



Four Focus Areas of a Clinically Integrated Supply Chain

By Cory Turner

E-BOOK



Why Improve Your Clinical Supply Chain?

The Triple Aim – better patient experience, improved outcomes and lower costs – is the Holy Grail that healthcare organizations seek as they optimize health system performance. Many also extend their focus to the Quadruple Aim, adding staff experience to the mix. Bolstering staff working conditions prevent burnout and dissatisfaction, which lead to poorer outcomes and lower patient satisfaction.

A primary avenue for meeting these goals is improving operational efficiency, particularly within the supply chain. A Moody's Investor Services report found that growth in expenses (7.2%) in hospitals is outpacing revenue gains (6%).¹ Streamlining supply chain operations has the potential to reduce hospital expenses by 17.4%, according to Navigant.² The best opportunities are found in procedural areas. While these areas currently provide 42% of the revenue³, they represent the second largest area of supply spend. At the same time, operational improvements enhance patient and staff experience and improve outcomes.

The clinically integrated supply chain "(CISC)" is emerging as a key strategy for mining these opportunities. The Association for Healthcare Resource and Materials Management (AHRMM) defines CISC as an interdisciplinary approach for delivering patient care with the highest value in terms of "achieving quality outcomes while reducing waste and lowering costs." A CISC coordinates clinical and supply chain knowledge, data and leadership toward care across the continuum that is safe, timely, evidence based, efficient, equitable and patient focused.

The following insights are key elements to focus on to achieve a clinically integrated supply chain.

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1.

Encourage data-driven collaboration

Misunderstandings between supply chain and clinical staff are unfortunately quite common and lead to inventory management and purchasing issues.

Without an understanding of how the supply chain works, clinicians may fear that a surgeon won't have a specific product when needed and thus hoard or hide supplies. Without visibility into all inventory, supply chain staff struggle to determine what products have been consumed, set accurate par levels, perform resource forecasting and make accurate purchasing decisions. Poor communication and the inability to exchange data between the different groups create laborious and time-consuming processes to manage, track, capture and analyze inventory.

By creating cross-functional teams that include clinicians and supply chain experts, healthcare organizations can improve communication to better identify opportunities to enhance supply chain performance. Collaborative processes lead to greater engagement and trust among stakeholders, enabling them to develop more effective solutions to inventory management and operational logistics.

Healthcare organizations can facilitate cross-functional collaboration by including all stakeholders — the supply chain, physicians/clinical teams and leadership. As the largest consumers of supplies in a hospital, physicians and clinicians are essential participants. Senior leaders can jumpstart the collaborative process by bringing the necessary parties to the table, set an example and facilitate the adoption of new processes. To get buy-in from senior leadership, ensure that they understand that the supply chain is a strategic asset for the organization. Also key to success is leveraging data to measure progress, gauge performance and facilitate ongoing improvements.





2.

Gain visibility across systems and processes

Many healthcare organizations lack the data necessary to optimize supply chain processes as well as improve clinical and financial results. The enterprise resource planning (ERP) systems are primarily used for purchasing and human resources activities. ERPs typically fall short of providing the appropriate level of inventory management, demand forecasting, tracking and tracing, and point-of-care functionality needed to meet the advanced supply chain requirements of today's health systems, in addition to the various clinical inventory needs of every department. As an example, ERPs are not designed to track critical specialty products (such as tissue implants) as they travel from the loading docks through stockrooms to the OR, and ultimately into the patient. On the other end, the electronic health record (EHR) systems used in procedural areas for supply documentation are error-prone, cumbersome and disruptive to clinical workflows, resulting in low compliance and revenue leakage.

The ERP and EHR systems lack the capabilities to manage the entire end-to-end product flow — from ordering to utilization on a patient — and address the specific needs of the products in the varied environments inside the hospital.

This mixture of siloed applications and manual processes leads to inaccurate data and prevents end-to-end visibility, thus making these systems ineffective for the supply chain team and clinical staff.

Healthcare organizations that collect product data and track product movement electronically can improve supply chain accuracy. Providing visibility across supply chain processes that span the ERP and EHR requires a common data foundation. This goes a long way toward building an integration between clinicians and materials managers to better manage item-level traceability to the patient and the hospital's inventory. For example, a healthcare organization can gain a complete history of a product by tracking the Unique Device Identification (UDI) right down to when and where the item was procured, when and where it was received, moved and stored to a department, and the encounter where the item was used in the patient and on which surgical case.

How Lack of Visibility Impacts Supply Chain Stakeholders

Supply chain issues

- Inability to optimize preference cards.
- Multiple products for the same purpose drive higher inventory carrying costs.
- Incomplete understanding of product utilization.
- Gaps in the chain of custody.

Clinical issues

- Expired products remain in circulation.
- Inability to trace and recall products.
- Risk that stockouts or missing supplies can cause delays/cancellations.

Financial issues

- High investment in inventory.
- Lost charge capture.
- Inability to link inventory consumption with specific procedures to quantify the true cost of care.

3.

Automate and integrate clinical and supply chain workflows

As illustrated in the previous section, healthcare inventory workflows today consist of highly disconnected and manual processes. Improving supply chain efficiency requires a supply chain management process that's automated from end-to-end. Yet most hospitals are not looking to replace the ERP and EHR systems they already have. Rather, they need to plug the gaps in their existing systems.

The answer is a solution that integrates seamlessly with installed ERPs and EHRs to automate manual supply chain processes while integrating clinical inventory requirements.

Using RFID, barcode and mobile technologies within advanced supply chain workflows, healthcare organizations can automatically track and capture all relevant information about each product (e.g. UDIs, serial/lot numbers and expiration dates as well as more specialized data like temperature for tissue implants) and correctly document product movement from the hospital dock to storage in the department to patient consumption. This helps to digitize and improve case preparation and simplify the process of picking items from preference cards. Clinicians can automatically scan each supply or implant used on a case, capture the UDI effortlessly without double-entry, and use the UDI to track which patient and procedure it was used for. Alerts during case consumption should prevent use of recalled products, improving patient safety. Comprehensive product data tracking gives clinical and supply chain teams visibility into inventory across the supply chain, enabling them to easily retrieve recalled products stored in the facility or precisely identify any patients in which it was implanted.

Fully automated inventory management processes deliver numerous benefits. They reduce the burden of manual data entry on frontline and back office staff, leading to greater engagement and reducing burnout. Supply chain staff become empowered to automate requisition and PO generation, simplify invoice recognition, improve inventory reconciliation with suppliers and gain visibility into the inventory vendors store in the facility and what products clinical staff used on cases as trials and one-time usage items.



Automation and clinical integration results in reliable information and accurate data captured at point of care which can be used to forecast purchasing, optimize productivity and improve patient safety.

4.

Connect supplies and products with analytics

Most healthcare organizations agree that analytics play a key role in addressing healthcare supply chain challenges. In a recent survey by Sage Growth Partners⁴, 63% of respondents said there is clear ROI for supply chain analytics, with 98% claiming such analytics can positively impact hospital margins. Yet many healthcare organizations have immature or no analytics; 27% said their hospital has not used supply chain management data analytics to identify ways to improve quality.

Organizations need a supply chain solution that supports advanced analytics of data captured at the point of care. A few examples of how healthcare organizations can benefit from analytics include:

True Case Costing

By fully tracking the actual costs of all products associated with each procedure, healthcare organizations can compare different physicians performing the same procedures. Ultimately, this case costing data can be used to highlight comparative effectiveness on products' utilization and help a healthcare provider understand costs relative to outcomes.

Greater Standardization

By reviewing product performance data on an ongoing basis, clinicians gain evidence that enables informed decisions on PPI standardization and supplier consolidation. Standardization and consolidation cut costs by reducing inventory levels, providing leverage in contract negotiations to obtain better pricing and reducing the overhead costs associated with working with multiple suppliers.

Optimized Preference Cards

Hospitals need data to determine whether preference cards are accurate or clinicians are adding items after the fact or leaving items unused. By ensuring that all supplies are ready for each procedure at the right place and time, accurate preference cards minimize the time necessary to prepare OR cases or return unused items, eliminate the need for clinicians to chase after supplies that were not picked and cut rush charges to ship missing items.

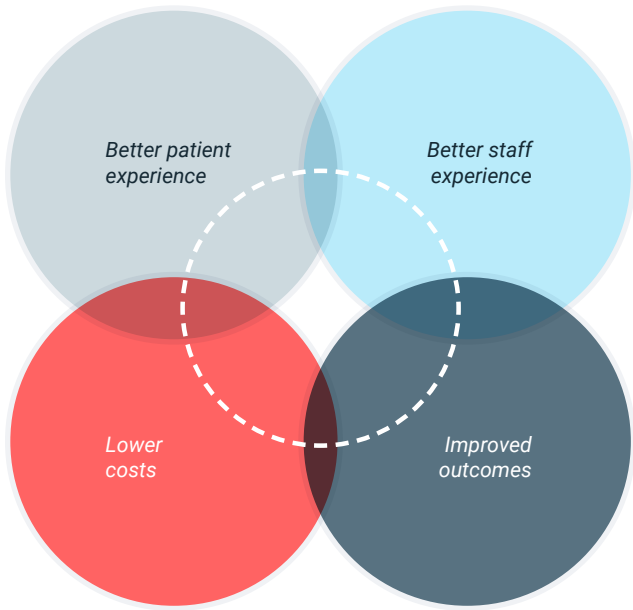
Better Inventory Forecasts

By analyzing historical trends, organizations can create better forecasts for optimal inventory levels of each product, reduce spending on specialty products with product standardization and identify bulk buying opportunities.

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Conclusion

As healthcare organizations struggle to survive and thrive, they're increasingly focused on pursuing the Quadruple Aim of enhancing patient and staff experience and improving outcomes while lowering costs.

A clinically integrated supply chain supports their efforts to meet all these goals. A CISC helps supply chain and clinical stakeholders cooperate to come up with the best solutions. It provides accurate data and visibility to better track products across the supply chain. It delivers the automation necessary to streamline manual clinical supply chain processes and improve patient safety in the event of recalls. At the same time, analytics enable healthcare organizations to reduce costs while maintaining high quality through greater standardization, better inventory forecasts and optimized preference cards.



Speak to a Hospital Supply Chain Expert



Sources

¹ Kacik, Alex. Cost containment is a top priority among health system executives. Modern Healthcare. July 11, 2018.

² Study: Hospitals' Annual Supply Chain Savings Opportunity Reaches \$25.7 Billion. Navigant. November 13, 2019.

³ Sustaining Margin Performance in the OR: The Mercy Story. Tecsyst. 2017.

⁴ Optimizing Supply Chain Management Market Report. Sage Growth Partners. March 2019.
