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COMMUNITY**



AHRMM
Advancing Health Care through
Supply Chain Excellence

Transactional Efficiency Best Practices Work Group Report

[AHRMM.ORG/LUC](https://www.ahrmm.org/luc)

TRANSACTIONAL EFFICIENCY BEST PRACTICES

OVERVIEW:

There are multiple ways to improve transactional efficiencies within the health care supply chain, but data synchronization is foundational to all. One of the critical ways to improve efficiency and reduce errors is to use the device identifier component of the unique device identifier (UDI-DI) and Location Identifiers (e.g., GLN or HIN) in electronic data interchange (EDI) transactions. Using data standards creates a common language and eliminates the errors and the added time required to align internal manufacturer and provider product numbers, units of measure and delivery locations. There are multiple ways to synchronize data between trading partners. Some use information directly from the FDA's Global Unique Device Identifier Database (GUDID) using AccessGUDID. Others use third-party data cleansing services who take the information from GUDID and augment it. This document will focus on a direct synchronization process between a supplier and a health care provider.

BENEFITS:

The inclusion of the UDI provides a common datalink between disparate supplier and provider information systems. Specific examples include:

- Reduces rework in the ordering, shipping, receiving, invoicing, and cash application processes.
- Eliminates the need to create manufacturer specific unit of measure translation tables.
- Eliminates the need to maintain crosswalks of manufacturer, distributor, and provider internal product numbers.
- Using UDI-DI in the Purchase Order streamlines the shipping, receiving and put away process by enabling barcode scanning and supporting automation. Scanning also creates an audit trail.
- Housing the UDI-DI in the item master and using it in transaction sets simplifies the recall process and allows providers to locate recalled product more efficiently.

DEFINITIONS:

Advanced Ship Notice (ASN): Shipper originated data containing complete information about the shipment and its contents. The EDI Transaction set is referred to as an 856.

Bill-To: Mailing address where paper invoices are sent. This can include third party accounts payable operations. Preferred option is to use the 810 EDI transaction set in place of paper invoices.

EDI: Electronic Data Interchange is the exchange of business information using a standardized format; a process that allows the supplier to electronically send information to the receiver of the product or service as opposed to using a less efficient method such as e-mail, fax or paper.

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Invoice: A supplier-initiated document detailing the services performed or the product delivered. It provides the means by which the receiver of the service or product will generate a remittance. The EDI Transaction set is referred to as an 810.

Location Identifier: Standard way of identifying locations. They are either allocated from a GS1 Company Prefix to form a GS1 Global Location Number (GLN) or issued by HIBCC using a Health Industry Number (HIN). Location Identifiers are allocated to legal entities, physical locations, and functional departments.

Payer: Party responsible for initiating and tracking remittances. In the case of a vendor collection call, the vendor will reach out to the payer party.

Price/Sales Catalog File: A commercial document issued by the seller that contains pricing and product information such as UDI-DI, unit of measure, packaging string, contract start and end date, and other information agreed upon by trading partners. This document provides a means for health care providers to synchronize their item master data with supplier data. The EDI Transaction set is referred to as an 832.

Purchase Order (PO): A commercial document and first official offer issued by a buyer to a seller, indicating types, quantities, and agreed prices for products or services. The EDI Transaction set is referred to as an 850.

Purchase Order Acknowledgement (POA): A commercial document issued by the seller to the buyer confirming the receipt of a purchase order to buy goods or services. The POA can be either fully acknowledged with no deviations or partially acknowledged. It allows both parties to agree upon what the buyer is requesting and what the seller is committing to provide prior to shipping and billing. The EDI Transaction set is referred to as an 855.

Remit-To: The physical mailing address location to which a payment associated to an invoice should be sent. The preferred option is to use a Location Identifier.

Ship-To: The ship-to location as noted on the originating purchase order. Ideally, these should be represented as the minimum necessary address required by the delivering carrier. The preferred option is to use a Location Identifier.

Ship From: The warehouse/distribution physical mailing address location from which the ordered goods were sent/shipped out to the recipient. The preferred option is to use a Location Identifier.

Sold-To: Legal entity creating the Purchase Order. This is the corporate entity named in the Master Contract.

Unique Device Identifier (UDI-DI): A manufacturer-provided value issued by GS1, HIBCC or ICCBBA. A unique code is assigned for each unit of measure. In the United States, the FDA requires manufacturers to register the UDI-DI in the GUDID. GS1 refers to the value as a Global Trade Identification Number (GTIN), the HIBCC value is called a HIBC UDI-DI and the ICCBBA value is called the Processor Product Identification Code (PPIC).

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INITIAL ITEM MASTER SYNCHRONIZATION:

To maximize transactional efficiency and support data analytics, it is critical that provider's item master data and manufacturer's data is synchronized and that a process be established to maintain that synchronization. A lack of synchronization reduces supply chain efficiency by causing re-work and delays and can also impact patient care. Product data within the provider's Enterprise Resource Planning (ERP) system frequently integrates with downstream systems such as Electronic Health Records (EHR), inventory management systems, analytics platforms and revenue systems. Inaccurate data can impact the ability to scan at the point of care thereby increasing the risk an expired or recalled product could be used and that patient documentation could be inaccurate.

The best practice for synchronizing supplier and provider data is via the 832 EDI transaction that contains the UDI-DI. If an 832 cannot be exchanged, a secondary best practice is as follows:

Step 1

Provider provides to Supplier for each item purchased from that supplier:

- Unique Device Identifier (UDI-DI) for each unit of measure (if available.)
- Manufacturer Catalog Number
- Distributor Catalog Number
- Manufacturer/Brand Owner
- Brand Name
- Product Description
- Net Content and Unit of Measure
- Version Model Number (if available.)

Step 2

Supplier reviews and provides to Provider:

- Corrections to Provider-supplied data
- Additions to Provider-supplied data (e.g., UDI-DI, supplier catalog number or description)
- Product status (active, obsolete, etc.)

Step 3

- Provider updates their item master with the supplier provided data.

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Step 4

- Trading partners determine a process and schedule to maintain synchronization.
- Once providers have the UDI-DI in their system, they can access the FDA’s Global UDI Database (GUDID) via AccessGUDID to update their systems as well. The URL is <http://accessgudid.nlm.nih.gov>.

ESTABLISHING EDI TRANSACTION SETS USING DATA STANDARDS:

The first step in setting up EDI transaction sets is **synchronizing location and account information**.

Step 1:

For a proper alignment of each level of account by vendor code(s), the health care provider creates a listing of all entities, and their corresponding location identifier (GLN or HIN). The provider’s internal location or entity number may be shown if useful for the provider. For the Ship-to locations, provide only those used on purchase orders.

Step 2:

The supplier then compares the provider’s information to their customer account information, and they resolve any differences. The supplier then eliminates duplications and obsolete locations from their system and adds any missing locations. This is also an opportunity to make sure provider locations are rostered correctly and the parent/child hierarchy is accurate.

Role	Location Identifier: GLN, HIN	Provider internal location or entity number, if applicable	Manufacturer’s account number	Location name	Location address
Bill-To					
Ship-To					
Sold-To					
Remit-To					

Once the account information is synchronized, the trading partners can set up the process for **purchasing using the UDI-DI versus internal catalog or reference numbers**. This further streamlines the process and reduces errors.

Step 1:

- Confirm supplier and provider systems can transact using the UDI-DI.
- Providers should have populated their ERP systems with the UDI-DI during the item master cleansing process. If not, this must be done before they can transact using the UDI-DI.

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- Set up ERP system to populate the purchase order with the UDI-DI.

Step 2:

- Supplier and the provider confirm their EDI hierarchy is formatted properly.
- Provider and supplier set up a testing process with a limited number of items to confirm the EDI process operates as intended.

Step 3:

- Expand the process to all items purchased by the provider from that supplier.

Step 4:

- Provider and supplier develop a process to communicate UDI-DI changes and updates.

EDI TRANSACTION SET MAPS:

The transaction set maps for the purchase order (850), purchase order acknowledgement (855), advanced shipping notice (856) and invoice (810) can be found at <https://www.ahrmm.org/system/files/media/file/2022/11/Transactional-Efficiency-Mapping-Guide.xlsx>.

SUMMARY:

Data synchronization and the use of data standards in EDI transaction sets creates the foundation upon which an efficient and effective supply chain is built. The use of standards reduces errors in the purchasing, shipping, receiving and payment process. This allows stakeholders across the supply chain to eliminate manual re-work and deploy their resources on higher value activities. The use of data standards eliminates the need to maintain cross-reference tables of proprietary manufacture, distributor and provider numbers and unit of measure tables.

Including the UDI-DI in provider ERP systems allows them to share information with downstream systems such as EHR, inventory management, systems analytics platforms and revenue systems. This facilitates point of care barcode scanning, thereby improving workflow for the clinical staff and enhancing patient safety. Utilizing data standards also increases inventory management accuracy, visibility, utilization and reduces the burden of managing recalls.

Synchronizing data and using data standards in EDI transactions doesn't have to be an overwhelming process. If you can't cleanse all your data at once, start by analyzing spend data and look at those trading partners where you do a significant amount of business. Then identify willing partners that you can collaborate with on the implementation. Once a set of trading partners has successfully begun transacting with standards, each successive implementation will become easier with increasing benefits to your clinical and supply chain operations.