GHX

Driving Electronic Health Record Value with Clean Item Master Data

❯ Introduction

Healthcare organizations are allocating significant dollars, time and resources to the implementation of electronic health records (EHRs). While several studies have estimated the cost to purchase and install an EHR to be anywhere between $15,000 to $70,000 per provider, real-world implementation costs have soared into the billions.

EHRs can help drive revenue growth and improve reimbursements — demonstrating meaningful use to The Centers for Medicare and Medicaid Services (CMS) — by helping providers deliver more effective, efficient patient care. But, only with quality data feeds that can impact length-of-stay (LOS) reduction, readmission rate reduction, emergency department (ED) revenue reimbursement, ambulatory revenue reimbursement and drug cost reduction.

One of the main data sources for the EHR is the item master, which drives not only supply chain processes but also a broad range of clinical and financial functions.

While item master data integrity is critical to the successful implementation and use of an EHR, most providers struggle with inaccurate, outdated and erroneous information. Organizations that have implemented EHRs without first tackling data quality issues have found they cannot trust the outputs generated from their EHRs for activities such as evaluating the clinical effectiveness of products and securing reimbursements.

Healthcare organizations are turning a critical eye to the integrity of their item masters as they plan EHR implementations. To do so, they are executing master data management strategies designed to clean up their data and maintain it over time so that they can derive the greatest value from this significant IT investment.

❯The critical role of supply chain in EHR implementations

To achieve meaningful use of an EHR, providers must demonstrate, through a series of set objectives across various stages of meaningful use, that they are using the EHR to improve the quality, safety, transparency, efficiency and coordination of clinical care while maintaining privacy and security of patient heath information. Only then can they avoid penalties and qualify for incentive payments.

Because meaningful use is focused on patient care and data privacy, many provider organizations have assigned its attainment to clinicians and IT staff. But as providers are tasked with using EHRs in more complex ways to comply with meaningful use, the supply chain's critical role is becoming clearer.

Another regulation that demonstrates the relationship between product data and meaningful use is the U.S. FDA's Unique Device Identification (UDI) rule. It requires manufacturers of most Class I, II and III medical devices to
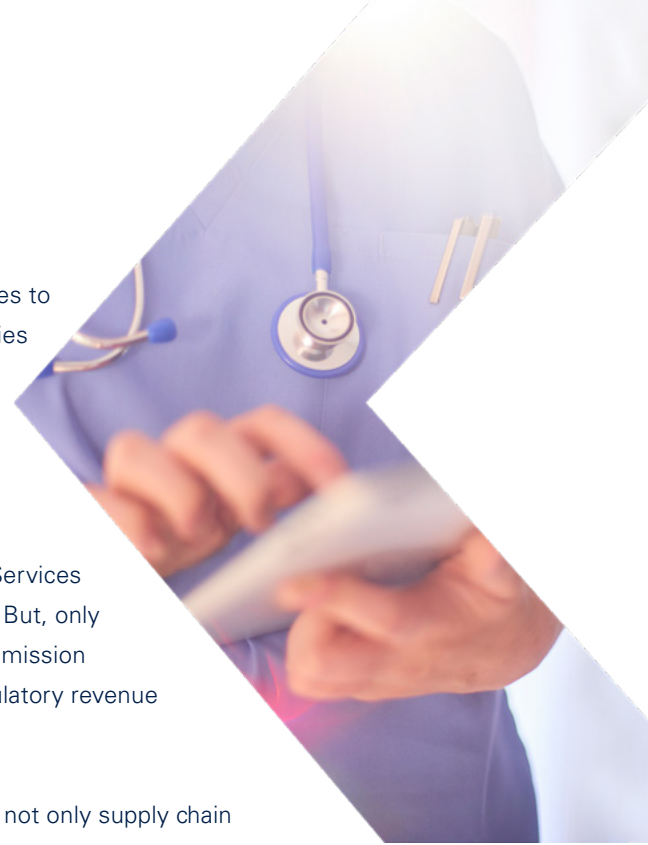
assign unique identifiers to their products and apply the UDIs in both human and machine readable formats to their products at all packaging levels. Under the rule, manufacturers must also submit data on their products to the FDA's publicly accessible Global UDI Database (GUDID). The goal is to standardize identification of medical devices through distribution and use to improve adverse event reporting and better manage device recalls.

In 2015, the Office of the National Coordinator (ONC) for Health Information Technology issued a final rule that requires the integration of UDIs into EHRs. Concurrent with this rule, the CMS announced it would link some of its Stage 3 EHR incentive payments for meaningful use to UDI integration.

As these rules demonstrate, there is growing interest in documenting accurate data on the devices used during patient care to not only meet EHR meaningful use criteria but also to comply with other healthcare reform demands, such as value based purchasing. But to do so requires healthcare organizations to have a single source of truth for product data. That's where supply chain comes in.

❯ The item master is the center of the universe

Today, supply chain departments are already capturing information on the medical-surgical products their facilities procure and storing this information in their item masters. The item master has been described as the center of a healthcare organization's universe because its content drives not only supply chain processes but a broad range of clinical and financial functions as well. It makes sense that the item master should also feed the EHR as clinicians document the products used in patient care. But using the item master to feed standardized product data to the EHR is not as simple as it seems.

In leading practice, the materials management system is the source of truth for item information feeding the EMR. An organization should take a holistic perspective on longer-term materials management system use, including changing vendors or performing updates/upgrades.

— *EMR Integration: Mitigating Supply Chain Financial Risk*, Deloitte

Bad data in, bad data out

In its Economic Outlook: 2016 C-Suite Survey, Premier reports that healthcare IT continues to dominate the majority of capital expenditures, with 70 percent of healthcare executives citing Healthcare IT & Telecommunications as a key priority area for investment.

But bad data in is bad data out. A single data error in an interconnected, electronic environment presents a risk that is magnified as the data transmits downstream to interfaced systems, warehouses and outputs. In order for provider organizations to derive any value from their EHR, it needs to be leveraging accurate data.

While the item master should be the source of truth, most item masters are filled with inaccurate, duplicate and erroneous product data. This is due to the sheer volume of data a facility must maintain and ongoing data churn. On average, changes are made each year to one-third of the 30 million plus medical-surgical products on the market in the U.S. Other contributing factors include technology limitations, discrepant data sources, lack of adoption of data standards, variation in processes and poor data governance policies.

A healthcare organization's supply chain team is ideally positioned to inform clinical and IT staff of the quality of its item master so that, together, they can make an educated decision on what steps must be taken to clean and maintain product data before it reaches the EHR and impacts downstream processes.

Standardization is far from simple

Healthcare providers now have greater access to standardized product data thanks to the FDA's UDI rule. But even with unique device identifiers in the GUDID, organizations can't easily integrate data into various systems, such as EHR, enterprise resource planning (ERP), materials management information system (MMIS), billing and product registries for clinical research.

Because supply chain departments own product data, they are uniquely positioned to lead UDI adoption efforts. Furthermore, most supply chain teams are already using integrated systems to capture product data for a variety of purposes (e.g., inventory management, billing, reimbursements, analytics) and can leverage this knowledge and experience to help their organizations access the necessary data to achieve EHR meaningful use objectives.

Many healthcare organizations are implementing product data standardization initiatives in parallel with their EHR implementations, typically with separate teams working independently, when they should be conducting these initiatives together. Having a collaborative, multidisciplinary team comprised of clinicians, IT staff, supply chain staff and other key stakeholders overseeing both of these major initiatives can help facilities get the most out of their technology, time and resource investments.

❯ Bad item master data undermines EHR success

The success of an EHR implementation has broad operational, clinical and financial impacts on provider organizations. Implementations that fail to go as planned, costing more than anticipated in time, dollars and resources, can not only disrupt clinical care and operations, but also damage an organization's credit profile.

Inaccurate and/or incomplete item master data can derail an EHR implementation, resulting in delays, strained resources and significant financial losses.

Lost revenue

Level II of the Healthcare Common Procedure Coding System (HCPCS) plays a key role in enabling an organization to be reimbursed appropriately for products used in procedures. But in many cases, products within the item master have not been assigned these codes, leaving billing departments with the challenge of determining the item types.

Assigning the wrong HCPCS codes during the billing process or failing to assign codes at all places organizations at risk for significant revenue loss. The CMS and other payers may not provide adequate reimbursement for products used in patient procedures. The time required to address coding discrepancies can also increase the number of discharged not final billed (DNFB) accounts. Because DNFB accounts have a direct correlation on days cash on hand, an increase in the volume of these accounts can impact everything from pension funding to credit rating.

Credit agencies Moody's, Standard & Poor (S&P) and Fitch are probing more deeply into hospitals' expenses, especially around capital investments and cost containment plans. A 2017 Fitch Ratings report predicted the number of hospital downgrades, which are tied to credit ratings, would exceed upgrades in the coming year (2017).

These agencies assume that investment-grade hospitals have already reduced supply and staffing budgets as much as possible. Hospital expense budgets are key to how much cash the organization will need to weather market disruptions and financial challenges. When talking about high cost expenses like EHRs, hospital executives need to assure credit agencies that they have a plan to get value from these investments.

Missed savings opportunities

Implantable device manufacturers may have service-level agreements (SLAs) with their provider customers under which the provider must submit purchase orders (POs) within 48 hours after a procedure in order to procure products at a negotiated price, such as at a certain contract tier level or other pricing discount.

Providers often miss out on these contract savings opportunities because they are unable to release a PO within the required timeframe due to inaccurate or missing product information within their item masters. They lose time while they review various charge codes to ensure they are accurate, and if they are inaccurate, search for the correct codes to fix the discrepancies. Missing the 48-hour window means unnecessarily paying higher product prices.

Clinical impacts

Dirty item master data impacts clinical care as well. If providers generate POs using incomplete or inaccurate data, they run the risk of getting the wrong products or experiencing delays in product delivery, which can disrupt patient care.

Furthermore, without accurate data on the products it is procuring and using in patient care in its EHR, a provider cannot provide the kind of reporting required under value based purchasing to demonstrate they are delivering quality care in an efficient and cost-effective manner.

❯ Driving successful EHR adoption and use with clean data

Organizations must be able to rely on the integrity of their EHR outputs regardless of their strategic goals (i.e., population health management, enabling the implementation of a patient-centered medical home or increasing patient satisfaction from operational improvements). Accurate, complete item master data helps organizations drive greater value from EHR and other systems.

Secure revenue and maintain financial standing

By assigning HCPCS codes to products within the item master, integrating item master and charge master data, and providing users with easy access to detailed product descriptions, organizations can improve accuracy in the billing process. This helps them secure adequate reimbursement from the CMS and other payers.

The HFMA describes how EHR and billing system integration helps providers avoid late charges, charge lag days and late filing of charges: "Hospital and professional billing systems integrated with an EHR can provide for automated charge capture and reduce the time and resources needed for manual charge entry, which can lead to more accurate billing and a reduction in lost charges. An EHR can also result in a reduction in charge lag days, which refers to the time it takes for charges to enter a system following the performance of a service. Because charges can be automatically triggered in an EHR system the moment a provider closes the encounter, charge lag days, as well as vendor/insurance denials associated with late filing of charges, can be significantly reduced."

Correctly coded products also help improve efficiency in the patient billing process, enabling providers to bill patients upon discharge and reduce the number of DNFB accounts. Having more cash on hand enables an organization to protect its credit rating and financial standing.

By implementing EHRs under integrated teams comprised of key stakeholders, including materials management, a 622-bed tertiary medical center reduced its miscellaneous supply charge volume by more than 70 percent.

— EMR Integration: Mitigating Supply Chain Financial Risk, Deloitte

Capitalize on savings opportunities

Having accurate and complete item master data readily available streamlines the procure-to-pay process. Providers can automate PO generation and invoice payments, and avoid manual data entry and discrepancy resolution. With greater process efficiency, providers can submit POs to their suppliers and pay them in a timely manner in order to capitalize on tier discounts and other incentives.

Drive quality patient care

Accurate data within the item master improves the accuracy and efficiency of the ordering process, allows providers to procure the right products at the right quantities, and increases the likelihood that products will be delivered to the right locations at the right times. This ultimately improves patient care by helping ensure clinicians have the products they need when they need them.

Accurate product data fed from the item master to the EHR also enables organizations to pursue many of the tenets of healthcare reform. By having an accurate and complete record of which products were used on which patients, providers can evaluate the role of specific products in patient care and use this information to increase care quality and improve outcomes.

> Any change to the materials management system, once integrated, impacts the EMR and must be planned for to prevent unintended clinical and financial consequences.
>
> — *EMR Integration: Mitigating Supply Chain Financial Risk,* Deloitte

❯ Master data management roadmap for a successful EHR implementation

1. Collaborate

The supply chain team owns the product data that drive some of the most critical EHR outputs, including information to achieve meaningful use objectives, evaluate the role products play in patient outcomes, better manage adverse events and recalls, and deliver value-based care. As hospitals and other healthcare facilities plan their EHR implementation, supply chain professionals must be involved from the outset to ensure ERP and EHR systems are properly integrated, and complete and accurate product data is feeding the EHR. This includes not only item master data, but also contract data and PO history, which healthcare organizations can leverage to reduce one-time supplies and associated charge reconciliation, improve supply tracking and perform total case costing.

2. Cleanse

Bad data in is bad data out. The only way organizations can trust the outputs generated from their EHR is to ensure the product data feeding the system is accurate, complete and up-to-date. Before embarking on an EHR implementation, the supply chain team, working in conjunction with clinical and IT staff, must establish a master data management strategy through which product data is cleansed and corrected.

3. Enrich

Supplies are the second largest and fastest growing expense for providers, and healthcare organizations are increasingly focused on the role products play in delivering high quality, cost-effective patient care and driving revenue. This can only be done when products are correctly coded and categorized. To achieve this, organizations must enrich item master data by assigning HCPCS codes to the products they procure. Only then can they accurately and efficiently improve product categorization and reimbursement accuracy.

In order to show meaningful use of their EHRs, and qualify for some CMS Stage 3 EHR incentive payments, healthcare organizations must also enrich product data with their medical device suppliers' UDIs.

Forward thinking healthcare organizations are now using a solution that leverages their item master, PO history and contract data to feed into their EHRs product information that is most valuable for clinical, financial and operational performance, including HCPCS codes and UDIs.

4. Integrate

Tight integration between EHR and ERP systems is critical to success: it facilitates a cleaner data build for both systems; streamlines processes for both the clinical and business sides of an organization; offers improved operational metrics that drive better, more strategic decisions; and provides improved performance for cycles (i.e., requisition-to-payment, claim-to-payment), resulting in better cash flow and reduced costs.

5. Automate

Even when organizations cleanse and enrich their item master data at the onset of an EHR implementation, data accuracy immediately begins to decline as suppliers make changes to their products, such as item numbers and units of measure (UOM). With the volume of data churn in the healthcare industry, even the most well-staffed and equipped supply chain teams cannot keep up with the changes. Recognizing the value of the item master and its impact on clinical and business operations, a growing number of facilities are implementing virtual item masters that continually monitor the item master for changes and updates, and then systematically correct product data inaccuracies, removing duplicates and infilling missing information.

About GHX

Global Healthcare Exchange, LLC (GHX) drives costs out of healthcare with cloud-based supply chain management technology and services to help enable better patient care and savings by maximizing automation, efficiency, and accuracy of business processes. GHX offers healthcare providers and suppliers an open and neutral electronic trading exchange that delivers procurement and accounts payable automation, contract and inventory management, vendor credentialing and management, business intelligence, payment management and other supply chain-related tools and services. For more information, visit www.ghx.com and The Healthcare Hub.