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Supply Chain Efficiencies

Hospitals utilizing patient care quality metrics to drive supply chain efficiencies have seen improvements to their bottom line.

The Affordable Care Act solidifies the healthcare industry's evolution from a fee-for-service to a fee-for-performance payment system that emphasizes quality over quantity, placing increased pressure on hospitals to either improve patient care or face reimbursement cuts. One health system with about 40 health centers reported a $78M revenue decrease compared to its previous year resulting from reimbursement cuts for billed services.[1] Another health system noted that, on average, hospitals are only reimbursed for 80% of the cost of caring for Medicare patients.[2] Hospitals are reviewing their budgets to find innovative solutions for containing costs while maintaining or increasing the quality of care they provide. Given that supply chain costs comprise 30-50% of a hospital's budget, second only to labor, supply chain efficiencies achieve much needed savings to counteract reimbursement reductions.

Achieving supply chain efficiencies may not be a novel concept, but it is now more important than ever to re-examine current processes. With the evolution of quality-based reimbursement models, some hospitals are building a product's total cost of ownership into their supply chain initiatives, considering the product's upfront cost as well as its cost (or savings) in relation to improved patient care. Measurements of improved patient care can range from patient satisfaction with services, shorter lengths of stay, reduced readmission rates and reduced wait times for procedures. Hospitals utilizing patient care quality metrics to drive supply chain efficiencies have seen improvements to their bottom line.

STRATEGIES FOR CREATING AN EFFICIENT SUPPLY CHAIN

Reducing Clinical Variance

Hospital supply chain initiatives often target high-cost clinical services to reduce clinical variance among practitioners. For example, one five-hospital health system sought to reduce the clinical variation across colonoscopies by streamlining the sedative used during the procedure. The health system began by determining the number of different sedatives used and the factors contributing to use of one over another (e.g., using a certain drug during deep sedation versus other drugs during moderate sedation). The health system then compiled and reviewed data relating to each sedative's impact on the quality of patient care by evaluating procedure time, recovery time and patient satisfaction. The health system determined that only one sedative should be used for all colonoscopies, generating the ability to add 12 cases per day across the health system and a total annualized margin improvement of $600,000.[3]

Another health system reduced clinical variance by standardizing the products used to treat and prevent certain hospital-acquired conditions (HACs). The health system designed product "bundles" used to treat patients at risk for each HACs and organized such bundles to increase access and use by staff. The initiative resulted in significantly lower infection rates, improved quality of care and a $6.7M cost reduction. Although the bundles contained higher upfront costs compared to individual products customarily used to treat HACs, the health system received a return on its investment by recouping $2 for every $1 invested in the initiative.[4]

Improving Product Identification and Product Location Tracking[5]

Developing rigorous product identification standards improves patient care by ensuring that products are efficiently identified and located throughout the hospital or health system. Detailed product data standards also improve accuracy of product recall management, adverse event reporting, electronic inventory

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Hall Render provided guidance on 501(r) compliance in the April issue. Check out the **April digital edition** at www.advanceweb.com/executiveinsight.

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monitoring and submission of purchase orders when inventory is low. Such efficiencies improve the quality and accuracy of patient records and billing, thereby maximizing reimbursement. For example, one health system partnered with a global medical device manufacturer that has already implemented such standards to improve its product identification and data. The health system listed its locations with standard identifiers (i.e., the receiving dock, storage unit, operating room, patient room and catheter laboratory), and the manufacturer's team performed an onsite evaluation of the health system's IT infrastructure and its capabilities to capture and read data standards. By adjusting health system's IT infrastructure (including its enterprise resource planning system, clinical systems and other internal systems), the health system transacts purchase orders and invoices more efficiently and manages inventory levels and product locating with greater accuracy and minimized human intervention. Most hospitals do not yet have the capability to implement such product data standards due to the expense of updating IT infrastructures. Such innovations, however, pose huge opportunities for improving patient care and maximizing reimbursement.

Automating Product Usage[6]

Additional supply chain initiatives focus on product usage. One hospital noticed low compliance among nurses in scanning product barcodes prior to use at the patient bedside. This step is necessary for product replenishment on the unit and proper billing for use of the product. The hospital aimed to reduce this non-compliance by redesigning bedside product storage units and educating nurses regarding the importance of scanning. This initiative resulted in significantly increased compliance rates with barcode scanning procedures and a $500,000 annual revenue increase. The increased compliance also improved patient care by ensuring sufficient inventory levels on the unit.

Utilizing Evidence-based Data to Collaborate With Clinicians

Efforts to standardize products and processes involve collaboration with clinicians and the importance of evidence-based medicine. Some initiatives are more successful than others on this front.[7] One health system found widespread variation in the type of bone cement used in orthopedic procedures. One hospital used a more expensive antibiotic bone cement product 60% of the time while another hospital used it in all cases. With reliance on evidence-based literature, the health system reduced the use of the antibiotic bone cement product by finding no statistically significant evidence that the product was needed except in cases of high-risk patients with acute infections. The health system was able to maximize savings by lowering costs associated with orthopedic procedures not requiring the more expensive product.[8]

Non-Medical Supplies and Purchased Services

Once a health system effectively manages medical and surgical products, leaders in supply chain management apply the same strategies to purchased services, including clinical and laboratory services, IT products, food and nutritional services, linen, environmental services or facilities management and any non-medical product or equipment that a health system needs. Hospitals should evaluate whether an out-sourced or direct model may result in cost savings for such purchased services since purchased services can account for 20-24% of a hospital's budget and pose additional opportunities for hospitals to reduce costs.

PRACTICAL TAKEAWAYS

While a few examples of supply chain initiatives that may create efficiencies for hospitals have been identified above, an initiative's specific design will vary across hospitals and their objectives. Some hospitals have restructured team composition rather than designing initiatives around specific service lines, for instance, requiring regular meetings among physician, staff, finance and supply chain members to address certain high-volume products to determine from a clinical and financial perspective whether standardization is feasible for a single supplier or product. Whether adding inter-disciplinary members to the supply chain department or basing purchasing decisions on evidence-based medicine, hospitals that continue to innovate and improve their supply chains processes can and do achieve cost reduction and reimbursement savings.

When embarking on new initiatives, hospitals should consider:

- **Evaluating policies and procedures as they relate to supply chain contracting and purchasing;**
- **Standardizing terms and conditions for purchase agreements;**
- **Drafting template agreements to be used for products and services purchased outside of a group purchasing organization ("GPO")/ directly with vendors;**
- **Partnering with the supply chain department to provide in-service training on best practices for negotiating supply chain agreements;**
- **Evaluating the hospital's relationship with its GPO;**
- **Issuing requests for proposals (RFPs) for products that could create cost savings through limited vendor options;**
- **Reviewing regulatory requirements for products and integrating into standardized systems and acceptability of supplier programs;**
- **Evaluating the hospital's arrangements with other providers, that contain quality-based incentives for utilizing preferred products or vendors; and**
- **Providing guidance to their procurement department on various supply chain contract management strategies.**

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