www.gs1ca.org/healthcare/
- Representatives from GS1 Canada can provide standards education and one-on-one support. For more information contact: healthcare@gs1ca.org
5 Healthcare Standards High-Level Ecosystem

Thousands of business and clinical processes occur in a hospital everyday with the goal of providing safe and efficient patient care. We refer to these processes as use cases whereby the sum of individual actions or event steps are completed to meet an end-goal. GS1 Canada’s Healthcare Provider Deployment Committee has identified high-level use cases to be developed into generic implementation guidelines incorporating the use of GS1 global standards.

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Figure 5.0 Global Standards Healthcare Ecosystem

GS1 global standards are part of the foundation to a clinically integrated supply chain. When implemented correctly, they can provide a powerful link to products, locations, people and processes that interact across multiple supply chain and clinical processes.

Global standards can be implemented in any use case where there is a need to identify products, locations, people and services to enable traceability, healthcare system efficiency and interoperability. In the following sections we have identified specific use cases and a stepwise approach that healthcare providers can take to implement GS1 global standards that support a clinically integrated supply chain.
6 How to Implement GS1 Standards in Contract Management Business Process

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**Figure 6.0 Contract Management Use Case within Global Standards Healthcare Ecosystem**

6.1 What is the Contract Management Business process?

The Contract Management process is the interaction between trading partners that ensures all parties meet their respective obligations in any procurement relationship. The purpose of this process is to meet the operational, functional and business objectives required by the contract and provide a profitable interaction.

In addition, the contract management process is a critical first step in accurately identifying the organization and product on contract and captures key pieces of information that identify details of products under contract (e.g. GTIN, manufacturer identifier, product description, brand name, unit of measure, pricing, etc.), and the respective trading partner information (GLN, company name, address, etc.). The Contract Management process ensures the healthcare provider has the accurate and complete product information before purchase orders are created.

The following outlines the steps of introducing the GTIN and GLN into to an organization’s contract management business process. These steps are provided at a high level as each organization’s detailed processes will be unique.

6.2 Fundamental Global Standards required in Contract Management

The following standards can be applied to the Contract Management use case and are described in this document:

- Global Trade Item Number (GTIN)
- Global Location Number (GLN)
- Product Classification (e.g. UNSPSC, GPC)
6.3 Steps to Implement GTIN, GLN and other Product Attributes within Contract Management Business Process

6.3.1 Preparing to Receive GTINs and GLNs in the Contract Management and Item Master

1. The healthcare provider must modify their Contract Management System and Item Master to include:
   - A field that will be used to capture the 14-digit GTIN for each packaging level. GTINs are packaging hierarchy based, therefore the healthcare providers systems must allow for the capture of GTIN and associated attributes at each packaging level. For instance, attributes such as unit of measure, quantity of each, size, and weight for GTIN A would not be the same for GTIN B. Accurate capture and retrieval of GTINs and their specific product attributes are critical to enabling downstream automation, including purchasing, inventory management, patient bedside scanning, and analytics.
     - GTINs and respective product attributes should be stored as independent fields within the healthcare providers systems. For example, the GTIN should not be combined in the same field that holds the manufacturer or vendor product number. This will prevent confusion and will enable healthcare providers to flow specific attributes to downstream supply chain and patient care processes.
     - Healthcare provider systems must be able to store the GTIN as a character field as some GTINs begin with leading zeros and must not be truncated.
     - GTIN and the related product attribute information contained in the healthcare provider’s system should be synchronized with the item master contained in the healthcare provider’s materials management information system (MMIS) and other internal systems including clinical systems such as Electronic Medical Record (EMR).
     - GTINs must be easily accessible in the healthcare provider’s staff. Staff must be able to easily search and retrieve GTINs and related product attributes within their systems.
     - GTIN and related product attributes should be mapped and flow throughout all business and clinical systems to enable automation. This will ensure the same product information will be used throughout the organization while eliminating the risks associated with manually re-keying the information into each system.
   - A field that will be used to capture the 13-digit GLN of the manufacturer, supplier or brand owner of the product.
     - GLNs are always 13-digits and should be stored in a separate field from other manufacturer/supplier identifiers to prevent confusion and support downstream processes.
o Healthcare provider systems must be able to store the GLN as a character field as some GLNs begin with leading zeros and must not be truncated.

o GLN and the location attribute information contained in healthcare provider’s systems should be synchronized with the vendor master file contained in the healthcare provider’s materials management information system (MMIS).

o GLNs must be easily accessible to the healthcare provider’s staff. Staff must be able to easily search and retrieve GLNs and related location attributes within their systems.

o GLN and related location and trading partner attributes should be mapped and flow throughout all business and clinical systems to enable automation. This will ensure the same location information to be used throughout the organization while eliminating the risks associated with manually re-keying the information into each system.

- The most recent version of the Electronic Data Interchange (EDI) standards used in Canada for the healthcare sector is X12 version 6020. It is strongly recommended that healthcare providers and their trading partners use EDI to exchange GTINs and GLN information to support and automate the order management business process.

   EDI transactions that support contract management are: EDI 832 Price Sales Catalogue.

2. Healthcare providers should update their Standard Operating Procedures (SOPs) to include the need for obtaining and storing GTINs and GLNs when adding product information to their item master.

The following are recommended leading practices for how healthcare providers can obtain GTINs, related product attributes, and the manufacturers GLN.

**Good Practice**
- Manufacturer provides the GTIN, manufacturer GLN and related product information in a table format (e.g. pdf, Excel) that can be entered manually into the healthcare provider’s system. Ideally, the manufacturer would provide this information in a standardized table format (e.g. MS Excel) that can be reviewed, modified or rejected before being automatically uploaded into the healthcare provider’s system.

- Healthcare providers requesting product information from manufacturers should submit a standardized list of product attributes for all products they purchased from the manufacturer. Common attributes include the GTIN, manufacturer/vendor product identifier, product description, unit of measure, price, production classification code, and manufacturer GLN.

GS1 Canada’s Healthcare Provider Deployment Committee provides the [Medical Device Attribute Navigator Tool](https://www.gs1ca.org/healthcare/navigator/) for use by healthcare providers to communicate their specific product attribute needs for medical devices. For more information, visit [www.gs1ca.org/healthcare/navigator/](http://www.gs1ca.org/healthcare/navigator/)

- Refer to GS1’s [GDSN Healthcare Use Cases Publication](https://www.gs1.org/tools/gdsn-healthcare-use-cases) for a list of globally standardized attributes that can be used to exchange product data in the GDSN.

**Best Practice**
- GS1 Canada hosts the national GLN registry called ECCnet Locations that can be used by all trading partners to load GLN and related location attributes that support business processes and publish this information to their trading partners. Using [ECCnet Locations Registry](https://www.gs1ca.org/eccnet-locations/) to support your business process will help your organization maintain and exchange up to date GLNs and trading partner information. For more information on ECCnet Locations, visit [www.gs1ca.org/eccnet-locations/](http://www.gs1ca.org/eccnet-locations/)
The most recent version of the Electronic Data Interchange (EDI) standards used in Canada for the healthcare sector is X12 version 6020. It is strongly recommended that healthcare providers and their trading partners use EDI to exchange GTINs and GLN information to support and automate the order management business process. EDI transactions that support contract management are: EDI 832 Price Sales Catalogue.


Medical Device Product Category: Healthcare providers receive the GTIN, GLN and related product information using the Global Data Synchronization Network (GDSN). For more information, visit https://gs1ca.org/healthcare/gdsn/

Pharmacy and Foodservice Product Categories: Healthcare providers support a sector driven protocol approach for exchanging accurate, perpetually cleansed and updated product data that meets the needs of healthcare providers. GS1 Canada’s ECCnet Industry Managed Solutions are Powered by TrueSource and based on global standards providing a one-to-many approach to data synchronization for pharmacy and foodservice categories in healthcare. For more information visit: https://gs1ca.org/all-solutions/

Healthcare providers will need to invest in technology and resources or partner with a solution provider to develop either EDI and/or GDSN capabilities. The upgrade of internal systems is dependent on your solution provider capabilities. Internal business and clinical systems must be able to store and process the standards (e.g. GTIN, GLN, EDI) to enable your organization’s implementation and use of global standards that are foundational to a clinically integrated supply chain. For more information visit https://solution-providers.gs1.org/resources

Manufacturers that have not barcoded their product with a GTIN may still provide the GTIN information electronically (i.e. GDSN or EDI). However, as the barcode will not be labeled on the physical product, healthcare providers are not able to use scanning technology which is foundational to automating supply chain and patient care processes. Healthcare providers can direct manufacturers to contact GS1 Canada for standards and barcoding support by emailing healthcare@gs1ca.org or obtaining information online at www.gs1ca.org

Implementation of GS1 standards involves change management for all stakeholders. Manufacturers who have not barcoded and loaded their medical device products into the GDSN will need to establish this as a corporate-level objective and will need time to plan and execute this capability. It is recommended that healthcare providers include global standards adoption as a standing agenda item for meetings with manufacturers and scorecard implementation efforts to advance overall adoption efforts.

It is recommended that healthcare providers load and maintain GTINs for all available packaging levels including unit of use in their systems which can be used in downstream business and clinical processes. The same is true for shared service organizations and group purchasing organizations as they play a crucial role in exchanging product information with their members and customers.

6.3.2 Incorporating GTINs and GLNs in the Tendering Process

Manufacturers must provide accurate product information to healthcare providers during the tendering process that will be used to support decision making on what products the healthcare provider wants to place on contract. The tendering process can involve the use Request for Information (RFI), Request for Quote (RFQ), Request for Proposal (RFP) processes as determined by regulatory bodies and the healthcare provider to suit their purpose and usually requires the use of an open and standardized public tendering process. In the tendering process, healthcare providers will identify their product information requirements to manufacturers which is crucial to support the Contract Management business process.
Typically, the healthcare provider will provide a table or template for the manufacturer to fill out and return as part of the tending process. Global standards use in the tending process is a key starting point for a healthcare provider to incorporate standards into the contract management system and ultimately the healthcare provider’s item master which can flow this information downstream to other supply chain and clinical systems. To initiate the use of global standards requirements in the tending process which supports a clinically integrated supply chain, healthcare providers should include the following elements in their contract and tendering templates for manufacturers to complete and return.

- The Global Trade Item Number (GTIN) for all packaging levels (pallet, case, box, each, and unit of use). GTINs should be provided in a 14-digit format.

- A list of clearly defined product attributes (e.g. product description, unit of measure, quantity of each, price, etc.) linked to each GTIN. It is recommended that manufacturers continue to provide the manufacturer/vendor product number to help the healthcare provider cross-reference GTINs to legacy data.

- The Global Location Number (GLN) for the legal entity of the manufacturer or brand owner. It is recommended that the GLN be loaded into ECCnet Locations Registry to be accessed by healthcare providers. GLNs must be in a 13-digit format.

Note: Requesting to receive GTIN and GLNs from manufacturers may delay automation of the new item listing process by manufacturers who have not adopted GS1 standards. It is highly recommended that healthcare providers communicate the need for manufacturers to provide GTINs for all packaging levels as well as communicate the need for manufacturers GLNs in the Request for Proposal (RFP) process. This will provide manufacturers with advance notice of global standards readiness expectations should they be successful in the bid. Healthcare providers can direct manufacturers who are new to global standards to contact GS1 Canada for standards support by emailing healthcare@gs1ca.org or www.gs1ca.org.

- Healthcare providers implementing United Nations Standard Products and Services Code (UNSPSC) as a standardized classification system across multiple product categories should request the manufacturer to provide the full UNSPSC classification information for each product including the 4-level tree structure code and description. For information on UNSPSC, visit: www.unspsc.org

- Healthcare providers implementing Global Product Classification (GPC) as a standardized classification system used in the GDSN across multiple product categories should request the manufacturer to provide the full GPC classification information for each product including the 4-level tree structure code and description. For information on GPC, visit: www.gs1.org/standards/gpc/jun-2019

- Healthcare provider implementing the Global Medical Device Nomenclature (GMDN) should request the manufacturer to provide the GMDN term name, definition and code for each product. For information on GMDN, visit: https://www.gmdnagency.org/

- To support consistency in the creation of standardized product descriptions for the medical device category, GS1 Canada’s Healthcare Product Description Standardization Work Group created a guidance document that includes recommendations for short form descriptions. These guidelines are voluntary and healthcare providers can request medical device manufacturers to observe when providing product descriptions (e.g. catalogue publication using the GDSN or responding to a request for quote). To access these guidelines from GS1 Canada, visit Healthcare Product Description Implementation Guidelines
The healthcare provider’s Contract Management Team sends the vendor a list of attributes required for describing products and creating new item records in the item master. This list should include fields to enter GTINs for each packaging hierarchy, including unit of use, for product identification. The GLN for manufacturer/supplier identification should also be included in the list.

The vendor submits all attributes requested by the healthcare provider in the tendering process which are needed to create or update in the healthcare provider’s item master.

The following identifies generic implementation steps for the Contract Management business process which starts once the tendering process is concluded and a contract has been signed. The signed contract may contain either a **New Item Record** or **Existing Item Record**.

### 6.3.3 New Item Record

1. List of product attributes including GTINs and GLNs is received from the manufacturer. The healthcare provider sends the information to the Contract Management Team.

2. The Contract Management Team reviews and validates the GTIN, associated product attributes, and the GLN received from the manufacturer.

3. The Contract Management Team submits the GTIN, associated product attributes, and manufacturer’s GLN to the Item Master Management Team to create the new item record(s).

4. The Item Master Management Team creates new records in the item master including the GTINs, associated product attributes, and manufacturer’s GLN.

5. The Item Master Management Team notifies the Contract Management team and other internal teams of the new record.

6. After the new item is activated in the item master, it is available to authorized stakeholders.

### 6.3.4 Existing Item Record

1. List of product attributes including GTINs and GLNs received from the manufacturer. The healthcare provider sends the information including GTIN and GLN to the Contract Management Team.

2. The Contract Management Team reviews and validates the data that is received from the vendor.

3. The Contract Management Team submits the data including GTIN and GLN to the Item Master Management Team to update the item records.

4. The Item Master Management Team updates the item record and ensures the GTIN, related product attributes, and GLN have been recorded in the item master.

5. The Item Master Management Team notifies the Contract Management Team and other internal teams of the updated record.

6. After the updated item is activated in the item master, it is available to authorized stakeholders.
6.4 Implementation Benefits

Benefits of implementation of standards in Contract Management:
- Product data will include GTINs for all packaging levels as well as the unit of use which is foundational to support downstream automation of supply chain and patient care processes.
- Inclusion of GTIN and GLN in templates used during tendering process create awareness and a sense of urgency for manufacturers to support global standards as the new norm for doing business.
- Capturing GTINs for all packaging levels and unit of use in the Contract Management process enables shared service organizations and group purchasing organizations to flow this information on to their members and customers.
- GTINs captured in the contract management process are foundational to drive spend analytics and cost analysis, ensuring quality outcome analytics for healthcare providers.
- Reduces manual errors and improves accuracy of downstream use cases such as Order Management through Electronic Data Interchange (EDI).
- GTINs and GLNS captured in the contract management process enable more effective and efficient product traceability and recalls.
- The full United Nation Standard Products and Services Classification (UNSPSC) information (i.e. the 4-level tree structure code and description) enables healthcare providers to group products into categories to support:
  - Spend analytics and reporting.
  - Product sourcing process.
  - Category spend management.
  - Importation/customs.
  - Support alignment of item masters across multiple Enterprise Resource Planning (ERP) systems.
- Global Medical Device Nomenclature (GMDN) provides standardized clinical nomenclature enabling:
  - Communication and record keeping between manufacturers and regulatory bodies (e.g. Unique Device Identification or UDI for medical devices).
  - Collation of post-market surveillance data.
  - Inventory management analysis.
  - Supply chain management (e.g. identify comparable products in the event of a backorder or shortage).
- Efficient traceability of supplies in the healthcare supply chain.
- Healthcare provider staff spend more time on patient care and less time on manual documentation or looking for product approved for purchase on contract.

For more information visit Safer, More Efficient Care Starts with a Simple Scan.

6.5 Standards in Contract Management Capability Assessment

Healthcare Providers can use the following self-assessment to determine their state of readiness to use global standards in the Contract Management business process. Indicate Y (yes) or N (no) for each capability to assess your organizational readiness for using global standards in this business process. Where a gap is identified in your assessment, contact GS1 Canada by emailing.
healthcare@gs1ca.org to review your business processes, explore options on how you can address the gap, and advance standards implementation efforts.

Legend:
MR – Minimum Requirement
LP – Leading Practice

<table>
<thead>
<tr>
<th>Contract Management Capability Assessment</th>
<th>Y/N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Internal systems are capable of processing 14-digit GTINs for product</td>
<td>MR</td>
</tr>
<tr>
<td>packaging hierarchies.</td>
<td></td>
</tr>
<tr>
<td>2. Internal systems are capable of processing 13-digit GLNs for locations.</td>
<td>MR</td>
</tr>
<tr>
<td>3. Internal systems are interoperable and can exchange GTINs and GLNs with</td>
<td>MR</td>
</tr>
<tr>
<td>other hospital systems. <strong>Examples:</strong> Materials Management</td>
<td></td>
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<tr>
<td>Information System (MMIS), Business Intelligence (BI), Electronic</td>
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<tr>
<td>Medical Record (EMR).</td>
<td></td>
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<tr>
<td>4. Healthcare provider requires trading partners to submit a list of product</td>
<td>MR</td>
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<tr>
<td>attributes and respective GTINs for <strong>all packaging hierarchies</strong> using</td>
<td></td>
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<tr>
<td>standardized templates to capture requirements.</td>
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</tr>
<tr>
<td>5. Healthcare provider requires trading partners to use the GDSN to submit</td>
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</tr>
<tr>
<td>standardized information on medical device / surgical product attributes</td>
<td></td>
</tr>
<tr>
<td>(product catalogue) and respective GTINs for <strong>all packaging hierarchies</strong></td>
<td></td>
</tr>
<tr>
<td>6. Healthcare provider requires trading partners to register their GLNs</td>
<td>LP</td>
</tr>
<tr>
<td>(i.e. Legal Entity, Order From, and Remit Payment To GLNs) in ECCnet</td>
<td></td>
</tr>
<tr>
<td>Locations as part of the tendering process.</td>
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<tr>
<td>7. Contract business process includes requirement for manufacturers to</td>
<td>LP</td>
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<tr>
<td>provide global standardized product classification (e.g. UNSPSC) linked to</td>
<td></td>
</tr>
<tr>
<td>the GTIN.</td>
<td></td>
</tr>
<tr>
<td>8. Contracting business process includes requirement for manufacturers to</td>
<td>LP</td>
</tr>
<tr>
<td>provide global standardized product nomenclature (e.g. GMDN) linked to the</td>
<td></td>
</tr>
<tr>
<td>GTIN.</td>
<td></td>
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<tr>
<td>9. Organization’s Standard Operating Procedures (SOP) contain detailed</td>
<td>LP</td>
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<tr>
<td>guidance for GTIN and GLN use in Contract Management. SOPs are reviewed</td>
<td></td>
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<tr>
<td>and updated annually.</td>
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<tr>
<td>10. Healthcare provider includes review of GS1 standards requirements in</td>
<td>LP</td>
</tr>
<tr>
<td>vendor meetings and scorecards.</td>
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</tr>
</tbody>
</table>

*Processing refers to input, store, display and export of GTIN and/or GLN.*
7 How to Implement GS1 Standards in New Item Introduction Business Process

Global Standards Based Healthcare Ecosystem

<table>
<thead>
<tr>
<th>Vendor and Item Management</th>
<th>Procurement and Inventory Management</th>
<th>Patient Care Pathway</th>
<th>Analytics and Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sourcing / Category Management</td>
<td>Order Management</td>
<td>Operating Room (OR) Management</td>
<td>Analytics/Research</td>
</tr>
<tr>
<td>Contract Management</td>
<td>* eCommerce</td>
<td>* Schedule Case</td>
<td>* Case Costing</td>
</tr>
<tr>
<td>Contract Financial Analysis</td>
<td>* Electronic Funds Transfer (EFT)</td>
<td>* Pick Case Cart</td>
<td>* Value-Based Procurement</td>
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<tr>
<td>Spend Analysis</td>
<td>* Consignment Management</td>
<td>* Procedure</td>
<td>* Patient Care Outcomes</td>
</tr>
<tr>
<td>Item Identification / Item Management (Item Setup)</td>
<td>Warehouse/Inventory Management</td>
<td>* Verify Case</td>
<td>* Cost, Quality Outcomes</td>
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<tr>
<td>Customer Management</td>
<td>Cart and Asset Management</td>
<td>* Replenish / Receive</td>
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</tr>
<tr>
<td>Vendor Management</td>
<td>Recall Management</td>
<td>Patient Management / Electronic Medical Record (EMR)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Waste Management</td>
<td>Recall Management</td>
<td></td>
</tr>
</tbody>
</table>

Figure 7.0 New Item Introduction Use Case within Global Standards Healthcare Ecosystem

7.1 What is New Item Introduction (Item Setup) Business process?

A new product is introduced to the supply chain by adding a product record to the organization’s item master. Product records added to the item master are called “items.” The business process of creating a new item in a healthcare provider item master is referred to as new item introduction or item setup.

Each new item master product record is assigned a unique code by the healthcare provider’s system, and it stores all essential information about the product including the GTIN, vendor number, product description, units of measure, product classification and other attributes that define or describe the product.

Accuracy of the hospital item master is crucial and it controls how products are identified across the clinically integrated supply chain from requisitioning, purchasing, inventory management, clinical workflow from the operating room to the patient’s electronic health record (EHR) and finally to enable cost, quality, outcome analytics. Attribute requirements must be driven by the business and/or clinical use cases that enable the clinically integrated supply chain. For example, product attributes that support the procurement process and product attributes that support clinical workflow in the operation room and traceability of products to a patient record.

7.2 Fundamental Global Standards required in New Item Introduction
The following standards can be applied to the New Item Introduction use case and are described in this document:

- Global Trade Item Number (GTIN)
- Global Location Number (GLN)
- Product Classification (e.g. UNSPSC, GPC)
- Global Medical Device Nomenclature (GMDN)
- Electronic Data Interchange (EDI)
- Global Data Synchronization Network (GDSN)

7.3 Steps for Implementing GTINs and Product Attributes within the New Item Introduction (Item Setup) Business Process

The following outlines the steps for implementing GS1 standards including GTIN and GLN within your item setup business process. These steps are provided at high level as each organization’s detailed business processes will be unique.

Requests to add a new item to the item master may come from a variety of sources. The three most common item-add requests may be received from:

1) A Requisitioner
2) A Buyer
3) The Contract Management Team

7.3.1 Requisitioner Initiates the Item Introduction Business Process

This is the process where a requisitioner (e.g. a nurse) creates and submits a request to add a new product to the item master. The following are recommendations on how to implement GS1 standards within this process.

The healthcare provider’s item master must be capable of capturing GTINs, associated product attributes and GLNs. Refer to section 6.3.1 Preparing to Receive GTINs and GLNs in the Contract Management and Item Master

1. When the requisitioner submits the request to add products into the healthcare provider’s item master, the GTIN and GLN should be provided if known. The information provided is validated for accuracy and completeness by an internal Team, such as Contract Management Team and Item Master Management Team. The Team will also confirm or if necessary, obtain the appropriate GTIN and GLN information.

2. The Contract Management Team using the GTIN as the product identifier and the GLN as the manufacturer/supplier identifier adds the product to an existing contract if required.

3. Item Master Management Team creates a new item record using the GTIN as the product identifier and the GLN as the manufacturer/supplier identifier in the Materials Management Information System (MMIS).

4. The Item Master Management Team notifies the Requisitioner and the Contract Management Team that the item has been setup in the MMIS.

5. After the new item is activated in the item master, the GTIN and GLN are available through the system for all authorized stakeholders. The GTIN and GLN will be used for ordering products within the healthcare provider’s systems.
7.3.2 Buyer Initiates the Item Introduction Business Process

Item introduction starts when a Buyer creates and submits a request to add a new product to the Item Master. The following are recommendations on how to implement GS1 standards within this process.

The healthcare provider’s item master must be capable of capturing GTINs, associated product attributes and GLNs. Refer to section 6.3.1 Preparing to Receive GTINs and GLNs in the Contract Management and Item Master

1. Buyer completes internal documentation by entering all manufacturer/supplier and product information including the GTIN and GLN. Internal forms must be enabled to identify 14-digit GTINs and associated product attributes for multiple packaging hierarchies, unit of use level, and the 13-digit GLN.

2. Buyer submits the documentation to the Purchasing Department.

3. Purchasing Department sources the product, identifies the vendor using the GLN, adds contract number (if applicable), GTINs by packaging hierarchy, price, and other required product information/attributes to the request.

4. The Purchasing Department submits the completed request that contains GTINs for product identification and GLN for manufacturer/supplier identification to internal teams, such as the Contract Management Team and Item Master Management team for validation.

5. The Item Master Management Team validates the information provided.

6. The Contract Management Team follows their business rules for processing new products and validating the data and notifies the Item Master Management Team.

7. The Item Master Management Team creates a new Item record by entering all GTINs, GLN and other attributes to the MMIS.

8. The Item Master Management Team sends the GTINs and the GLN to the Purchasing Department to confirm the product has been setup.

9. The Item Master Management Team notifies the Contract Management team of the new record.

10. After the new product is activated in the item master, it is available to authorized stakeholders.

7.3.3 The Contract Management Team Initiates the Item Introduction Business Process

This process outlines the steps taken when a contract has been granted to the winner of the bid process.

The healthcare provider’s item master must be capable of capturing GTINs, associated product attributes and GLNs. Refer to section 6.3.1 Preparing to Receive GTINs and GLNs in the Contract Management and Item Master
7.4 Implementation Benefits

Benefits of implementation of standards in New Item Setup Process:
- Product data will include GTINs for all packaging levels and unit of use level that are foundational to support downstream automation of supply chain and patient care processes to enable a clinically integrated supply chain.
- GTINs captured in the new item setup process are foundational to drive cost and quality outcome analytics for healthcare providers.
- Standardized product identification using GTIN and associated product attributes improves data accuracy for downstream use cases such as Order Management through Electronic Data Interchange (EDI) and product traceability and recall.
- Manufacturer identification is standardized using the GLN to improve trading partner identification in downstream commercial transactions (EDI) and analytics.
- Efficient traceability of supplies in the healthcare supply chain.
- Healthcare provider staff responsible for ordering product will have access to updated product information in the item master that supports procurement activities.
- Clinical staff spend more time with patients, less time spent on manual documentation or looking for product approved for purchase on contract.

For more information visit Safer, More Efficient Care Starts with a Simple Scan.

7.5 Standards in New Item Setup Capability Assessment

Healthcare Providers can use the following self-assessment to determine their state of readiness to use global standards in the New Item Setup business process. Indicate Y (yes) or N (no) for each capability to assess your organizational readiness for using global standards in this business process. Where a gap is identified in your assessment, contact GS1 Canada by emailing healthcare@gs1ca.org to review your business processes, explore options on how you can address the gap, and advance standards implementation efforts.

Legend:
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<table>
<thead>
<tr>
<th>New Item Setup Capability Assessment</th>
<th>Y/N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Internal systems are capable of processing 14-digit GTINs for product packaging hierarchies.</td>
<td>MR</td>
</tr>
<tr>
<td>2. Internal systems are capable of processing 13-digit GLNs for locations.</td>
<td>MR</td>
</tr>
<tr>
<td>3. Internal systems are interoperable and can exchange GTINs and GLNs with other hospital systems. Examples: Contract Management, Electronic Data Interchange (EDI), Business Intelligence (BI), Electronic Medical Record (EMR).</td>
<td>LP</td>
</tr>
<tr>
<td>4. A standardized list of product attributes for all product hierarchies linked to the GTIN is maintained in the Item Master for all product</td>
<td>MR</td>
</tr>
<tr>
<td>New Item Setup Capability Assessment</td>
<td>Y/N</td>
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<td>-------------------------------------</td>
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</tr>
<tr>
<td>categories to support a clinically integrated supply chain. <em>Refer to Contract Management business process for guidance on obtaining GTIN and GLN information from vendors.</em></td>
<td></td>
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<tr>
<td><strong>5.</strong> Healthcare provider requires trading partners to use the GDSN to provide a standardized list of medical device / surgical product attributes (product catalogue) and respective GTINs for <strong>all packaging hierarchies</strong>.</td>
<td>LP</td>
</tr>
<tr>
<td><strong>6.</strong> Organization’s Standard Operating Procedures (SOP) contain guidance for obtaining and maintaining GTIN and GLN in Item Master. SOPs are reviewed and updated annually.</td>
<td>LP</td>
</tr>
</tbody>
</table>

*Processing refers to input, store, display and export of GTIN and/or GLN.*
8 How to Implement GS1 Standards in Order Management Business Process

8.1 What is Order Management Business Process?

Order Management refers to the business process as it relates to ordering of goods or services. The scope of Order Management is broad and begins with the creation of an order. It includes tracking and fulfillment, invoicing and payment, reporting and handling of returned goods. Management and maintenance of all related systems are critical for the Order Management processes to run efficiently and with minimal errors.

The following outlines the steps of introducing the use of standards-based Electronic Data interchange (EDI) transactions and the GTIN and GLN into the healthcare provider’s order management business process. Having a complete and accurate item master is integral to effective order management and therefore key steps to establishing standards in the item master are included. For more information on setting up and maintaining products in the item master refer to section 7, How to Implement GS1 Standards in New Item Introduction Business Process. The following implementation steps are provided at a high level as each organization’s detailed business processes will be unique.

8.2 Fundamental Global Standards required in Order Management

The following standards can be applied to the Order Management use case and are described in this document:

- Global Trade Item Number (GTIN)
- Global Location Number (GLN)
- Electronic Data Interchange (EDI)
8.3 Steps to Implement GTIN and GLN within the Order Management Business Process.

Guidance for the implementation of GTINs and GLNs within the Order Management business process is provided at a high level for the following three common types of orders:

1) **Purchase Order** – a standard purchase order, or PO, is a commercial document issued by a buyer committing to pay the seller for the sale of specific products or series to be delivered on a future date.

2) **Blanket Order** - type of purchase order often used for expendable goods, that allows for the release of goods across multiple delivery dates over a period of time.

3) **Consignment Order** - an agreement with a vendor that allows the product to be ordered and received, but the inventory belongs to the vendor until the product is used. The product is not received into the healthcare provider’s own inventory and does not have a value assigned to it but will be identified as consignment inventory.

8.3.1 Purchase Order

1. An authorized user (e.g. clinical staff) submits a requisition for goods and/or services using the healthcare provider’s Standard Operating Procedures (SOP). The requisition should contain GTIN and GLN as product and location identifiers if known.

2. An authorized recipient of the requisition (e.g. Purchasing Department) will review and approve the requisition for accuracy. The review process may include validation of signing authority, verify compliance to hospital policy, review sales quotations, identify missing GTINs and associated product attributes, identify missing supplier GLN.

3. The approved requisition is converted to a Purchase Order (PO) if items are not in inventory. The purchase order will contain the GTIN for each line item. Only GTINs for the purchasing unit of measure are to be included in the PO and are listed for every line item to identify the specific product and packaging level being ordered.

4. GLNs should be included in the PO to identify the following:
   a. GLN for the party submitting the order (i.e. healthcare provider)
   b. GLN for the healthcare provider’s Ship To location (i.e. where the order is to be delivered to)
   c. GLN for the receiving party of the order (i.e. vendor)
   d. GLN for the Bill To location to identify the billing party (e.g. healthcare provider)

5. The PO is sent to the vendor.

The healthcare provider can send the Purchase Order in several ways:

**Good Practice**
- Healthcare provider generates a manual purchase order (e.g. fax, email, vendor website) and sends to the vendor. The healthcare provider manually validates accuracy of purchase order including GLN, GTIN and related product attributes including vendor catalogue number, product description, unit of measure, order quantity, and pricing.

**Better Practice**
- Healthcare provider generates a standardized purchase order using Electronic Data Interchange (EDI 850 Purchase Order) transaction from their MMIS that is sent to the vendor. Healthcare provider validates accuracy of purchase order including GLN, GTIN and related product attributes.
including vendor catalogue number, product description, unit of measure, order quantity, and pricing. Healthcare providers will need to invest in technology and resources or partner with a solution provider to develop this capability if not already implemented.

- Requesting manufacturers to receive GTIN and GLNs in the Order Management process may delay manufacturers who have not adopted GS1 standards. It is highly recommended that healthcare providers communicate the need for manufacturers to provide GTINs for all packaging levels as well as the manufacturer’s GLN prior to using EDI. See 6.3.2. Incorporating GTINs and GLNs in the Tendering Process. This will provide manufacturers with advance notice of global standards readiness expectations should they be successful in the bid. Healthcare providers can direct manufacturers to contact GS1 Canada for standards support and EDI guidance by emailing healthcare@gs1ca.org or www.gs1ca.org.

- For information on transactions available from GS1 Canada in EDI version 6020:
  - Invoice (810)
  - Price/Catalogue (832)
  - Purchase Order (850)
  - Purchase Order Acknowledgement (855)
  - Advance Ship Notice (856)
  - Functional Acknowledgement (997)
  - Payment Order Remittance Advice (820)
  - Product Activity Data (852)
  - Product Transfer Resale Report (867)

**Best Practice**

- To support the perfect order management concept, healthcare providers must maintain ongoing accuracy of GLN, GTIN, product attributes, and other related product information such as pricing in the item master. The recommended best practice for maintaining item master information for medical devices is using the Global Data Synchronization Network (GDSN) or Electronic Data Interchange (EDI 832 Catalogue).

  The healthcare provider generates a standardized electronic purchase order (EDI 850 Purchase Order) from their MMIS which is automatically validated for accuracy. Healthcare providers will need to invest in technology and resources or partner with a solution provider to develop this capability if not already implemented. For information on GDSN standards in healthcare, visit https://gs1ca.org/healthcare/gdsn/. For more information on EDI standards in healthcare, visit https://gs1ca.org/healthcare/standards-implementation/.

6. The vendor receives the PO. The vendor’s system processes the PO containing GTINs, associated product attributes and GLNs and identifies any discrepancies that may exist and follows up with the healthcare provider to resolve.

7. The vendor replies to the healthcare provider with a purchase order confirmation called the Purchase Order Acknowledgment (EDI 855 POA) transaction. The POA uses the GLN to accurately identify the vendor and the healthcare provider. The GTINs are used in the POA to identify the line items.
   - The POA identifies discrepancies in the PO such as vendor catalogue number, unit of measure, and pricing.
   - As a best practice, the POA will identify discrepancies in GTIN and GLN (e.g. incorrect or missing identifiers).

8. Healthcare provider receives and reviews the POA and corrects any discrepancies in the PO using the GTIN to identify the product and apply the appropriate changes. It is important that the healthcare provider resolves any discrepancies identified (e.g. GTIN, unit of measure, pricing) by updating the item master. This will ensure accuracy for future POs.
   - Estimated time of delivery if provided in the POA by the vendor will be entered in the healthcare provider’s material management system to support order tracking.
9. The vendor identifies the product to be picked using the GTIN. The vendor may use their own GLN (not listed on the PO) to identify the specific internal warehouse location (e.g. shelf or bin) where the product is stored.
   - The vendor picks and packs products as per the PO.
   - The vendor applies the correct Serialized Shipping Container Code (SSCC) to the pallet ensuring the barcode is created based on GS1 global standards and is readable by a scanner.
   - The vendor ships the products to the healthcare provider.

10. The vendor sends a shipment notification to the Healthcare Provider. If a shipment notification is sent, it should contain the SSCC of the shipment, the GLN to correctly identify the trading partners and ship to location, and the GTINs to identify products being shipped. The Healthcare Provider uses the information in the shipment notification to prepare for receiving deliveries.

    **Good Practice**
    - Vendor submits a manual shipment notification (e.g. fax, email, online) to the healthcare provider. Healthcare provider prepares to receive products.

    **Better Practice**
    - Vendor generates a standardized EDI Advance Ship Notice (EDI 856 ASN) transaction and sends to the healthcare provider. Healthcare provider receives the ASN and prepares to receive products. The ASN information is stored in the healthcare provider’s system to manage the receiving process and for later use in the 3-way match business process. Healthcare providers will need to invest in technology and resources or partner with a solution provider to develop this capability if not already implemented. For more information on EDI standards in healthcare, visit [https://gs1ca.org/healthcare/standards-implementation/](https://gs1ca.org/healthcare/standards-implementation/).

11. Healthcare provider receives the shipment.
    - Orders may be received in full, or partially received if all items requested were not available at the time of order.
    - Partially received orders are noted in the system and the backorders are followed up until resolved (i.e. filled or cancelled).
    - Receipt of products is captured in the system leveraging the GTIN to identify the correct product.
    - The healthcare provider uses the information from the ASN to receive shipment. Healthcare providers must conduct regular audits to ensure accuracy of ASN to physical receipt of goods. This process is most effective where trusted business relationships have been established.

12. The received order is organized and re-packaged for delivery to the hospital floor or unit if applicable.

13. The order is delivered to the healthcare providers’ internal locations identified by the GLN as per the requisition.

14. The vendor creates and submits the invoice. The invoice contains the GTIN for each product and the GLN to identify the issuer of the invoice (i.e. vendor Remit To), receiver of the invoice (i.e. healthcare provider Bill To), and the GLN locations for where the product was shipped (i.e. healthcare provider Ship To).

    **Good Practice**
- Vendor submits a manual invoice (e.g. fax, email, mail) to the healthcare provider. Healthcare provider manually validates accuracy of invoice to the purchase order using the GTIN to identify products or services.

**Better Practice**
- Vendor generates a standardized electronic invoice (EDI 810 Invoice) and sends to the healthcare provider. Healthcare provider manually validates accuracy of invoice to the purchase order and the Advance Ship Notice (if received) against the vendor catalogue number, GLN, GTIN and other related product attributes including the unit of measure, order quantity, and pricing. Healthcare providers will need to invest in technology and resources or partner with a solution provider to develop this capability if not already implemented. For more information on EDI standards in healthcare, visit [https://gs1ca.org/healthcare/standards-implementation/](https://gs1ca.org/healthcare/standards-implementation/).

**Best Practice**
- Vendor generates a standardized electronic invoice (EDI 810 Invoice) and sends to the healthcare provider. The healthcare provider’s system automatically conducts a 3-way match to validate accuracy of the invoice to the purchase order and Advance Ship Notice (EDI 856 ASN) against the GLN, GTIN and associated product attributes including the unit of measure, order quantity, and pricing. Healthcare providers will need to invest in technology and resources or partner with a solution provider to develop this capability. For more information on EDI, visit [www.gs1ca.org](http://www.gs1ca.org).
- Evaluated Receipt Settlement (ERS) process where the healthcare provider automatically authorizes payment for a product by comparing what was ordered in the EDI Purchase Order (EDI 850 PO) to what was received in the EDI Advance Ship Notice (EDI 856 ASN). ERS is considered a best practice across other sectors but is not widely used in the healthcare sector at this time.

15. The healthcare provider reviews, pays the invoice and closes the PO.

**Good Practice**
- Healthcare provider issues a manual payment (i.e. cheque) to the vendor once the shipment has been received in full.

**Better Practice**
- Healthcare provider sends payment by Electronic Funds Transfer (EFT) once the shipment has been received in full. Healthcare provider manually provides payment remittance information to the vendor. Healthcare providers will need to invest in technology and resources or partner with a bank or solution provider to develop this capability.

**Best Practice**
- Healthcare provider sends payment by Electronic Funds Transfer (EFT) once the shipment has been received in full. Additionally, the healthcare provider will automatically provide Electronic Payment Remittance information (EDI 820 Payment Order/Remittance Advice) to the vendor. Healthcare providers will need to invest in technology and resources or partner with a solution provider to develop this capability if not already implemented. For more information on EDI standards in healthcare, visit [https://gs1ca.org/healthcare/standards-implementation/](https://gs1ca.org/healthcare/standards-implementation/).

### 8.3.2 Blanket Order

Blanket order is a type of purchase order that allows for multiple delivery dates over a period. This type of order is often used when there is a frequent need for expendable goods. The releases against a blanket purchase order will be created as needed until one of the following is achieved:

- the contract is fulfilled.
b. the end of the order period is reached.

c. the pre-determined maximum order value is reached.

d. The contract is terminated.

**General business process flow for blanket orders is the same as the purchase order outlined above. Refer to section 8.3.1 Purchase Order.**

**General business process flow for blanket orders is the same as the purchase order outlined above. Refer to section 8.3.1 Purchase Order.**

When processing a blanket order, the following differences exist:

- An authorized user submits a requisition identifying the need for a Blanket Order for goods using the healthcare providers Standard Operating Procedures (SOP).
- Blanket Orders have a pre-determined dollar value limit and/or quantity limit.
- Blanket Orders usually have a defined scheduled shipment as well as multiple release dates.
- An authorized recipient of the requisition (e.g. Purchasing Department) will issue a release against the Blanket Order identifying the products to be shipped to the healthcare provider (i.e. GTIN and associated product attributes). The release complies with the terms agreed to by both the parties under the Blanket Order (e.g. price, product quantity).

### 8.3.3 Consignment Order

Consignment order is an initial order for items to be delivered to the healthcare provider, but at zero cost since the vendor owns the inventory. This type of order is intended as a pay-as-consumed process. An example of products used on consignment would be catheters.

This is the process where a requisitioner (e.g. a nurse) creates and submits a request to order a product on consignment. The following are recommendations on how to implement GS1 standards within this process.

The healthcare provider’s item master must be capable of capturing GTINs, associated product attributes and GLNs. Refer to section 6.3.1 Preparing to Receive GTINs and GLNs in the Contract Management and Item Master.

1. An authorized user submits a requisition for goods and/or services using the healthcare providers internal Standard Operating Procedures (SOP). The requisition should contain GTIN and GLN as standardized product and location identifiers.

   **Note:** The requisition follows the standard PO process but results in shipment & delivery of all goods to the healthcare provider's location for storage until needed. The invoice will be for zero dollars ($0) and lists all items (GTINs and associated product attributes) on consignment that were shipped to a designated location at the healthcare provider (e.g. GLN for the Cath Lab.)

2. When an item is used or consumed, the buyer is notified to create a PO.

   a. If the item needs to be replaced, the buyer will create a bill-and-replace purchase order referencing the lot number, serial number and expiry date.

   b. If the item does not need to be replaced, the buyer will create a bill-only purchase order.

3. The PO created will contain the GTIN for each line item being purchased. Global Location Numbers (GLNs) should be included in the PO to identify the following:
a. GLN for the party submitting the order (i.e. healthcare provider)
b. GLN for the Ship To location for where the order is to be delivered
c. GLN for the receiving party of the PO (i.e. vendor)
d. GLN for the Bill To location to identify the billing party

4. The PO is sent to the vendor. The healthcare provider can send the Purchase Order in several ways:

**Good Practice**
- Healthcare provider generates a manual purchase order (e.g. fax, email, vendor website) and sends it to the vendor. Healthcare provider manually validates accuracy of purchase order including GLN, GTIN and related product attributes including vendor catalogue number, product description, unit of measure, order quantity, and pricing.

**Better Practice**
- Healthcare provider generates a standardized order using Electronic Data Interchange (EDI 850 Purchase Order) transaction or EDI 852 Product Activity Data transaction from their MMIS and sends it to the vendor. Healthcare provider validates accuracy of the order including GLN, GTIN and related product attributes including vendor catalogue number, product description, unit of measure, order quantity, and pricing. Healthcare providers will need to invest in technology and resources or partner with a solution provider to develop this capability if not already implemented. For more information on EDI standards in healthcare, visit [https://gs1ca.org/gs1ca-components/documents/Healthcare-Suppy-Chain-Guidelines-6020-2012.pdf](https://gs1ca.org/gs1ca-components/documents/Healthcare-Suppy-Chain-Guidelines-6020-2012.pdf).

**Best Practice**
- To support the perfect order management concept, healthcare providers must maintain ongoing accuracy of GLN, GTIN, product attributes, and other related product information such as pricing in the item master. The recommended best practice for maintaining item master information for medical devices is using the Global Data Synchronization Network (GDSN) or Electronic Data Interchange (EDI 832 Catalogue). For guidance on maintaining item master information, refer to section 6.3.1 Preparing to Receive GTINs and GLNs in the Contract Management and Item Master. Healthcare providers will need to invest in technology and resources or partner with a solution provider to develop this capability if not already implemented. For information on GDSN standards in healthcare, visit [https://gs1ca.org/healthcare/gdsn/](https://gs1ca.org/healthcare/gdsn/). For more information on EDI standards in healthcare, visit [https://gs1ca.org/healthcare/standards-implementation/](https://gs1ca.org/healthcare/standards-implementation/).

5. The vendor receives and process the order. The vendor’s system process processes the order containing GTINs, associated product attributes and GLNs and identifies any discrepancies that may exist and follows up with the healthcare provider to resolve.

6. The vendor replies to the Healthcare Provider with a purchase order confirmation, often called the Purchase Order Acknowledgment (EDI 855 POA) transaction. The POA uses the GLN to accurately identify the vendor and the healthcare provider. The GTINs are used in the POA to identify the line items.

- This confirmation supports identification of discrepancies in the PO such as pricing, unit of measure, vendor catalog number, etc.
- As a best practice, the POA will be sent using the EDI 855 POA transaction and will identify discrepancies in the order such as pricing or incorrect GTIN or GLN (i.e. incorrect or missing identifiers). For information on the EDI 855 POA standards in healthcare, visit [https://gs1ca.org/gs1ca-components/documents/Healthcare-Suppy-Chain-Guidelines-6020-2012.pdf](https://gs1ca.org/gs1ca-components/documents/Healthcare-Suppy-Chain-Guidelines-6020-2012.pdf).

7. Healthcare Provider receives and reviews the POA and corrects any discrepancies (if any) on the order using the GTIN to identify the product. It is important that the healthcare provider
resolves any discrepancies identified in core product data (e.g. GTIN, unit of measure, pricing) by updating the item master. This will ensure accuracy for future orders.

- Estimated time of delivery if provided in the EDI 855 POA will be entered in the system to support tracking by healthcare providers.

8. The vendor identifies the product to be picked using the GTIN. The vendor may use their own GLN (not listed on the order) to identify the internal location (e.g. shelf or bin) where the product is stored.

9. The vendor packs the items ensuring the barcode on the cases or pallets represent the correct GTIN for the packaging hierarchy. The vendor also ensures a GS1 barcode is used and the barcode is created based on GS1 standards. The vendor needs to ensure the barcode is readable by a scanner. The shipment must be identified with a Serial Shipping Container Code (SSCC), then the items can be shipped to the Healthcare Provider. For more information about barcode scan verification, visit https://gs1ca.org/barcode-scan-verification/.

10. The vendor sends a shipment notification to the Healthcare Provider. If a shipment notification is sent, it should contain the SSCC of the shipment, the GLN to correctly identify the trading partners and ship to location, and the GTINs to identify products being shipped. The Healthcare Provider uses the information in the shipment notification to prepare for receiving deliveries.

**Good Practice**
- Vendor submits a manual shipment notification (e.g. fax, email) to the healthcare provider. Provider prepares to receive products.

**Better Practice**
- Vendor generates a standardized EDI Advance Ship Notice (EDI 856 ASN) transaction and sends to the healthcare provider. Healthcare provider receives the ASN and prepares to receive products. The ASN information is stored in the healthcare provider’s system to manage receiving of products and for later use in the 3-way match business process. Healthcare providers will need to invest in technology and resources or partner with a solution provider to develop this capability if not already implemented. For more information on EDI standards in healthcare, visit https://gs1ca.org/gs1ca-components/documents/Healthcare-Supply-Chain-Guidelines-6020-2012.pdf.
- The healthcare provider will need to conduct regular audits to ensure accuracy of the ASN to physical receipt of goods.

11. Healthcare provider receives the shipment.

- Orders may be received in full, or partially received if all items requested were not available at the time of order.
- Partially received orders are noted in the system and the backorders are followed up until resolved.

12. The received order is organized, re-packaged if applicable, and delivered as requested. Receipt of goods is captured in the system leveraging the GTIN to identify the correct item.

13. The vendor creates and submits the invoice. The invoice contains the GTIN for each item and the GLN to identify the ‘Bill To’ and ‘Remit To’ locations.

**Good Practice**
- Vendor submits a manual invoice (e.g. fax, email, mail) to the healthcare provider.

**Better Practice**
- Vendor generates a standardized invoice using Electronic Data Interchange (EDI 810 Invoice) transaction and sends it to the healthcare provider. For more information on EDI standards in healthcare, visit https://gs1ca.org/gs1ca-components/documents/Healthcare-Supply-Chain-Guidelines-6020-2012.pdf.

14. The healthcare provider receives the invoice, reviews for accuracy, and remits payment to the vendor based on the healthcare providers Standard Operating Procedures (SOP).

**Good Practice**
- Healthcare provider manually validates accuracy of invoice to the purchase order and the shipment against the vendor catalogue number, GLN, GTIN and associated product attributes including the unit of measure, order quantity, and pricing. Healthcare provider issues a manual payment (i.e. cheque) to the vendor once the shipment has been received in full.

**Better Practice**
- Healthcare provider validates accuracy of invoice to the purchase order and the shipment notification (if received) against the vendor catalogue number, GLN, GTIN and associated product attributes including the unit of measure, order quantity, and pricing.
- Healthcare provider sends payment by Electronic Funds Transfer (EFT) from their system once the shipment has been received in full. Additionally, the provider will automatically provide Electronic Payment Remittance information (EDI 820 Payment Order/Remittance Advice) to the vendor. Providers will need to invest in technology and resources or partner with a solution provider to develop this capability if not already implemented. For more information on EDI standards in healthcare, visit https://gs1ca.org/healthcare/standards-implementatthps://gs1ca.org/gs1ca-components/documents/Healthcare-Supply-Chain-Guidelines-6020-2012.pdf.

**Best Practice**
- Evaluated Receipt Settlement (ERS) process where the healthcare provider automatically authorizes payment for a product by comparing the what was ordered in the EDI Purchase Order (EDI 850 PO) transaction to what was received in the EDI Advance Ship Notice (EDI 856 ASN) transaction. This process is most effective where trusted business relationships have been established. ERS is considered a best practice across other sectors but is not widely used in the healthcare sector at this time.

15. Healthcare provider closes the order.

**8.4 Implementation Benefits**

Benefits of implementation of GS1 global standards in Order Management business process:
- GTINs standardize product identification for the entire ‘procure to pay’ business process within the supply chain.
- GLNs standardize location and trading partner identification for the entire ‘procure to pay’ process within the supply chain.
- GTINs captured in the order management process enable downstream product identification thus increasing patient safety and enabling traceability and recall.
- Leveraging the GTIN as a global standardized product identifier streamlines spend, cost, and quality outcome analytics.
- Advance Shipment Notification (EDI 856 ASN) transaction enables barcode scanning and automation of the receiving process.
- Use of Electronic Data Interchange (EDI) transactions reduces manual data entry errors throughout the order management process.
- Use of GS1 Standards in the order management business process reduces order cycle time and lead times.
- Electronic Funds Transfer (EFT) and payment remittance enable timely payment allowing healthcare providers to take advantage of early payment discounts while reducing cheque handling costs.
- Use of GS1 standards in EDI improves visibility of consigned products and increases financial control for consignment inventory.
- Clinical staff will spend more time with patients as they will spend less time on manual requisition and purchase orders.

For more information, visit [Safer, More Efficient Care Starts with a Simple Scan](#).

### 8.5 Standards in Order Management Capability Assessment

Healthcare Providers can use the following self-assessment to determine their state of readiness to use global standards in the Order Management business process. Indicate Y (yes) or N (no) for each capability to assess your organizational readiness for using global standards in this business process. Where a gap is identified in your assessment, contact GS1 Canada by emailing healthcare@gs1ca.org to review your business processes, explore options on how you can address the gap, and advance standards implementation efforts.

**Legend:**

MR – Minimum Requirement
LP – Leading Practice

<table>
<thead>
<tr>
<th>Order Management Capability Assessment</th>
<th>Y/N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Internal systems are capable of processing 14-digit GTINs for product packaging hierarchies.</td>
<td>MR</td>
</tr>
<tr>
<td>2. Internal systems are capable of processing 13-digit GLNs for locations.</td>
<td>MR</td>
</tr>
<tr>
<td>3. Internal systems are interoperable and can exchange of GTINs and GLNs with other hospital systems Examples: Materials Management Information System (MMIS), Business Intelligence (BI).</td>
<td>LP</td>
</tr>
<tr>
<td>4. GTINs and GLNs are used in Electronic Data Interchange (EDI) transactions with all trading partners.</td>
<td>MR</td>
</tr>
<tr>
<td>5. Healthcare provider is using EDI X12 version 4010 to exchange commercial documents</td>
<td>MR</td>
</tr>
<tr>
<td>6. Healthcare provider is using the latest EDI version EDI X12 version 6020 to exchange commercial documents</td>
<td>LP</td>
</tr>
<tr>
<td>7. Organization’s Standard Operating Procedures (SOP) contain guidance for using GTIN and GLN in EDI. SOPs are reviewed and updated annually.</td>
<td>LP</td>
</tr>
<tr>
<td>8. Healthcare provider includes review of GS1 standards requirements in vendor meetings and scorecards.</td>
<td>LP</td>
</tr>
</tbody>
</table>

*Processing refers to input, store, display and export of GTIN and/or GLN.*
Appendix A – Standards Resources

- Getting Started with GTINs and Barcodes
- GS1 Healthcare GTIN Allocation Rules
- GTIN Non-Reuse Guidance
- Barcode Standards
- The 10-step guide for healthcare providers to implement GS1 standards
- GS1 General Specifications
- GS1 Canada GDSN
- GS1 DataMatrix Introduction and Technical Overview
- Getting Started with GLNs
- GLN Allocation Rules
- Healthcare Implementation Guidelines for Electronic Data Interchange (EDI)
- Barcode Scanning Equipment Selection Criteria
- The Value of Trusted Product Data
- Cooperating Standards in Healthcare
- GS1 Healthcare Strategy 2018-2022
- Solution Partners: Key Actors for Patient Safety
- Discussion guide for GS1 members for communication with Solution Partners
- Q&A for Solution Partners regarding GS1 Standards implementation
- Global Standards Technical Language to support Contract Management - Email request to healthcare@gs1ca.org
- GDSN Healthcare Use Cases Guideline
- Healthcare Product Description Implementation Guidelines
- Use of GS1 2D / Matrix Data Carriers in Healthcare
- GS1 Clinical Patient Pathway Document
- GS1 Clinical Patient Pathway Video
# Appendix B – Common Canadian Medical Device GDSN Attributes

<table>
<thead>
<tr>
<th>Common Canadian Attribute Name</th>
<th>Global Healthcare Use cases</th>
<th>GDSN Attributes Mapping (GDSN XML)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Additional Product Identification</td>
<td>Sourcing/Tendering; Contracting; Procurement; Order &amp; Invoice Reconciliation; Reimbursement; Logistics; Distribution; Unique Device Identifier (UDI); Medicine Dispensing &amp; Safety</td>
<td>CatalogueItemNotification/CatalogueItem/tradeItem/additionalTradeItemIdentification</td>
</tr>
<tr>
<td>2. Base Unit</td>
<td>Sourcing/Tendering; Contracting; Procurement</td>
<td>CatalogueItemNotification/CatalogueItem/tradeItem/isTradeItemABaseUnit</td>
</tr>
<tr>
<td>3. Brand Name - English</td>
<td>Sourcing/Tendering; Contracting; Procurement; Unique Device Identifier (UDI); Medicine Dispensing &amp; Safety</td>
<td>tradeItemDescriptionModule/tradeItemDescriptionInformation/brandNameInformation/brandName</td>
</tr>
<tr>
<td>4. Brand Name - French</td>
<td>Sourcing/Tendering; Contracting; Procurement; Unique Device Identifier (UDI); Medicine Dispensing &amp; Safety</td>
<td>tradeItemDescriptionModule/tradeItemDescriptionInformation/brandNameInformation/languageSpecificBrandName/@languageCode</td>
</tr>
<tr>
<td>5. Brand Owner GLN</td>
<td>Sourcing/Tendering; Contracting; Procurement; Order &amp; Invoice Reconciliation; Reimbursement; Logistics; Distribution; Unique Device Identifier (UDI)</td>
<td>CatalogueItemNotification/CatalogueItem/tradeItem/brandOwner/gln</td>
</tr>
<tr>
<td>6. Brand Owner Name</td>
<td>Sourcing/Tendering; Contracting; Procurement; Order &amp; Invoice Reconciliation; Reimbursement; Logistics; Distribution; Unique Device Identifier (UDI)</td>
<td>CatalogueItemNotification/CatalogueItem/tradeItem/brandOwner/partyName</td>
</tr>
<tr>
<td>7. Cancel Date</td>
<td>Sourcing/Tendering; Contracting; Procurement</td>
<td>CatalogueItemNotification/CatalogueItem/tradeItem/tradeItemSynchronisationDates/cancelledDateTime</td>
</tr>
<tr>
<td>9. Consumer Unit</td>
<td>Unique Device Identifier (UDI)</td>
<td>CatalogueItemNotification/CatalogueItem/tradeItem/isTradeItemAConsumerUnit</td>
</tr>
<tr>
<td>10. Discontinue Date</td>
<td>Sourcing/Tendering; Contracting; Procurement</td>
<td>CatalogueItemNotification/CatalogueItem/tradeItem/tradeItemSynchronisationDates/discontinuedDateTime</td>
</tr>
<tr>
<td>11. Drug and Health Product</td>
<td>Medicine Dispensing &amp; Safety</td>
<td>CatalogueItemNotification/CatalogueItem/tradeItem/additionalTradeItemIdentification/brandNameInformation/brandName</td>
</tr>
<tr>
<td>Common Canadian Attribute Name</td>
<td>Global Healthcare Use cases</td>
<td>GDSN Attributes Mapping (GDSN XML)</td>
</tr>
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<tr>
<td>Number</td>
<td></td>
<td>m/additionalTradeItemIdentification/@additionalTradeItemIdentificationTypeCode</td>
</tr>
<tr>
<td>12. Drug and Health Product Number Type</td>
<td>Medicine Dispensing &amp; Safety</td>
<td>CatalogueItemNotification/CatalogueItem/tradeItem/additionalTradeItemIdentification/@additionalTradeItemIdentificationTypeCode</td>
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<tr>
<td>13. Effective Date</td>
<td>Sourcing/Tendering; Contracting; Procurement</td>
<td>CatalogueItemNotification/CatalogueItem/tradeItemSynchronisationDates/effectiveDateTime</td>
</tr>
<tr>
<td>14. Global Product Classification Code (GPC)</td>
<td>Sourcing/Tendering; Contracting; Procurement; Reimbursement; Unique Device Identifier (UDI)</td>
<td>CatalogueItemNotification/CatalogueItem/tradeItem/gdsnTradeItemClassification/gpcCategoryCode</td>
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<tr>
<td>15. Gross Weight</td>
<td>Logistics; Distribution; Unique Device Identifier (UDI)</td>
<td>tradeItemMeasurementsModule/tradeItemMeasurements/tradeItemWeight/grossWeight</td>
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<td>16. Gross Weight UOM</td>
<td>Logistics; Distribution; Unique Device Identifier (UDI)</td>
<td>tradeItemMeasurementsModule/tradeItemMeasurements/tradeItemWeight/grossWeight/@measurementUnitCode</td>
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<tr>
<td>17. GTIN (Global Trade Item Number)</td>
<td>Sourcing/Tendering; Contracting; Procurement; Order &amp; Invoice Reconciliation; Reimbursement; Logistics; Distribution; Unique Device Identifier (UDI); Medicine Dispensing &amp; Safety</td>
<td>tradeItemDataCarrierAndIdentificationModule/gs1TradeItemIdentificationKey/gs1TradeItemIdentificationKeyValue</td>
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<td>19. Height</td>
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<td>20. Height UOM</td>
<td>Logistics; Distribution; Unique Device Identifier (UDI)</td>
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<td>21. Invoice Unit</td>
<td>Order &amp; Invoice Reconciliation</td>
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<td>22. Length</td>
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<td>23. Length UOM</td>
<td>Logistics; Distribution; Unique Device Identifier (UDI)</td>
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<td>24. Manufacturer Company Name</td>
<td>Unique Device Identifier (UDI); Medicine Dispensing &amp; Safety; Product Recall; Traceability</td>
<td>catalogueItemNotification/catalogueItem/tradeItem/manufacturerOfTradeItem/partyName</td>
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<td>25. Manufacturer GLN/DUNS+4</td>
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<td>26. Marked with Lot Number</td>
<td>Sourcing/Tendering; Contracting; Procurement</td>
<td>packagingMarkingModule/packagingMarking/hasBatchNumber</td>
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<td>27. Marking -</td>
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<td>packagingMarkingModule/packagingMarking/pack</td>
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<td>Common Canadian Attribute Name</td>
<td>Global Healthcare Use cases</td>
<td>GDSN Attributes Mapping (GDSN XML)</td>
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<td>-----------------------------</td>
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<tr>
<td>Production Date</td>
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<td>agingDate/tradeItemDateOnPackagingTypeCode</td>
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<td>28. Medical Device Class</td>
<td>Unique Device Identifier (UDI)</td>
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<td>29. Medical Device License Number (MDL)</td>
<td>Unique Device Identifier (UDI)</td>
<td>CatalogueItemNotification/CatalogueItem/tradeItem/additionalTradeItemIdentification/additionalTradeItemIdentification/@additionalTradeItemIdentificationTypeCode</td>
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<td>30. Net Content</td>
<td>Sourcing/Tendering; Contracting; Procurement; Order &amp; Invoice Reconciliation; Reimbursement; Logistics; Distribution; Medicine Dispensing &amp; Safety</td>
<td>tradeItemMeasurementsModule/tradeItemMeasurements/netContent</td>
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<td>31. Net Content UOM</td>
<td>Sourcing/Tendering; Contracting; Procurement; Order &amp; Invoice Reconciliation; Reimbursement; Logistics; Distribution; Medicine Dispensing &amp; Safety</td>
<td>tradeItemMeasurementsModule/tradeItemMeasurements/netContent/@measurementUnitCode</td>
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<td>32. Orderable Unit</td>
<td>Sourcing/Tendering; Contracting; Procurement; Order &amp; Invoice Reconciliation; Reimbursement; Logistics; Distribution</td>
<td>CatalogueItemNotification/CatalogueItem/tradeItem/isTradeItemAnOrderableUnit</td>
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<td>33. Package Marked Returnable</td>
<td>Sourcing/Tendering; Contracting; Procurement; Logistics; Distribution</td>
<td>packagingMarkingModule/packagingMarking/isPackagingMarkedReturnable</td>
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<td>34. Packing Group TDG</td>
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<td>transportationHazardousClassificationModule/transportationClassification/regulatedTransportationMode/hazardousInformationHeader/hazardousInformationDetail/dangerousGoodsPackingGroup</td>
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<td>35. Product Contains Latex</td>
<td>Sourcing/Tendering; Contracting; Procurement; Unique Device Identifier (UDI); Medicine Dispensing &amp; Safety</td>
<td>healthcareItemInformationModule/healthcareItemInformation/doesTradeItemContainLatex</td>
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<td>36. Product Type</td>
<td>Sourcing/Tendering; Contracting; Procurement; Order &amp; Invoice Reconciliation; Reimbursement; Logistics; Medicine Dispensing &amp; Safety</td>
<td>CatalogueItemNotification/CatalogueItem/tradeItem/tradeItemUnitDescriptorCode</td>
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<td>37. Quantity</td>
<td>Sourcing/Tendering; Contracting; Procurement; Order &amp; Invoice Reconciliation; Reimbursement;</td>
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<td>Common Canadian Attribute Name</td>
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<td>GDSN Attributes Mapping (GDSN XML)</td>
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<td>38. Replaces GTIN</td>
<td>Sourcing/Tendering; Contracting; Procurement</td>
<td>catalogueItemNotification/catalogueItem/tradeItem/referencedTradeItem/gtin</td>
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<td>catalogueItemNotification/catalogueItem/tradeItem/referencedTradeItemTypeCode</td>
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<tr>
<td>39. Shipping Unit</td>
<td>Sourcing/Tendering; Contracting; Procurement; Order &amp; Invoice Reconciliation; Logistics; Distribution</td>
<td>CatalogueItemNotification/CatalogueItem/tradeItem/isTradeItemADespatchUnit</td>
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<tr>
<td>40. Short Description - English</td>
<td>Sourcing/Tendering; Contracting; Procurement; Order &amp; Invoice Reconciliation; Reimbursement; Logistics; Distribution; Unique Device Identifier (UDI); Medicine Dispensing &amp; Safety</td>
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<td>tradeItemDescriptionModule/tradeItemDescriptionInformation/descriptionShort/@languageCode</td>
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<td>41. Short Description - French</td>
<td>Sourcing/Tendering; Contracting; Procurement; Order &amp; Invoice Reconciliation; Reimbursement; Logistics; Distribution; Unique Device Identifier (UDI); Medicine Dispensing &amp; Safety</td>
<td>tradeItemDescriptionModule/tradeItemDescriptionInformation/brandNameInformation/subBrand</td>
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<td>42. Sub Brand Name - English</td>
<td>Sourcing/Tendering; Contracting; Procurement; Unique Device Identifier (UDI); Medicine Dispensing &amp; Safety</td>
<td>tradeItemDescriptionModule/tradeItemDescriptionInformation/brandNameInformation/languageSpecificSubbrandName</td>
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<tr>
<td>43. Sub Brand Name - French</td>
<td>Sourcing/Tendering; Contracting; Procurement; Unique Device Identifier (UDI); Medicine Dispensing &amp; Safety</td>
<td>tradeItemDescriptionModule/tradeItemDescriptionInformation/brandNameInformation/languageSpecificSubbrandName/@languageCode</td>
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<td>44. The United Nations Standard Products and Services Code (UNSPSC)</td>
<td>Sourcing/Tendering; Contracting; Procurement</td>
<td>CatalogueItemNotification/CatalogueItem/gdnTradeItemClassification/additionalTradeItemClassification/value/additionalTradeItemClassificationCodeValue</td>
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<td>CatalogueItemNotification/CatalogueItem/gdnTradeItemClassification/additionalTradeItemClassificationSystemCode</td>
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<tr>
<td>45. Width</td>
<td>Logistics; Distribution; Unique Device Identifier (UDI)</td>
<td>tradeItemMeasurementsModule/tradeItemMeasurements/width</td>
</tr>
<tr>
<td>46. Width UOM</td>
<td>Logistics; Distribution; Unique Device Identifier (UDI)</td>
<td>tradeItemMeasurementsModule/tradeItemMeasurements/width/@measurementUnitCode</td>
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<tr>
<td>47. Additional Product Identification</td>
<td>Sourcing/Tendering; Contracting; Procurement; Order &amp; Invoice Reconciliation; Reimbursement; Logistics; Distribution; Unique</td>
<td>CatalogueItemNotification/CatalogueItem/gdnTradeItemClassification/additionalTradeItemIdentification</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CatalogueItemNotification/CatalogueItem/gdnTradeItemClassification/additionalTradeItemIdentification/@additionalTradeItemIdentificationTypeCode</td>
</tr>
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</tr>
<tr>
<td></td>
<td>Device Identifier (UDI); Medicine Dispensing &amp; Safety</td>
<td></td>
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<tr>
<td>48. Base Unit</td>
<td>Sourcing/Tendering; Contracting; Procurement</td>
<td>CatalogueItemNotification/CatalogueItem/tradeItem/isTradeItemABaseUnit</td>
</tr>
</tbody>
</table>
# Appendix C - Glossary

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application Identifier (AI)</td>
<td>The field of two or more characters at the beginning of a GS1 Element String that uniquely defines its format and meaning.</td>
</tr>
<tr>
<td>Brand Owner</td>
<td>The organization that owns the specifications of a trade item, regardless of where and by whom it is manufactured. The brand owner is normally responsible for the management of the Global Trade Item Number (GTIN).</td>
</tr>
<tr>
<td>Buyer</td>
<td>An individual that is authorized to make purchases on behalf of their organization.</td>
</tr>
<tr>
<td>Catalog Item</td>
<td>A product or service recorded in an organization’s item master file.</td>
</tr>
<tr>
<td>Classification</td>
<td>A form of cataloguing, or identifying, products and can be defined as a process for grouping products into categories based on an understanding of the essential properties and relationships between them.</td>
</tr>
<tr>
<td>Contract Management</td>
<td>It refers to the procedures and policies used in an organization to manage contract agreements between trading partners. It includes, but is not limited to, contract negotiation, execution, compliance, performance, maintenance and expiration of contracts.</td>
</tr>
<tr>
<td>Contract Management Team</td>
<td>Term used to generically identify the staff responsible for management, maintenance, compliance and reporting functions of contracts within an organization.</td>
</tr>
<tr>
<td>Distributor</td>
<td>An entity who supplies/resells goods to other organizations.</td>
</tr>
<tr>
<td>Electronic Data Interchange (EDI)</td>
<td>Electronic Data Interchange (EDI) is a method of computer-to-computer transmission that can be used for a range of business processes.</td>
</tr>
<tr>
<td>Enterprise Resource Planning (ERP) System</td>
<td>An ERP (Enterprise Resource Planning) system, refers to the internal system an organization is using to manage purchasing, inventory, marketing, finance and other business-related areas.</td>
</tr>
<tr>
<td>Global Data Synchronization Network (GDSN)</td>
<td>The GS1 Global Data Synchronization Network® (GDSN®) is a network of interoperable data pools enabling collaborating users to securely synchronize master data based on GS1 standards.</td>
</tr>
<tr>
<td>Global Location Number (GLN)</td>
<td>The GS1 identification key used to identify locations (physical, operational or legal) in the supply chain.</td>
</tr>
<tr>
<td>Global Medical Device Nomenclature (GMDN)</td>
<td>A medical device nomenclature used to generically identify all medical device products used in the diagnosis, prevention, monitoring, treatment or alleviation of disease or injury in humans. GMDN consists of Term Names, Code List, and Generic Definitions and is owned by the GMDN Agency.</td>
</tr>
<tr>
<td>Global Trade Item Number (GTIN)</td>
<td>The GS1 identification key used to identify trade items. The key comprises a GS1 Company Prefix, an item reference and check digit.</td>
</tr>
<tr>
<td>Group Purchasing Organization (GPO)</td>
<td>A group purchasing organization (GPO) is an entity that is created to leverage the purchasing power of a group of members.</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
</tr>
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</tbody>
</table>
| GS1 System                                | The specifications, standards, and guidelines administered by GS1.  

Healthcare Provider                      | The term “Healthcare Provider” refers to Shared Service Organizations (SSOs), Group Purchasing Organizations (GPOs), Health Authorities (HAs) or hospitals in this document. |
| Item                                      | A record in the Item Master. Each item record uniquely describes the item or service and defines how it will be handled throughout the supply chain. Item attributes may include, but are not limited to description, model number, vendor item number, price, tax status, latex content, unit of measure, weight, dimensions, GTIN, UNSPSC etc. |
| Item Master                               | It is a collection of records that identifies the items and services available for use within the organization. Often referred to as the “catalog” of items. |
| Item Master Management Team               | A group of people identified to work together in setting up and maintaining an organization’s repository of products or services. |
| Manufacturer                              | The entity that makes, fabricates or produces goods.  

Material Management Information System (MMIS) | A software suite packaged as an integrated offering to meet materials management, human-resources and back-office needs. Healthcare providers have implemented these systems to automate or facilitate functions such as purchasing, accounting, inventory management, and patient supply charges. |
| Medical Device                            | Any instrument, apparatus, implement, machine, appliance, implant, in vitro reagent or calibrator, software, material or other similar or related article, intended by the manufacturer to be used, alone or in combination, for human beings for any medical purpose |
| Member Hospital or Member Customer        | Any entity that partners with a Shared Service Organization (SSO) or Group Purchasing (GPO) for goods or services. An example of a customer is Emergency Medical Services (EMS). |
| New Item Request Form                     | An internal form used by a hospital or Shared Service Organization to request a new product or service. |
| Nomenclature                              | A system with rules to name individual items. A nomenclature system is used to provide common descriptions to products which have the same performance characteristics and thereby can be substituted for each another. |
| Non-Catalog Item                          | A product or service NOT recorded in the organization’s item master file.  

Pharmaceutical Product                    | A pharmaceutical is any kind of drug used for medicinal purposes, like cough syrup or sleeping pills. |
<p>| Purchasing Department                     | A team responsible for procuring goods and services on behalf of the organization. |
| Requisition                               | A formal request for the purchase of a good or service. |
| Requisitioner                             | A user of the healthcare supplier system that is authorized to submit formal requests on behalf of their business unit. Typical requests are for the purchase of goods and services, addition of new item records to the Item Master, and others as defined by each Healthcare Supplier. |</p>
<table>
<thead>
<tr>
<th>Term</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Service Relation Instance Number (SRIN)</td>
<td>An attribute to the GSRN which allows to distinguish different encounters during a service relationship (e.g. patient visit to a hospital or clinic).</td>
</tr>
<tr>
<td>Shared Service Organization (SSO)</td>
<td>An SSO is an entity that is resourced by its members. It is created to leverage the purchasing power of a group of members and may provide other services.</td>
</tr>
<tr>
<td>Trade Item</td>
<td>Any item (product or service) upon which there is a need to retrieve predefined information and that may be priced, or ordered, or invoiced at any point in any supply chain</td>
</tr>
<tr>
<td>Trading Partner</td>
<td>A generic term used in this document to indicate the parties engaged in the business process.</td>
</tr>
<tr>
<td>United Nations Standard Products and Services Classification (UNSPSC)</td>
<td>A publicly available classification system used across multiple sectors to group or categorize products and services. UNSPSC is administered by GS1 US.</td>
</tr>
</tbody>
</table>
| Vendor                                    | A vendor is a trading partner in the supply chain who sells goods and services. In this document, the term Vendor is the organization selling to the Healthcare Provider.  
*Note: Vendor is interchangeable with Supplier or Seller.* |

Visit [GS1 Glossary](https://www.gs1.org) to access a central repository of common terms used worldwide.