Data Sharing to Achieve a Resilient and Transparent Supply Chain with the Cook Medical Supply Chain Fellowship

The 2025 Supply Chain Fellowship, hosted collaboratively by Cook Medical and Mayo Clinic, highlights the potential impact of the one-to-many data sharing model to strengthen existing healthcare supply chains. The analysis centers around the use of Surgence, a cloud-based data sharing platform developed to organize data and seamlessly connect suppliers, distributors, and providers. This whitepaper highlights two current capabilities that exist on the platform, as well as two future opportunities expected to arise as Surgence grows and expands its offerings. Currently, the ability to streamline an organization's substitute process and optimize inventory strategies are both high-impact areas that can contribute to cost, time, and space savings across the enterprise. In the future, integration of capabilities to more accurately utilize product lead times and proactively manage constraints are expected to greatly improve an organization's modernization abilities. Cook Medical and Mayo Clinic agree that implementing a multi-directional data sharing strategy is essential for establishing a resilient and transparent supply chain.

Company backgrounds and fellowship overview

About the fellow | Emma (Em) Strieter, the 2025 Supply Chain Fellow, kicked off her work in January 2025 upon graduation from the University of Tennessee-Knoxville with her M.B.A. in Supply Chain Management. She provides a unique perspective of leveraging supply chain to accomplish goals such as cost reduction and improved patient care, driven by her background with a B.S. in Biological Sciences from the University of South Carolina. Her experience in research lends well to a comprehensive evaluation of a data-sharing platform and the ability to use a bilateral lens to find opportunities and improvements for all parties involved. Throughout the fellowship, she has acquired new perspectives from both supplier and provider in the healthcare supply chain.

About Cook Medical | Cook Medical, a manufacturer of medical devices for minimally invasive procedures, stays true to their passion: making unique, quality medical products and connecting with people to improve lives on both sides of the device. Serving providers for 60+ years in 135 countries has given Cook a deep understanding of both successes and challenges of the healthcare industry.

As a private company, the Cook team prioritizes innovation of their products and processes. Their agile nature provides the opportunity to serve as a pioneer among suppliers, and they are excited to dive beyond the status quo to find solutions that will truly improve patient lives.

Cook Medical's passion for care extends beyond patients to the communities in which they serve. Headquartered in Bloomington, IN, the company continuously supports local and global organizations while employing thousands of team members worldwide.

About Mayo Clinic | Mayo Clinic's patient-first mentality and commitment to quality care has positioned them as an unwavering leader in the healthcare industry. They have received more No. 1 rankings across specialties than any other hospital and are consistently recognized for their

quality of care. Regardless of their awards and accomplishments, the Mayo Clinic team remains committed to their primary value: The needs of the patient come first.

While serving 1.3 million patients yearly from over 130 countries, Mayo Clinic emphasizes innovative research and does not back away from challenging cases. Their team is dedicated to finding a personalized treatment plan for each patient, leveraging all necessary specialties and resources. They consistently provide exceptional care and seek to build upon the foundational principles developed by Will and Charlie Mayo.

Supply Chain Fellowship model

Why was the Fellowship created?

Throughout the past decade, the team at Cook Medical has faced a common challenge in the healthcare industry: the lack of collaboration between suppliers and providers. When ideating ways to close this gap, a supply chain fellowship was considered. Not only could this improve supplier-provider relationships, but it would simultaneously facilitate the development of the future leaders of healthcare. After years of planning (and yes, paperwork), the first fellow was onboarded in 2023.

How does the Fellowship function?

Each fellowship begins with the identification of a provider partner who is willing to work alongside Cook Medical to combat current industry challenges. Once this relationship has been developed, Cook Medical and the provider discuss opportunities and areas of interest to select a mutually beneficial project. This is a year-long undertaking, providing a longer timeline in which a complex problem can be faced - highlighting the difference between this role and a shorter supply chain internship. Upon consensus of the task, the fellow is selected. The pool of candidates includes recent MBA graduates with an interest in healthcare supply chain, the selected standing out as one who can drive analysis and

articulate results. The fellow is expected to complete a whitepaper on their findings and present at various conferences to engage other industry experts.

Data sharing: the Surgence platform

Surgence is a cloud-based platform launched in 2023 by Concordance Healthcare Solutions built in collaboration with Palantir Technologies. The platform was created to address the longstanding lack of visibility and coordination across the healthcare supply chain. By combining Concordance's industry expertise with Palantir's advanced data integration and AI capabilities within the Foundry software, Surgence enables secure data sharing, real-time analytics, actionable insights, and end-to-end workflows that drive supply chain resiliency and efficiency. Rather than creating one-to-one connections with each individual party, organizations can integrate their data into the Surgence ecosystem, then leverage access to many others through one platform. The system has various "apps" focused on managing inventory, substitutes, and orders, among others. A top advantage differentiating Surgence is their strong security and encryption measures; they administer data access at the cell level, reassuring users that proper safeguards are in place. The team's overarching goals are to improve transparency, reduce costs, and optimize the flow of the end-to-end supply chain.

Current opportunities

As data sharing processes have become more prevalent within the healthcare industry, experts recognize that this collaboration between supplier and provider can improve supply chain efficiency. However, what has previously been lacking is the ability to scale. Surgence offers a solution to develop once and deploy to many, enabling organizations to connect with many industry partners.

As their capabilities continue to grow and improve, Surgence's current features can support operational efficiencies right now. Streamlining the substitute process and optimizing inventory strategies have been identified as two areas in which cost and time savings can be achieved.

Streamlining the Substitute Process via Substitute Manager

Identifying, approving, and ordering substitute products has historically been a time-consuming and inefficient process in healthcare. Many organizations struggle with back-and-forth communication with both internal and external stakeholders while searching for viable substitutes that are vital to providing care for patients. Early in Surgence's ideation, the team recognized this challenge and chose to face it head on. They believe a connected and transparent environment within the substitute process is foundational to achieving an efficient and cost-conscious supply chain.

Substitute Manager, one of the apps within Surgence, is focused on making these connections. Mayo Clinic's product and substitute data has been integrated into the app, so their team is able to quickly search for solutions for a backordered product, or proactively drive toward resiliency, by identifying if there are any approved or recommended substitutes in their system. This organizes much of the data, workflows, and decisions Mayo Clinic already deploys in a clear and accessible way.

For additional value and collaboration, Cook Medical offered to integrate their substitute data into the system. Now, when Mayo Clinic looks for a substitute, they see options enriched with Cook Medical's information. Many of these substitutes were not previously identified by the provider, and this resulted in over 2,000 additional potential substitutes available for review by Mayo Clinic's Clinical Quality Value Analysis team. While this has provided additional resiliency opportunities, it also allows Mayo Clinic to remain on-contract whenever possible by purchasing a substitute from their primary supplier.

Although Substitute Manager provides benefits as it stands, the Surgence team is eager to improve and expand upon its current capabilities. To better support provider teams, additional supplier data would be beneficial to display. For example, Cook Medical has shared their inventory statuses, allowing providers to quickly identify in-stock substitutes and avoid wasting time on out-of-stock items. Product images and dimensions are also planned to be included for both end users and supply chain personnel to gain a better understanding of the product and the space needed to hold it upon arrival. Finally, Cook Medical differentiates between their stock and non-stock products, those that are held in inventory vs. made-to-order. Including this data within Substitute Manager would be an indicator for potential lead-times for a substitute, as those stocked in inventory likely arrive quicker than a non-stock product would.

Cook Medical has potential benefit from shared information on substitutes as well. The team currently sees where Mayo Clinic utilizes substitutes from competitive manufacturers and can recommend their own substitutes for provider use. In the future, the app will be enhanced to display where Cook Medical's product is listed as a substitute for a non-Cook item. Having visibility

to this information enables the supply chain team to refine their sales strategy and provide sales representatives with more comprehensive insights into product utilization among their customers in real time.

Inventory Optimization via Inventory Manager

Analysis of Surgence data showed that the Inventory Manager app offers benefits to both Mayo Clinic and Cook Medical. This portion of the platform focuses on Mayo Clinic's inventory, including specific stocking locations, daily usage, Par and reorder levels, and more. An analysis was conducted on all Cook Medical products being used across the Mayo enterprise to identify areas of cost and space savings. Both parties previously identified their estimated purchase order costs, which contributed to the savings analysis.

By setting a "standard desired days inventory on hand" at the reorder point across Mayo Clinic, optimal reorder levels were calculated. The analysis conducted identified many products that were set up to order one upon one being used, which exacerbated the growing costs associated with placing, shipping, and receiving an order. Based on the results, it is estimated that both Mayo Clinic and Cook Medical could each see a 26% annual savings in their purchase order costs. This enables both entities to make cost-efficient decisions with their funds and continue to innovate. When expanded to other manufacturers and provider customers, an excellent opportunity is provided to reduce costs, optimize the ordering process, and support sustainability initiatives, as less packaging is needed for consolidated orders.

Data sharing around product dimensions and inventory needs can reduce waste and improve operational efficiency.

A Par level analysis was also conducted to identify opportunities to reduce space utilized by Cook Medical products and lower inventory carrying costs. Discussions with the Mayo Clinic team revealed many opportunities to optimize product storage space, whether in inventory warehouses or storage rooms throughout their network. Utilizing data from Inventory Manager, a standard desired days inventory on hand at the Par level was calculated. Then, this information was synced with Cook Medical's product dimensions list. The space used at the current and recommended par levels were calculated, and the analysis found a potential 43% reduction in space necessary to hold Cook Medical products across the Mayo Clinic enterprise. Future enhancements plan to integrate Cook Medical's product dimensions directly into the Inventory Manager app to streamline the analysis and optimization, limiting the need to conduct an external Excel analysis. As seen in the space savings, many products were recommended a lower par level, but some actually saw an increase to meet the days inventory on hand target. The standardization of these targets could be beneficial for all parties involved, allowing the supply chain teams to plan more effectively. By optimizing the space used by current stocked products, Mayo Clinic can add non-stock products to their inventory to better equip end users to serve patients.

The Surgence team plans to continue updating and enhancing the Inventory Manager application to better serve customer needs. One future idea is to enhance the existing deadstock filters, which identify expired items or those unlikely to be used prior to expiration, by including product dimensions. Since many providers suffer from high deadstock levels but are unsure of where to begin, this feature could help develop prioritizations lists of deadstock removal, identifying locations of greatest impact.

Future potential

In addition to the aforementioned opportunities that exist within Surgence in its current state, the data sharing platform is still experiencing rapid growth and expanding its offerings. It is important to consider the future potential that lies within the platform, as the one-to-many model can greatly drive efficiency moving forward.

Lead Time Accuracy and Improvements

Lead times within the healthcare industry have traditionally been a challenge to accurately identify and effectively utilize. Many organizations use standard, or "fixed", lead times across product categories, which can misinform procurement strategies and users that rely on the product's arrival. To improve this aspect of the supply chain, Surgence is in the process of deploying a new app, Lead Time Manager. The team has shared their future vision for this app and how the data shared can enable smoother processes for industry partners.

Providers like Mayo Clinic may have varying insight and control of their lead time attributes. The application uses historical and forecasted data for item-by-item projections and compares them with each provider's expected values when available. Alerts are generated when inconsistencies in lead times are expected to result in ordering and inventory risks.

While Lead Time Manager is built to bring visibility to lead times, it also generates foundational attributes that enrich other applications. One example of such is a confidence score, indicating to users the reliability of the average lead time. Data points like this would then be connected to other apps within the system, such as Substitute Manager, to improve decision making by various users across organizations.

After the provider's information is up-to-date, suppliers, like Cook Medical, could share their data for a united approach to lead time management. Their product lead times, stock vs. non-stock traits, and inventory levels would be beneficial attributes to include. The supplier could compare their estimated lead times to those of the provider and the calculated average to determine their accuracy. If the information differs, then the user could identify areas of inconsistency, such as carrier delays. At times, when there is a specified lead time in a contract, this data could be compared to identify if suppliers are meeting their promised deliveries during the scorecarding process. A future hope to be included in this app is an average lead time of the market and product category. Suppliers could then compare their lead times to anonymized and averaged competitors to determine where their service level in this area stands.

Greater visibility into lead times via both provider and supplier data could greatly benefit many organizations and enhance their operations. All industry partners could make more informed ordering decisions to better support their business needs.

Proactive Constraint Management

Surgence's Supply Constraint Manager application offers insight into supply chain constraints (delays, backorders, etc.) for each organization. Mayo Clinic can view items, suppliers, and locations across their enterprise currently experiencing and most plagued by constrained products. Cook Medical receives comparable data regarding their products across Mayo Clinic, identifying where product limitations exist. The Cook team can collaborate with Mayo Clinic within the app in its current state, whether to recommend substitutes or provide additional information as to why an item is constrained. There are also priorities assigned to these constraints, giving the supplier and provider supply chain teams an indication of how to prioritize working through these issues.

Although beneficial to view this information in an organized manner, the vision is to move from reactive to proactive when managing constraints in the future. The Surgence team plans for a more integrated approach to quickly develop contingency plans to reduce the impact of backorders.

From a supplier perspective, Cook Medical currently uses their customer portal and direct communication channels to convey important company and product information to customers. Their Product Event Tracker displays extended backorder information, discontinuations, and more, while linking to the Supply Chain Disruption Monitor Dashboard to share the impact of global supply disruptions faced by the organization. Also available on the portal is Cook's Supplier Risk Dashboard, which was developed to highlight product characteristics of particular interest in today's global economy. Details such as raw material sources, locations of key processes like sterilization, and capacity are available but potentially underutilized. Integrating this existing data into Surgence's one-to-many model could give customers more holistic access to information, removing the need to enter a unique portal for each of their suppliers. It could also be employed to proactively flag potential challenges and allow Cook team members to make recommendations within the application itself. By sharing this information and engaging with the customer directly, Cook Medical can help lower negative impacts and heighten resiliency for Mayo Clinic while improving their service levels and reducing lost revenue.

Surgence strives to greatly reduce the impact of constraints within the supply chain so providers like Mayo Clinic can better serve their patients. Previous assessments conducted by the Mayo Clinic team found that over 70% of the core tasks in their supply chain have known automation opportunities to effectively support and enable employees to focus their time on value-added operations. Constraint management is one area in which Surgence can support initiatives to close the gap on automation. Along with integrated data

provided by suppliers, Surgence plans to include AI-powered identification of and recommendations for products that are or could become constrained. Mayo Clinic could then utilize this information to develop contingency plans for product unavailability. This may include proactively identifying and approving substitutes, finding internal areas where products could be transferred, or implementing conservation measures to be prepared for a shortage before it begins. The Surgence team is also developing write-back capabilities into ordering and source systems so action could be taken directly through the platform.

A space for providers, suppliers, and distributors to collaboratively face constraints streamlines transactions by reducing the need for calls, emails, and spreadsheets, saving time and labor resources. Supply Constraint Manager will see continued improvements as customer feedback is received and tools are further created to address supply chain challenges.

The fellows and representatives from Cook and the partner providers presenting their findings at the LogiMed conference.

The way forward

Despite the challenges associated with data sharing in the healthcare industry, an unprecedented opportunity is presented for a future of connectivity. Currently, suppliers, providers, and distributors operate primarily in silos or one-to-one channels. Visibility and transparency are limited, and decisions are made without all relevant information. Utilizing a one-to-many data sharing strategy that quickly unites information can allow for smarter decision-making, reduced costs, and improved operational efficiencies. To see these improvements and modernization of the industry, one thing is clear: all must go *together*.