

# Driving Inefficiencies and Costs Out of the Implant Case-to-Cash Process



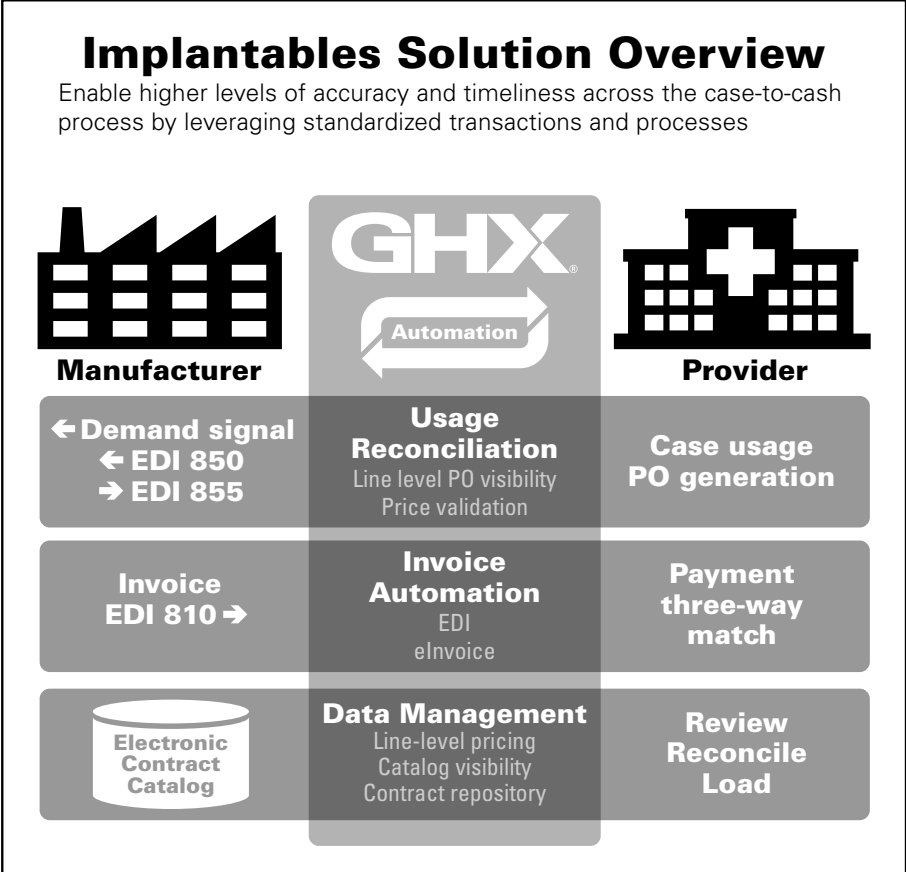
**GHX**<sup>®</sup>

# Driving Inefficiencies and Costs Out of the Implant Case-to-Cash Process

Today's management of clinical, operational and financial processes around implantable devices generates significant costs and waste for healthcare providers and manufacturers alike. Inefficient manual business processes and lost, wasted and expired products result in an estimated \$5 billion in annual loss in this market segment.

The current process for managing implants (e.g. hips, knees, cardiac stents) from the point of case scheduling to payment processing typically involves 15 manual, error prone steps. As the demand for implantable devices increases in the years ahead – at an estimated 7 to 9 percent annually – so will the costs associated with managing this complex, disjointed and wasteful process.

GHX is committed to driving savings within the implantable device supply chain (IDSC) by maximizing automation, efficiency and accuracy of business processes. Our longer-term vision continues to be delivering solutions that enable visibility and alignment between manufacturers and providers. Through the pilots of our Case Xpert solution, GHX learned that achieving the longer-term vision of process integration and visibility requires the adoption of standardized transactions and processes as a first step. As a result, GHX is focused on building the foundation and scale of the implant usage capture and purchase order (PO) automation processes to enable accuracy, efficiency and timeliness throughout the case-to-cash process.



## The Implant Case-to-Cash Process Today

When an implant case is performed and completed in the operating room (OR) today, the manufacturer's sales representative (rep) and the provider facility's circulating nurse will separately and manually document the products used in the case.

### Provider Process

The circulating nurse captures what was consumed during the procedure within the electronic health record (EHR) system (also known as EMR). This product information or "usage" is then provided to supply chain/ materials management (typically in the form of a sticker sheet or PDF) for manual entry into the materials management information system (MMIS). Typically, there is little-to-no integration and nearly all of the processes and data synchronization

between the hospital's EHR and MMIS are manual. This lack of integration and interoperability is one of the primary problems that contribute to today's highly manual, disconnected and inefficient implantable device supply chain.

In a study of GHX providers, the time to process an automated, accurate order was 12 minutes versus 84 minutes to process a discrepant, manual order. Time translates to cost for both providers and manufacturers.

The usage information that is entered into the MMIS is used in the generation of a PO to the manufacturer. Typically the provider transmits the PO to the manufacturer via email/phone, and/or the manufacturer rep will contact the circulating nurse and ask for the PO number. Upon receipt of the PO, the manufacturer uses the rep's sales order to generate an invoice for the provider, which is manually delivered.

### Supplier/Manufacturer Process

The manufacturer rep will then enter this information into a sales order within the implant manufacturer's sales system. If the rep manages his/her inventory as trunk stock, the sales order is fed into the manufacturer's enterprise resource planning (ERP) system where it generates a trunk stock replenishment order that is sent immediately to the rep. For those manufacturers that require trays/kits to be returned to a replenishment location, there is an additional validation step to verify what was consumed in a tray/kit matches the sales order before the replenishment is executed.

Manufacturers have shared with GHX that over 50 percent of the time the PO entered by the provider does not match the sales order in the manufacturer's system because neither party took the steps to reconcile the information. Because the invoice is generated from the sales order, the PO and invoice do not match up. The inconsistencies between the PO and invoice may include: incorrect prices, incorrect part numbers, missing/excess part numbers, and a mismatch between the order of line items on the PO and sales order. The

A completely manual case-to-cash process requires 25-50 percent more labor for a manufacturer to complete compared with an automated and electronic process. Manufacturers that conduct this process manually have, on average, 30 percent higher DSOs compared with those leveraging automation.

provider and manufacturer's respective accounts payable and accounts receivable departments must engage in a time-consuming, manually intensive reconciliation process to agree on which products were used in the case, typically weeks or months after the case was

completed. It is not uncommon for the implant case-to-cash process – from the time the case was performed to the time the provider pays the manufacturer - to be greater than 60 days.

### The Devil is in the Details

Provider systems require a three-way match among the PO, receipt and invoice before a manufacturer payment can be generated. These documents must match down to line-level detail, including the order in which the product line items are listed on the PO. Any mismatch results in some level of manual reconciliation and ultimately delayed payment.

Complicating matters is the wide variation among provider processes and capabilities. Some providers have the processes and technology to easily track line-level detail of what was used in a case. In other situations, complex or capitated agreements have contributed to some providers only capturing header level information and not fully capturing all parts and pieces that were consumed in a case. Still others have not employed technology or processes that are optimized for this activity and can only store usage data on manual forms filed in the OR where the information is later keyed into a PO and receipt at the header level.

For those providers that currently do not provide line-level detail on a PO and receipt, the manual reconciliation process with the invoice is an uphill battle. Because, on average, it takes a provider two weeks or more following an implant case to submit the PO to the manufacturer, providers are in the position

of trying to determine which products were used in a case that occurred days and even weeks prior. This significantly delays invoice payments. Today, implant manufacturers report over 45 days sales outstanding (DSO), with some waiting 60 to 80 days for payments, depending upon the product category.

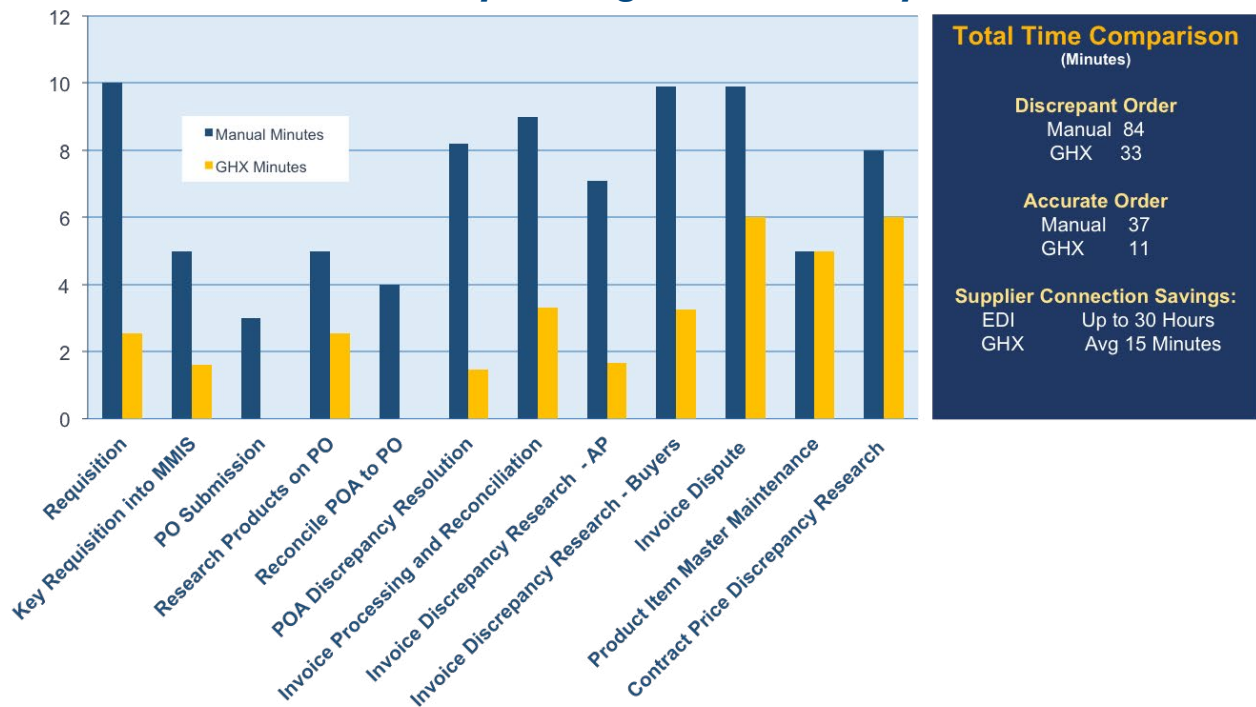
While implantable devices can account for up to 80 percent of the total cost of a procedure, non-file off-contract spending in the OR is common. This is particularly true for implant cases, where sales reps routinely introduce new products directly to providers outside of facilities' standard product review/acquisition processes. In order for a provider to confirm it is paying negotiated prices for implantable items on contract and conducting valid analytics on its OR spend, it must have processes to capture accurate and detailed information on the products it is purchasing. Without detailed data on the products used in implant cases, providers have little visibility into one of their greatest areas of spend.

The lack of line-level detail and the failure to reconcile the PO with the sales order contribute to revenue leakage on the manufacturer side as well. In a manual environment, there are instances where a sales rep fails to record each and every item used in a case. As a result, there are hundreds of thousands of items used in implant cases each year for which manufacturers never invoice providers.

## Automating the Implant Case-to-Cash Process

Just as GHX has automated the medical-surgical supply chain to improve efficiencies and drive out costs for the healthcare community, the company is now automating the implant case-to-cash process by leveraging its electronic trading exchange and related solutions. Given the level of discrepancies are higher with implantable device POs and invoices compared with those for medical-surgical products, providers and manufacturers are likely to achieve significant

# Order Management Savings Manual vs. GHX Electronic Industry Average\* (Labor Only)



Note: Correcting discrepancies at the PO to POA stage will eliminate most Invoice discrepancies. Time savings based on total GHX solution.

\*Industry Average - Weighted average time from GHX study of 120 hospitals, validated by Forrester Consulting

time and cost savings through the use of standardized transactions and processes.

### Usage Reconciliation

GHX is working with the provider community to begin automating implantable purchase orders, the next biggest area of supply chain spend. Following the completion of an implant case, GHX has a variety of capabilities that enable a provider to send an electronic PO (EDI 850), at line-level detail, to the implant manufacturer via the GHX Exchange. To facilitate this, GHX has defined additional data fields in its Implant Order specification, including case ID, sales order ID (if available), and product identifiers, including lot numbers and serial numbers. By having access to the PO at the line-level and the required additional data fields, the manufacturer will be able to reconcile and match the provider PO to the sales order captured by the sales rep. Manufacturers can address and resolve any discrepancies or omissions on the PO prior to the creation of an invoice.

Provider Benefits	Supplier Benefits
Ability to track and audit case usage at a line-item level electronically	Faster time to obtain complete PO details
Reduction in time to resolve pricing discrepancies	Elimination of manual POs and lack of line-level detail
Ability to reconcile discrepancies prior to invoicing	Reduction in time to resolve pricing discrepancies
	Ability to reconcile discrepancies prior to invoicing

### Invoice Automation

After PO and sales order reconciliation has occurred, GHX enables an implant manufacturer to send an electronic invoice (EDI 810) to a provider via the GHX Exchange. Those providers that can accept automated electronic invoices will receive them via this manner while those unable to accept them will be able to access invoices as PDF files via the GHX eInvoicing portal. Both manufacturer accounts receivable and provider accounts payable departments will have access to a shared portal solution to collaboratively manage any issues.

Once there is a three-way match among the PO, receipt and invoice in the provider's system, the invoice can be immediately processed, resulting in automatic payment approval from the provider.

Provider Benefits	Supplier Benefits
Reduction in administration time to reconcile discrepancies on invoices	Elimination of the cost of manual paper invoices
Automatic approval of payment following three-way match	Improved DSO
	Ability to negotiate more favorable payment terms

### Data Management

In order for a provider and manufacturer to generate electronic documentation containing line-level detail on the products used in an implant case (PO, sales order, receipt, invoice), and validate that the provider is paying the negotiated price for items on contract, they must have the ability to share accurate and timely product and contract data.

GHX is working on a process to synchronize implant contract and catalog updates between manufacturers and providers. Once this solution is available, manufacturers will have the ability to send automated updates as needed to their provider trading partners. Providers will have the ability to access these updates to enable the provider users (requisitioners and buyers) with access to the correct price at the point of requisition.

Provider Benefits	Supplier Benefits
Ability to verify contract pricing at the time of PO creation	Reduction in pricing discrepancies

## The Bigger Picture: EHRs and Healthcare Reform

The move to EHRs by provider organizations is helping to generate the line-level detail required to improve the accuracy and efficiency of the implant case-to-cash process. Most EHR systems require providers to capture detailed information on the products used in procedures so it can be stored in the patients' health records. This information today is transmitted via manual methods from the EHR to the provider's MMIS for use in the procure-to-pay process. As stated previously, there is little to no integration or data synchronization from the EHR to the MMIS.

Furthermore, providers need line-level detail on the products used in implant procedures to guide their value-based purchasing initiatives. Supplies are the second largest area of spend for providers, behind only labor, so provider organizations are particularly interested in determining the

role specific products play in patient outcomes.

With access to detailed information on the products used in patient care, a provider can conduct outcomes analyses to determine which products delivered the

greatest value – high quality, cost-effective care with the fewest complications – shortest hospital stays and lowest readmission rates. This information can be leveraged to drive standardization in clinical practice and purchasing.

## Conclusion

Inefficiencies and inaccuracies in the implantable device supply chain – from case scheduling through to payment – drive up costs for healthcare providers and implant manufacturers alike, with both parties sharing the more than \$5 billion in waste

During pilots of GHX solutions, those providers and manufacturers leveraging automation decreased non-item file lines by 71 percent and invoice discrepancies by 30 percent.

generated annually in this U.S. market segment alone.

GHX maintains its vision to deliver end-to-end supply chain solutions for managing implantable medical devices. This cannot be done alone by GHX, but requires the community to evolve and

move in concert to effectively address and change the implantable device supply chain. Through focus on adoption of the three areas of transaction automation (usage reconciliation, invoice automation, and data management) across healthcare providers and manufacturers, the industry can realize the benefits of a more streamlined and efficient case-to-cash process. This is a foundational step to achieving a fully automated and electronic implantable device supply chain and one that will enable the healthcare industry to drive out significant costs and achieve valuable savings in the near term.