



GS1 STANDARDS USED

GS1 Identification

Global Location Number (GLN)
Global Trade Item Number® (GTIN®)

GS1 Barcodes

GS1® & GS1 US™ Solutions

GLN Registry for Healthcare®
Global Data Synchronization Network® (GDSN®)
1SYNC™ (GDSN-certified Data Pool)

MEMBER PROFILES



Ascension Health is the nation's largest Catholic and nonprofit health system. Ascension Health serves patients through a network of hospitals and health facilities providing acute care services, long-term care, community health services, psychiatric, rehabilitation and residential care. Ascension employs over 106,000 associates in facilities across 20 states and the District of Columbia.



BD is a leading global medical technology company that develops, manufactures and sells medical devices, instrument systems and reagents. The Company is dedicated to improving people's health throughout the world. BD is focused on improving drug delivery, enhancing the quality and speed of diagnosing infectious diseases & cancers, and advancing research, discovery, and production of new drugs and vaccines. BD's capabilities are instrumental in combating many of the world's most pressing diseases. Founded in 1897 & headquartered in Franklin Lakes, New Jersey, BD employs over 28,000 people in approximately 50 countries around the world.



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A GS1 Healthcare US™ Success Story



Seton Family of Hospitals and BD Use GS1 Standards and Processes to Reduce EDI Errors in Pursuit of "Perfect Orders"

Synopsis

On September 15, 2008, Seton Family of Hospitals (member of Ascension Health) placed an order for BD™ Sharps Collectors. However, this was no ordinary order. This was the first documented transaction between a major healthcare system and supplier using an integrated set of GS1 standards and GS1 US standards-based solutions:

- Identification of Seton Family of Hospitals locations: [GS1 GLN](#)
- Identification of BD products: [GS1 GTIN](#)
- Storage and listing of Seton GLN: [GLN Registry for Healthcare](#)
- Storage, validation and sharing of product information: [GS1 GDSN](#)

This first transaction, the joint effort of Ascension Health supply chain, Seton Family of Hospitals and BD to implement GS1 standards to improve transactional effectiveness, validated that GS1 standards could be used today in healthcare transactions. The lessons learned will guide future system requirements and outline the steps required to implement GS1 standards successfully throughout healthcare. The conversion to GS1 standards in Electronic Data Interchange (EDI) transactions signified a milestone for Ascension Health and BD in their pursuit of the "Perfect Order." Ascension Health, BD and other market leaders who have studied the use of standards are confident that full adoption of GS1 standards will enhance supply chain efficiency by reducing rework, boosting productivity and supporting patient safety initiatives.

The Challenge

Ascension Health manages pricing & product information for 445 locations. Accurate product information in systems and transactions is essential in order to maintain sufficient, reliable supply levels for "just in time" inventory management. In past transactions between Seton Family of Hospitals and BD, both parties were identified with proprietary numbers: Seton Family of Hospitals with a BD-assigned SAP "Ship to" number and BD with a Seton-assigned item master "Supplier" number. For products, Seton Family of Hospitals was creating new proprietary product numbers for BD products using ID numbers from GPOs, distributors or BD catalogs and price lists. Assigning proprietary numbers that do not translate across the supply chain is a common practice of the healthcare industry. In addition, current data cleansing processes require significant resources. Incorrect data can create a variety of errors that result in costly rework. Ascension Health recognized that using GS1 data standards would improve supply chain efficiency.

"The Perfect Order"

The Ascension Health/BD story is not unique. All too often, suppliers and providers spend precious time and resources fixing imperfect orders (e.g., pricing issues, unit of measure mistakes, shipping errors, etc.). As a result,

Ascension Health's goal is to create a "perfect order" to ensure that the needed products are available for patients and staff – every time, all of the time.

Chris McCloud
Database Administrator, Ascension Health

BD already has experience using GTINs and GLNs with our retail customers, and we want to move toward using standards with all of our healthcare customers, distributors and GPOs. Complete adoption of data standards in healthcare will dramatically improve the industry's efficiency levels & reduce rework.

Dennis Black
Director of E-Business, BD

BENEFITS

- No Unit of Measure EDI Errors
- No Confusion or Errors on Ship-To Locations
- Perfect Alignment on Contract Eligibility
- No Synchronization "Work Around" Processes
- One Source for Product Data
- Clarity on Manufacturer ID
- Provides Accurate Product Descriptions (expirations, clinical attributes, etc.)

LESSONS LEARNED

- Complete assignment of GTINs is essential at all traded packaging levels
- Associated GTIN Master Data must be accurate (unit of measure, shippable unit, etc.)
- A "common product attribute language" (GDSN) is necessary
- Brochures & other collateral materials need to reflect GTINs
- ERP must either recognize GTIN or an internal table must be maintained
- System should be configured to recognize either GTIN or product number during conversion period (must have sunset date)
- Use of GTIN in the 850 Purchase Order needs to carry through subsequent EDI transactions (855 Order Acknowledgement, 810 Invoice, 856 Advanced Shipment Notification, 820 Electronic Funds Transfer, and 867 Rebate/Sales Tracings)

The GS1 standards-based transaction that paved the way for Perfect Orders and a more cost-efficient supply chain: Purchase Order for BD medical products, including Sharps Collectors



there is growing interest in the concept of the *Perfect Order*. Pioneered by the Strategic Marketplace Initiative (SMI), a *Perfect Order* is defined as "a purchase order processed electronically from order to payment without human intervention, which is delivered to the correct location, on time, undamaged, at the correct price, in the desired quantity, on the first attempt."¹ The *Perfect Order* concept maximizes efficiencies by eliminating errors and properly utilizing technology.

Both Ascension Health and BD believed that alignment of master data was necessary for accurate transactions and was a pre-requisite for *Perfect Orders*. They also wanted a solution that could be shared and utilized with other trading partners. Therefore, Ascension Health and BD set out to implement GS1 standards to ensure alignment and accuracy; specifically, GTIN (*product ID*), GLN (*location ID*) and GDSN (*product attribute data*).

Goals of the Pre-Production Test

In order to maximize their efforts, Ascension Health & BD conducted a pre-production test using one Ascension Health location (Seton Family of Hospitals) and all BD products. In addition, they defined clear goals.

- (1) Standardize location & product identification processes using GLNs & GTINs.
- (2) Determine the process changes and system modifications necessary to transact between trading partners using GLNs and GTINs. The GLN Registry for Healthcare and GDSN are to be used as the systems for submitting and synchronizing location identification, product identification and product attribute data.
- (3) Validate location identification reconciliation process, GLN numbering needs, maintenance requirements and the process for sharing GLNs.
- (4) Validate GDSN as the singular tool and repository necessary for product identification and product attributes for transactions.²

Implementation

Both BD and Ascension Health wanted to solve existing EDI errors caused by the lack of use of data standards. BD was already using GLNs and GTINs with some of its retail customers, but no healthcare customers.

Ascension Health knew of the benefits of data standards through participation in the Healthcare Supply Chain Standards Coalition (HSCSC) and SMI, but had not begun implementation with a supplier.

The two agreed to work together to use an integrated set of GS1 standards and GS1 US standards-based solutions. BD provided Ascension Health with subject matter expertise and guidance on usage of GTIN and GLN in EDI transactions, EDI mapping development, and help validating that all of the necessary GTINs had been allocated. Ascension Health began assigning GLNs, integrating GTINs into their internal systems and preparing to use the GDSN.

For party/location identification, Ascension Health assigned GLNs to Ascension Health facilities, including the Seton Family of Hospitals, and registered those GLNs in the GLN Registry for Healthcare. The MMIS customer account number was then populated with the appropriate GLN instead of BD's "Ship to" identification number. For product identification, Seton Family of Hospitals replaced and/or added the GTIN in its item master system and on Electronic Data Interchange (EDI) purchase orders. Once the GS1 identifiers were in place, it was time to address the item master information. Ascension Health analyzed transactional and ERP systems to map necessary changes, made system modifications, and tested the system using both GLNs and GTINs in EDI transactions. Finally, Seton Family of Hospitals conducted a product purchase for BD Sharps Collectors using a GS1 standards-based 850 Purchase Order EDI transaction. **The result: the right product arrived at the right location in the right quantity – a step in eliminating EDI errors in pursuit of the Perfect Order.**

Next Steps

Based on the success of that transaction, BD and Seton Family of Hospitals now use GLNs and GTINs for all EDI transactions. Ascension Health has begun using a GDSN-certified Data Pool, 1SYNC, to clean its item master by synchronizing with BD product master data via the GDSN in a production system. Once Ascension Health's item master is cleansed, it will synchronize the system's product master with all its hospitals. Ascension Health will then be ready to bring GS1 standards-based purchase transactions into production with BD and other suppliers across their entire system. BD is interested in the use of GS1 data standards globally.

¹ Dennis P. Orthman. *Perfect Order – The New Supply Chain Metric*. Supply Chain Strategies & Solutions, Sept/Oct 2008. Association for Healthcare Resources & Materials Management (AHRMM).

² GDSN was not used for pricing functions. Ascension Health populated item master pricing fields using other sources.

Questions? Contact GS1 Healthcare US at gs1healthcareus@g1us.org or visit www.gs1us.org/healthcare