CASE STUDY

Sharp Memorial Hospital Reduces Cath Lab Supply Waste by 83%

SMH leaders share three key learnings to help hospitals and healthcare systems lower inventory levels, reduce product expiration and improve point of care (POC) utilization

Sharp HealthCare is San Diego's most comprehensive health care delivery system, recognized for clinical excellence in cardiac, cancer, multi-organ transplantation, orthopedics, rehabilitation, behavioral health, women's health, home health, and hospice services. The health system serves San Diego County with four acute-care hospitals, three specialty hospitals, three affiliated medical groups, a health plan, and more than 19,000 employees.

EXECUTIVE SUMMARY
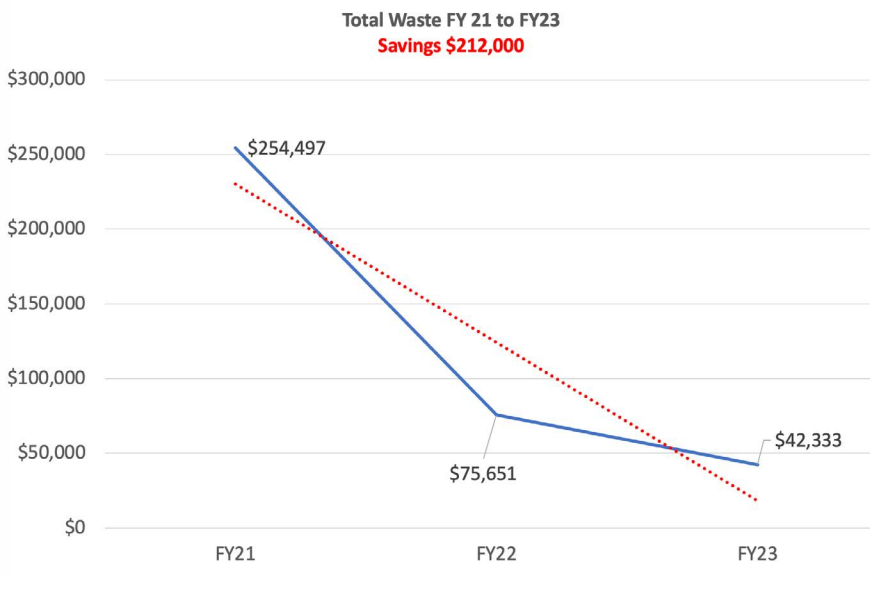
Sharp Memorial Hospital's (SMH) cardiac catheterization lab was experiencing a lost of over $20,000 each month, the highest in the all the system's cath labs. SHM leaders were determined to identify the root problems and correct them. It was only after they got QSight®, Owens & Minor's perpetual inventory management solution, that they had the visibility into the data and could begin to get their questions answered.

When SMH's leadership dug into the data, they found three key areas of waste: excessive PAR levels, product expiry, and items opened for a procedure but unused. While the initial goal was to reduce waste by 25%, SMH achieved a dramatic 83% reduction – saving over $211,000 over the course of 24 months.

QUICK FACTS

- ⓘ **Product:** QSight®

- ⓘ **Customer: Sharp HealthCare**

- ⓘ **Location: San Diego, CA**

- ⓘ **Reduced supply waste by over $211,000 or 83% over 24 months**

- ⓘ **Reduced waste from expiring products by over $127,000 or 78% over 24 months**

- ⓘ **Reduced waste from "open not used" products by over $86,0000 or 92% over 24 months**

By taking control over the items in their inventory, the SMH cath lab transitioned from being Sharp HealthCare's biggest source of cardiac supply waste to its greatest generator of cath lab savings. These achievements, powered by QSight, earned the SMH cath lab materials specialist team a 2023 Sharp HealthCare C.O.R.E. and Pillars of Excellence Award under the finance category.

Total Waste FY 21 to FY23
Savings $212,000

$300,000
$254,497
$250,000
$200,000
$150,000
$100,000
$75,651
$50,000
$42,333
$0
FY21   FY22   FY23

THE COSTS AND RISKS OF MANUAL SUPPLY MANAGEMENT

Prior to QSight, Donna Dasinger, Cardiac Catheterization (Cath Lab) Manager for SMH, and Colin Ramsey, Business Consultant, Cardiovascular Service Line, Sharp HealthCare, suspected that there was high levels of waste, but they didn't have the data to prove it.

The SMH Cath Lab relied on manual inventory management processes, with staff members physically counting supplies in storage areas and keying item information into spreadsheets for documentation and tracking.

"Because these methods of supply management were inefficient and inaccurate, we relied heavily on guesswork to guide our decisions," said Dasinger. "We were flying blind," said Ramsey. "People would ask if we were wasting supplies in our health system, and we could guess, but we didn't have exact numbers on how much waste there was and where it was occurring."

They were also aware that a lack of supply visibility and control posed the risk of "never events"— expired items being used in the delivery of patient care. While this had never happened at SMH, Dasinger and Ramsey were aware that the California State Department of Health had shut down a cath lab run by a different health system after finding expired products on its shelves.

"We suspected we had a lot of potential for savings, but we didn't have data to prove it."

- Donna Dasinger
Cath Lab Manager for SMH
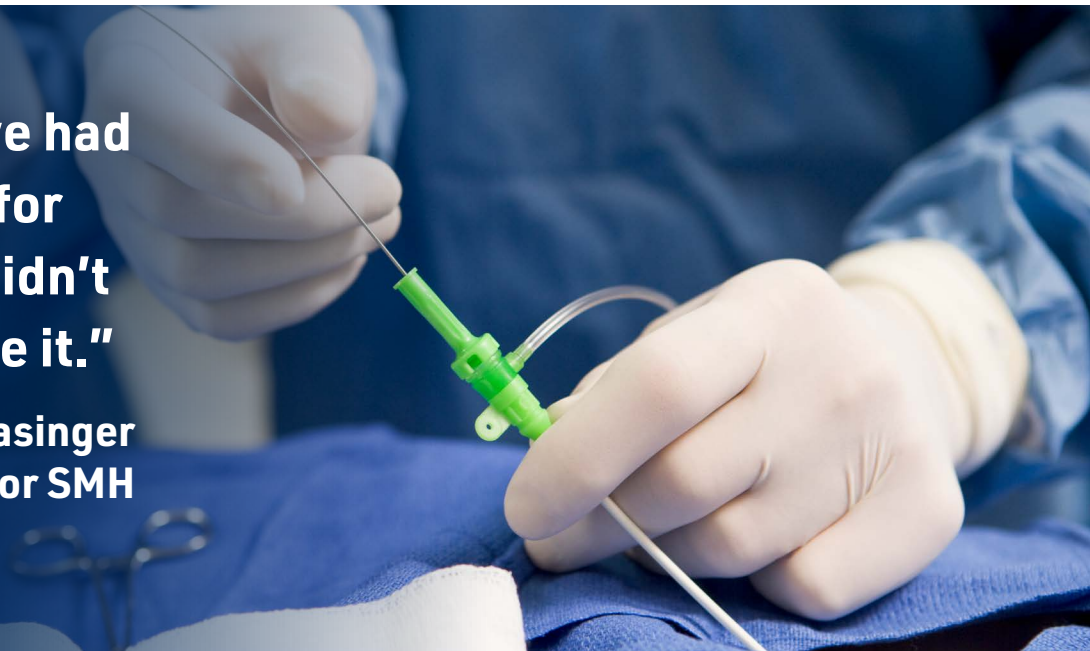
LEVERAGING QSIGHT TO TAKE CONTROL

Dasinger and Ramsey required a technology solution that would enable them to substantiate the SMH's cath lab's wasted supplies and empower them to identify and attack the root issues.

"Colin and I had been pushing for a perpetual inventory management system in the cath lab for years so we would not be reliant on manual counting and tracking," said Dasinger. "We had gone through the process of evaluating various inventory management solutions two-to-three times over the years and QSight always came out on top. However, we didn't have solid data on the dollar amount of the waste and the potential savings. This caused some skepticism among the finance team about spending money on QSight."

"I was convinced that QSight was the right solution and that we needed it to uncover the problems we knew were there," said Ramsey. "Donna and I fought for QSight, finally gaining approval to purchase it in 2021. I couldn't wait to see what we could do with it."

A DATA-DRIVEN REVELATION

When Ramsey ran his first report from QSight, documenting supply waste across all Sharp HealthCare's Cath Labs, it was an "aha moment," providing hard evidence for what he and Dasinger suspected all along– the SMH Cath Lab was an outlier in the Sharp system for excessive supply waste with an average loss of over $21,000 per month.

"When I got the first QSight report from Colin that showed the dollar value of the supplies we were wasting in our cath lab I was astounded," said Dasinger. "We were surprised that we were wasting so much money – over $30k a month sometimes."

Dasinger and her team formed a process improvement work group to address the issue. After examining data from QSight, they found the waste came from three key areas:

- Excessive PAR levels
- Product expiry
- Items opened for a procedure but unused

"The insights from QSight told us that yes, we have problems, and we needed to fix them," Dasinger added. "There was no question this was valuable information that we did not have access to before."

THE THREE KEY STEPS IN SMH CATH LAB'S WASTE REDUCTION AND SAVINGS

Step 1: Gain control over inventory

Through QSight, the SMH cath lab team automated inventory management processes and data capture to gain visibility into and control over their supply spend.

Before QSight

A SMH cath lab staff member walked around the department looking at supplies in storage areas, estimating the quantity of each item, and keyed the quantities into a spreadsheet to inform PAR levels. The highly manual process was prone to human error, resulting in excess ordering and inventory levels that were too high.

"Grocery stores have been using scanners for inventory, stocking and reordering for decades, but here we were in the cath lab with millions of dollars of supplies still doing these processes 100% manually, guessing at what we had on the shelves and what our PAR levels should be," said Dasinger. "I couldn't believe with the advanced state of technology we were still doing things that way."

With QSight

Through the user-friendly QSight dashboard, Dasinger and her team viewed real-time supply status, including items below PAR, on order, enroute, and much more. Knowing what they had in stock, they placed replenishment orders without incurring the costs and risks of excess inventory. QSight's advanced analytics and reporting enabled the cath lab team to track inventory trends over time for more accurate supply forecasting and demand planning.

"This level of inventory visibility and control was impossible before QSight," said Dasinger. "We've gone from guesswork to supply management decisions based on credible data, resulting in less inventory and more space."

PROOF POINT

"For example, I looked at a QSight report that showed we had a high number of a certain diagnostic catheter in our inventory," explained Dasinger. "They are only $7 each but I know a lot of those expire. So those analytics are telling me that we should go back and look at our PAR levels for that catheter and adjust them."
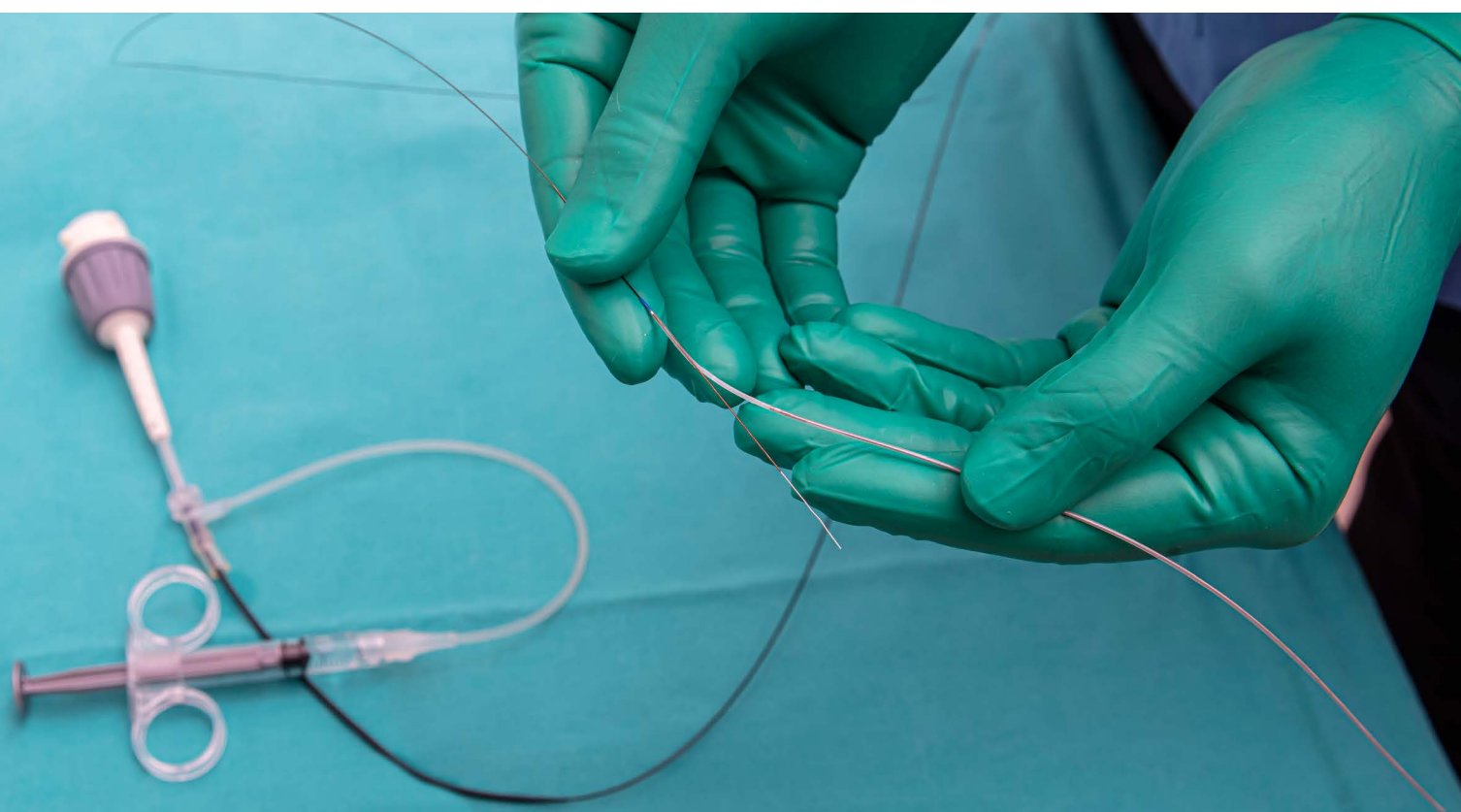
While accurate PAR levels go a long way in reducing excess inventory, the SMH cath lab team also needed a way to reduce waste resulting from products expiring. They leveraged QSight's ability to alert users to expiring product and prioritized use of items nearing expiry to avoid waste and added costs.

Before QSight

Once a month, a SMH cath lab staff member looked at each individual item in storage areas to find expired product or products nearing expiration. They then keyed the information into a spreadsheet. It was a laborious process.

Because the process was reliant on human intervention, and prone to error, product expiry was common – with items expiring out of sight in storage closets, shelves and drawers. The cath lab was losing tens of thousands of dollars each month, and running the risk that expired items would be used on patients.

"It was a crazy workflow, and we missed a lot of things," said Dasinger. "We would perform a total sweep of the entire department, thinking we pulled all the expired products and two weeks later find something that had expired years ago."

"One month we had a $25,000 item expire and the vendor refused to swap it out," recalled Ramsey. "That was a huge hit. Unless items like this are used up, we are stuck with them."

With QSight

Dasinger delegated a materials specialist to oversee expiration date management in the SMH cath labs through QSight. QSight alerted the specialist to items set to expire and she, in turn, notified the cath lab's lead nurse of the pending expiration dates.

The nurse highlighted these items each day during the cath lab's morning huddle and notified physicians of their status so they could use them in scheduled procedures.

"QSight tells us when a product is expiring at a cadence we set," Dasinger explained. "So now, once we get that notice, we can go to storage, pull the product and either see if we can use it ourselves or see if another cath lab can use it."
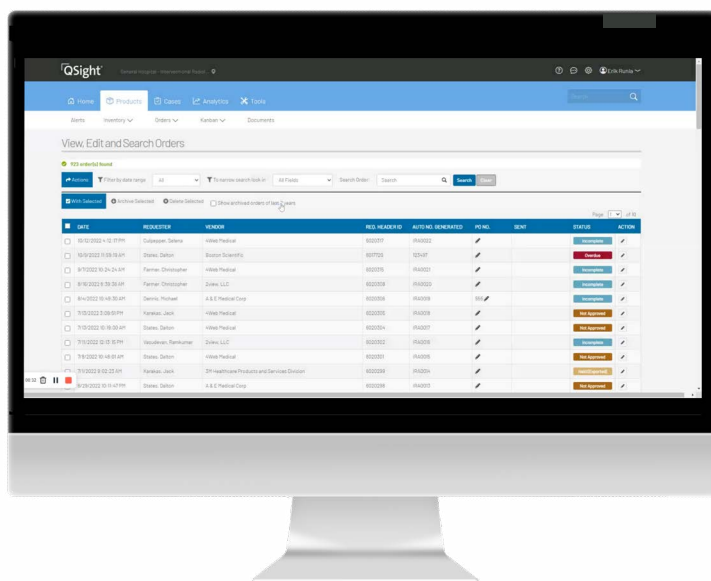
Ramsey regularly runs reports from QSight to identify product expiration trends, including items that physicians order and may neglect to use.

"We look for both high dollar items that are low use, and low dollar items with high use," Ramsey explained. "Let's say we have a $10 catheter, and we are wasting 150 each month, that's $1,500. I send reports to the materials specialists notifying them of expiring products and suggest they talk to their physicians about adjusting PAR levels to avoid excess inventory moving forward."

PROOF POINT

QSight notified the SMH cath lab team about a rarely used thrombolytic catheter in its inventory that was set to expire. The lead nurse sent an email to all the health system's IR and cath labs offering the item. The IR Lab team at Sharp Chula Vista Medical Center responded, stating how they used that item all the time and would be happy to take it.

"Another time, Chula Vista had some items set to expire so we took as many as we could from them," Dasinger added. "QSight has opened a communication channel where our facilities are all helping each other save, which was never before possible."

Another significant area of waste was products opened but unused during a procedure. Dasinger and her team leveraged QSight data to drive home to physicians how their use – or non-use – of opened products impacts financial outcomes.

Before QSight

Prior to the start of a procedure, it was common for SMH cath lab staff to open all the products the physician requested so they were ready for use on the patient. But in many cases, the physician didn't need them all or decided they needed something different.

Because these products had been opened, they could not be used in another case and were thrown away, leaving SMH to absorb the cost. For products such as intravascular ultrasound catheters, the cost of waste was substantial.

"When Colin first drilled down into the data in QSight he saw the items opened and unused and that category was huge," recalled Dasinger. "The issue was culture. The staff was just trying to be efficient by opening items because physicians don't like to wait."

With QSight

Changing physician behavior can be challenging but with QSight's timely, accurate and credible data on product usage, the SMH Cath Lab team had the evidence they needed to confidently engage cardiologists in conversations around waste.

As Dasinger explained, "Physicians are evidence based and they respond well to data. So, these analytics from QSight were instrumental in enacting change to reduce supply waste on many levels."

"QSight has given us power. Our lead nurse and materials team have the data to say to our doctors, 'You're not using this item so we should stop reordering it. I've found an alternative that we can use instead.'"

PROOF POINT

"Colin generated a report of unused, opened items by physician and when I looked at the list, I identified one physician, an outlier, who had a high rate of unused product," Dasinger explained. "When we shared this finding, it helped him realize how often he was asking for items and not using them. The data from QSight drove him to change his behavior."
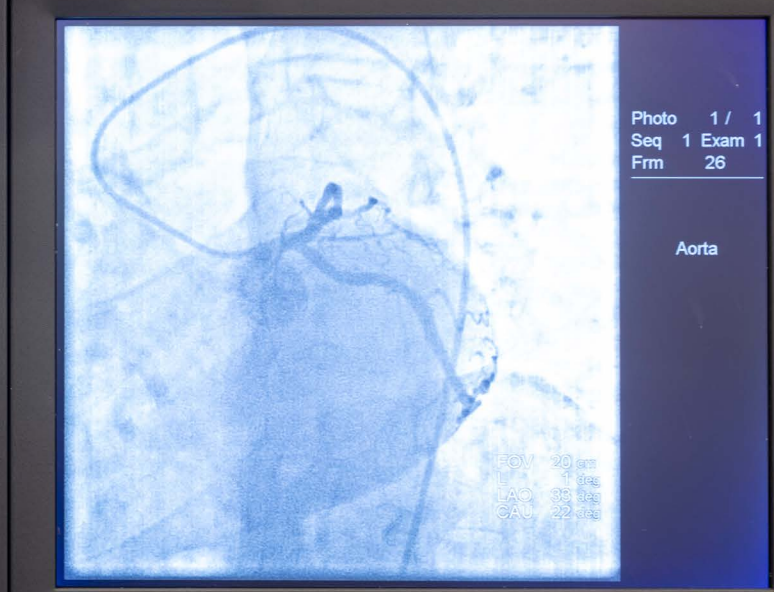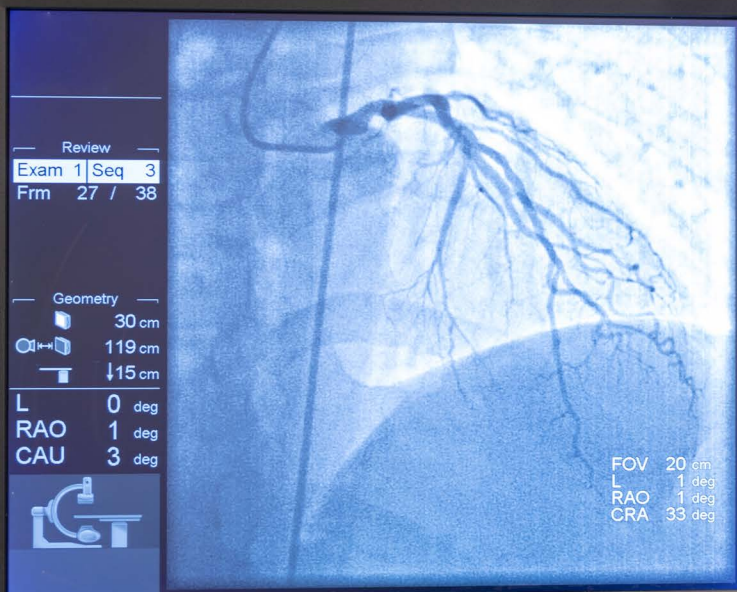
THE FOUR KEY ACHIEVEMENTS SHARP REALIZED BY USING QSIGHT

Streamlined Inventory Management

QSight made it easier for the SMH Cath Lab team to manage inventory by eliminating manual tasks through product barcode scanning and integration with the health system's materials management information system (MMIS). For instance, when QSight alerted users to products below PAR, they reordered them within the solution rather than having to log into the MMIS to place the order.

Actionable Insights

QSight's powerful analytics and reporting capabilities provided the SMH team not just data e.g., expiring trends, physician supply usage, wasted products, etc., but actionable insights they leveraged to smarter, faster decisions. What's more, QSight enabled the SMH team to customize the reports in a way that was meaningful to them.

Enhanced Patient Safety

QSight alerted SMH staff to expiring product, enabling them to be used or otherwise safely removed them from on-hand inventory. If an expired item made it to the patient's bedside, QSight alerted clinicians to the issue. This vastly reduced the risk of "never events," - putting expired products into patients.

Labor-Saving Documentation

Through integration with SMH's Cath Lab hemodynamic system, which integrates with its electronic medical record (EMR) system, scanned product data from QSight populated the patient record with little manual keying of data required.

SMH Cath Lab CORE Award-winning Team
Front (L-R): Leny Flores-Lim, Falyn Biedermann, Emily Villegas; Back (L-R): Danya Willms, Walter Altamirano, Brian Kelly, Francesca Marin

LOOKING AHEAD

Leveraging their success with QSight in the Cath, IR and CT Labs, Sharp HealthCare is now exploring expansion of the solution into its hospital operating rooms (OR).

This new frontier has historically presented challenges for inventory management, but with QSight's capabilities, Sharp Healthcare's dedication to patient care, and the costs and risks of poorly managed Perioperative supplies, it is a journey worth taking.

"QSight has been a game changer for Sharp in lowering our costs and improving our efficiency in the cath labs," said Ramsey. "The cath lab was just a start for QSight at Sharp. The next area frontier is the OR. It will be challenging, but I believe QSight in the OR can have an even bigger impact than it did in the cath lab."

Owens &Minor

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>
> *Colin Ramsey, Business Consultant*
> *Cardiovascular Service Line, Sharp HealthCare*

Quick Facts

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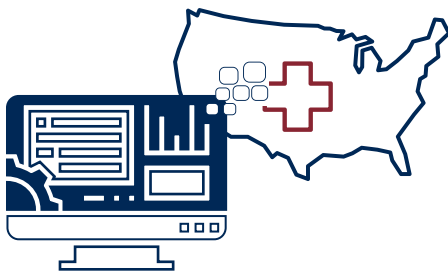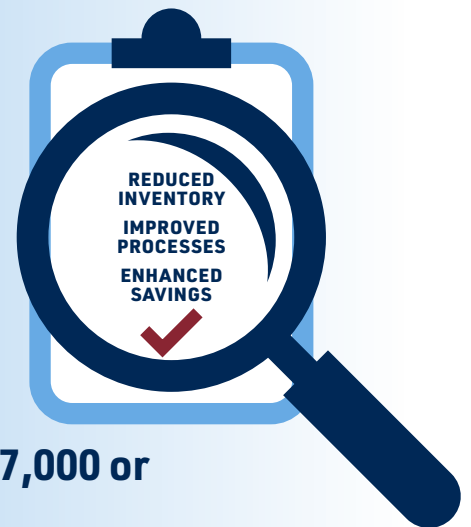
At Owens & Minor, we understand that being a great partner means you never stop thinking of ways to improve your customer's business. We continue to look for opportunities to empower Mary Washington to get the quality products and services it needs, to reduce costs, and to deliver better patient care. Let us do the same for your hospital.