



where do you stand?

Examining the impact of
OR supply chain operations
on hospital profitability

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GNYHA Services and Nexera are subsidiaries of GNYHA Ventures, the for-profit arm of the Greater New York Hospital Association. GNYHA Services is a strategic group purchasing organization and supply chain resource currently serving over 300 hospitals and health systems and 2,300 health-related facilities in New York, New Jersey, Connecticut, Massachusetts, Indiana, and Puerto Rico. GNYHA Services often collaborates with its sister consulting company, Nexera, to help its members apply a value-driven approach to improve financial and operational performance.

Entering the 18th year of its alignment with Premier, GNYHA Services is proud to work with the Premier alliance to identify data-driven methods to help our members lower total costs while improving outcomes.

Over the past few years, the healthcare industry has experienced a sea change. The Affordable Care Act has led to the adoption of new systems and payment methodologies that approach care from a more holistic perspective. The holistic care of patients as encouraged by bundled payments is one area of focus for health system leadership in 2016.

The entire episode of care is considered under bundled payments versus traditional fee-for-service (FFS) charges for each supply, service, or treatment. Four different bundled payment models were released by CMS beginning in 2013.¹ Depending upon the specific model, this can be the most challenging and risk-based segue from the FFS system; nevertheless, it is where CMS aims to move providers in its effort to tie 30 percent of traditional payments to value by the end of this year, and 50 percent by the end of 2018.

Managing supply costs is critical to the success of bundled payments – or any value-based payment methodology for that matter. The Association for Healthcare Resource and Materials Management (AHRMM) predicts that medical supplies will outpace labor as the biggest expense for hospitals and health systems by 2020.² To ensure that they are properly reimbursed, hospital administrators, physicians, and post-acute providers in a care network need to work together, along with suppliers, to control costs and provide the best, most highly coordinated care possible.

In addition to being one of the most costly areas of hospital operations, operating rooms (ORs) are the primary setting for many MS-DRGs affiliated with bundled payment models 2, 3, and 4.³ Unfortunately, there is little formal data published on actual OR expense – even though it is a pillar for both hospital costs and profitability – as there are far too many variables to accurately benchmark how much one minute of OR time costs. We do, however, know that non-labor expenses (including supplies) can account for between 40 and 60 percent of total OR costs.⁴ These expenses are a logical target for reduction and performance improvement efforts, as they do not directly affect labor, yet are still capable of making a meaningful impact on reimbursement and the hospital's bottom line.

OR operations and the supply chain

There are many factors involved in OR operations. Many of these elements can contribute to process obstacles that ultimately lead to costly care delays. For instance, a case cart needs to be prepared with the items required for each procedure, including any preference products requested by the performing surgeon. Failure to find a product when it's needed, product hoarding, or poor storage systems can lead to a delay that impacts multiple cases. These delays are measured not only by the hard dollar cost of staffing and product expense, but also by the clinical quality of care.⁵

What differentiates best practice ORs from the rest is the integration of technology systems to optimize the use of supply data and drive a defined process that has the ability to adjust to unexpected variables and support continuous improvement. Supplies are necessary to perform any procedure. In essence, they are the crux of OR operations. Assessing the supply chain can paint a better picture

of what is affecting downstream OR operations, clinical documentation, EMR, and eventually, patient billing and reimbursement.

Evaluating supply chain practices

Centralized, standardized processes are essential to a high-performing supply chain. There are six core supply chain areas that should be reviewed to determine performance; all are impacted by technology (see Figures 1 and 2).

Integrating supply chain technology – the Item Master File with requisitioning and electronic data interchange (EDI) systems – with downstream OR processes saves time, prevents errors by eliminating transactional processes, and produces actionable metrics that can be used to monitor and create controls within the supply chain and the OR. The PremierConnect® Supply Chain platform offers solutions that can link and manage the procure-to-pay process holistically, including:

- Contracting;
- Requisitioning;
- Purchasing;
- Receiving;
- Distribution; and
- Inventory management.

Inventory management, especially in the perioperative space, can be one of the biggest challenges for hospital supply chains. It is important for health system leaders to remember that profitability and inventory are interwoven. Effective inventory management can reduce wasted time, allowing health systems to maximize the OR throughput and provide a higher level of satisfaction for staff and patients.

The level of work involved in implementing best practice inventory

Fig.1



Note: Figure provided by Nexera.

management, however, cannot be overstated. Coding systems should be put into place, cycle counts consistently performed, and perpetual and par levels regularly reviewed (to name but a few) – all within centralized and secure storage locations that clinicians are trained in using effectively by supply chain staff.

Putting OR supply chain improvements into practice

Inventory management

A 400-bed GNYHA Services member hospital recently collaborated with GNYHA Services’ sister consulting company, Nexera, to enhance OR inventory services. The hospital was implementing a new enterprise resource planning (ERP) system, including a new inventory module. The process uncovered high inventory levels, unmanaged inventory, and the lack of an effective storage methodology. In fact, the hospital’s OR had almost \$5 million of inventory on hand – all of which was stored in multiple locations without any established technology or process.

During a focused, four-month effort, the hospital reduced storage and item locations, standardized OR room products and locations, and verified and validated supply chain data through use of PremierConnect Supply Chain solutions. The hospital staff now has a process for managing supplies so that they can better maintain inventory controls going forward. In addition to the many operational efficiencies achieved, the project delivered \$1.8 million in total savings.

Overall OR cost reduction

Supply chain assessments can encapsulate larger business and financial opportunities as well. A GNYHA Services member Level 1 trauma center and academic medical center recently worked with Nexera on an overall OR business assessment. The medical center was aware that there were potential cost reduction and process improvement opportunities and wanted to implement a focused effort to identify them.

- data/content management
- technology
- value analysis

Fig.2 Best practices for core supply chain functions

	CONTRACTING	REQUISITIONING	PURCHASING	RECEIVING	DISTRIBUTION	INVENTORY MGMT.
PROCESS	New items should be evaluated through a physician-led value analysis and negotiated at the corporate level, ensuring that the majority of spend passes through contracts in order to receive the best pricing.	A demand-planning model for requisitions, based on service line needs and scheduled cases, should be put in place following a corporate approval workflow and formulary.	A standardized purchasing policy that incorporates optimal use of an EDI system is necessary for price matching and reimbursement reconciliation.	Receiving and distribution should follow set schedules and standards that are managed centrally by the supply chain team, who can then educate clinical staff about the reasoning behind specific practices.		Core inventory practices include permanent item locations, minimum and maximum levels (pars), and cycle counting. These practices must first be managed accordingly before introducing technology to enhance efficiencies.
TECHNOLOGY	The Item Master File should be actively managed by an automated system that is consistently normalized.	Supply requests should be made via a centralized electronic requisitioning system. For the OR specifically, physician preference cards can be implemented into a charge-to-order process and updated regularly, based on the normalized Item Master.	A content management solution and high level of EDI penetration should be incorporated in order to eliminate transactional processes.	Receiving should be conducted electronically via scans.	Supply chain should manage distribution functions for all inventory and non-stock items and locations.	Materials management information systems (MMIS) should be integrated with OR technology and back-end financial systems (MMIS to OR system and OR system to finance system) to create a seamless flow of data related to supplies, patient information, and charge capture.

The assessment identified process improvements in inventory management and supply chain technology. It also determined that restructuring the value analysis committee was required to incorporate members of the clinical team. The hospital also found that by making some changes to its scheduling and block time process, as well as updates to physician preference cards, it could better avoid delays, improve performance, and sustain change.

The project resulted in the development of an OR business manager position that will be responsible for managing clinically integrated teams to reduce costs and optimize efficiency, thereby achieving the return on investment value. Premier SpendAdvisor® and related data were pulled and reviewed to identify up to \$1.9 million in cost reduction opportunities related to physician preference items.

Comparing best practices across an accountable care organization

In February 2015, a community-based health system and accountable care organization (ACO) contacted its GNYHA Services business solutions team and their counterparts at Nexera for support related to its supply chain. The member offers a full range of healthcare services to its patients.

In an effort to continue to advance its supply chain operations, the provider wanted to perform a quantitative and qualitative review of its OR supply chain process. The member knew that by comparing the operations of two or more of its hospitals against each other as well as against industry best practices, it could identify discrepancies and implement improvements to save significant time and money.

A project team interviewed clinical leadership, gathered data, and walked through the OR process at two of the member’s hospital campuses. The member now has a roadmap for how to standardize supply chain processes and technology across the ACO – a key factor in achieving a high-performing and profitable OR.

Times of transition can create new levels of uncertainty. Hospitals must now consider quality factors as well as become partially reliant on other providers for the amount they will be reimbursed. As providers assess the best collaborative methods for managing episodes of care for patient populations, the way in which supplies work into this strategy cannot be overlooked. The OR, as the biggest revenue generator and cost center in a hospital, presents a significant opportunity for enhanced operational efficiencies that can translate into increased savings and profitability. Leaders can determine where their health system stands by evaluating how their current supply chain processes link to their downstream operations.

Centralized, standardized processes are essential to a high-performing supply chain.

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