Northridge Hospital Medical Center projects nearly $2 million in benefits with Centricity Perioperative

Facing major capital and operational budget pressures, most healthcare organizations are seeking more effective ways to reduce OR supply costs while preserving patient safety, operational efficiency, and staff productivity. Like many hospitals, Northridge Hospital Medical Center faced a continuing set of challenges in order to achieve these goals.

Profile
411-bed not-for-profit hospital
Medical staff of more than 80 physicians in 60 specialties
Sole Pediatric Trauma Center in the San Fernando Valley
Emergency Services Department treats more than 50,000 patients annually
Earned the Gold Seal of Approval™ from The Joint Commission (TJC)

Challenge
Northridge Hospital Medical Center sought a system to better manage its inventory in order to help ensure that vital medical supplies were always on hand, reduce the amount of time staff spent managing inventory, and reduce inventory.

Solution
By deploying Centricity Perioperative and its Perpetual Perioperative Supply Chain management system, Northridge has ensured that the right medical supplies are available when needed, improved staff productivity, and significantly reduced costs related to the supply chain.

Results
Projected, cumulative five-year net benefit of $1,949,579, with an ROI of 2753% and payback of seven months
Projected, cumulative five-year benefit of $520,404 in productivity improvements
More efficient management of inventory has led to a realized inventory savings of $1,500,000
Reduced time spent validating orders from two to three hours to 15-30 minutes per day
Northridge Hospital Medical Center was not satisfied with its existing system, and sought a new solution that would help accomplish the following:

- **Help ensure that the proper supplies were always on hand**
The hospital was struggling to maintain an accurate on-hand inventory. At times, it ordered supplies via overnight shipping or borrowed from other hospitals. Some nurses even resorted to keeping a private set of supplies.

- **Reduce undersupplies and oversupplies**
Without proper visibility into supplies on a daily basis, it was difficult for Northridge Hospital Medical Center to order the optimal number of supplies. Sometimes it over-ordered supplies, and other times under-ordered them.

- **Optimize staffing resources.**
Staff spent two to three hours a day validating supplies that needed to be ordered or borrowed from other facilities. Northridge Hospital Medical Center sought to decrease that time, so that staff could focus on higher-value tasks.

- **Reduce costs**
Over- and understocking supplies has financial consequences. Overstocking can lead to waste when supplies need to be pulled from stock because they expire. Understocking can lead to expensive rush orders. Northridge Medical Center sought to better manage its inventory and reduce these additional costs.

**DEPLOYING THE PERPETUAL PERIOPERATIVE SUPPLY CHAIN**
Northridge Hospital Medical Center already used Centricity Perioperative to manage scheduling and was happy with the product and the service offered by GE Healthcare. When it looked at the software’s supply chain capabilities, it recognized that it would be an ideal fit.

Deployment went smoothly, explained Westfall. “Nurses were already documenting the consumption screen and usage of supplies in Centricity Perioperative,” she says. “It was seamless for staff to start using the inventory module as well.”

“The system is easy to use. Even someone with no supply chain management experience can quickly be up and running with it,” adds Mario Lopez, operating room materials coordinator.

**ENSURING PROPER SUPPLIES ARE AT HAND**
Improved ordering accuracy helps ensure that medical staff have the right supplies available when they are needed in the Perioperative space. Additionally, nurses no longer need to stockpile supplies privately.

“We always have the right supplies on hand now,” Westfall says. “We no longer need to rush overnight orders or request supplies from other hospitals. The accuracy of the order has improved since we implemented the changes.”

Westfall cites an example of a surgeon needing a specific valve for a shunt he required for surgery. By checking the inventory log, Westfall was able to quickly locate two of them, and indicate their shelf location.

“He was amazed that we could find them so quickly just by checking the inventory on the system,” she recalls.

**REDUCING TIME REQUIRED TO MANAGE INVENTORY**
Before deploying the supply chain capabilities of Centricity Perioperative, staff typically spent two to three hours a day placing and validating orders or contacting other hospitals to obtain supplies.

Because the new system is automated and far more accurate, the time required to manage inventory has been reduced, to between 15 and 30 minutes a day. That allows staff to spend time on higher-value tasks, including providing nursing services. In addition, it has positive financial implications, leading to a projected, five-year cumulative benefit of $520,404 in productivity improvements.

**RIGHT-SIZING INVENTORY AND REDUCING COSTS**
By reducing over- and understocking and interfacing with the hospital’s materials management system, Northridge Hospital Medical Center has reduced the “par levels” of supplies—the stock of materials on hand to meet the hospital’s medical needs.

In addition to eliminating the private cache of supplies some nurses kept, the hospital has reduced the amount of supplies overall. Previously, some overstocked materials expired, meaning that the hospital paid for supplies that it never used.

“Prior to using the system, we never really knew what we had on our shelves until we did an annual inventory,” Westfall says. “Now we know exactly what we have in stock, and can order far more effectively.

“I know that we’ve had fewer items expire on the shelf since we implemented this,” she adds. “We used to pull dozens of expired items off of our shelves every month. We no longer do that.”

Previously, Northridge needed a substantial amount of space to store supplies. At one point, it hired a company to install new shelf racks for that purpose. Since deploying Centricity Perioperative to manage the supply chain, that space is no longer needed. It has now been reallocated to make room for a new operating room.

The bottom line for the project is a projected, cumulative five-year net benefit of $1,949,579, driven by more efficient inventory management and an increase in staff productivity. The project will have an ROI of 2753% and a payback period of seven months.

**IMPLICATIONS FOR PATIENT CARE**
Nurses can now spend less time looking for and ordering materials, and more time with their patients as a result of the deployment. Mario Lopez, operating room materials coordinator, believes that it has helped enhance patient care.

“As a nurse, you now know that when you come in, you have all the supplies for anything that might happen, for any scenario. That has to help,” he says. “And you don’t have to try and substitute for an item that a surgeon wants—you know that it will be right there when it’s needed.”

The charts on the following page provide more detailed financial information.
**PROJECT SUMMARY**

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<tr>
<td>Cumulative Net Value</td>
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**PROJECT COSTS**

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**BENEFITS**

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**FINANCIAL ANALYSIS**

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**Return on investment (ROI)** is the percentage return expected over a specified period of time. ROI is the total benefit divided by the total costs. This ROI metric is good for assessing the multiplier provided by the benefits relative to the total investment and costs.

**Payback period** (or breakeven) is the timeframe it takes for the project to yield a positive cumulative cash flow. Payback period is a key measurement of risk but does not take into account cash flows after the payback period.

**Net value** (or net benefit) is the benefit delivered to the organization for the investment made in the project. Net value is calculated by taking the total benefit minus the project costs.

ROI, Net value and payback should be used in conjunction to understand the rate, size and timing of the return.

The figures and calculations described above are provided for informational purposes only and are based solely on GE Healthcare’s prior experiences with Northridge Medical Hospital Center. Each hospital is unique and your facility may have specific facts and circumstances that are not reflected herein. The results and estimated results described above are not intended to be a representation or warranty from GE Healthcare. GE Healthcare accepts no liability for the consequences of any actions taken on the basis of the information provided herein.

This case study was completed in October 2012. The benefits in years 1 and 2 are realized benefits. The benefits in years 3-5 are projected based on the assumptions stated above.

Cumulative Net Benefit

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Cumulative Five-Year Net Benefit = $1,949,579

- **Productivity Improvement 26%**
- **Inventory Savings 74%**
About GE Healthcare
GE Healthcare provides transformational medical technologies and services that are shaping a new age of patient care. Our broad expertise in medical imaging and information technologies, medical diagnostics, patient monitoring systems, drug discovery, biopharmaceutical manufacturing technologies, performance improvement and performance solutions services help our customers to deliver better care to more people around the world at a lower cost. In addition, we partner with healthcare leaders, striving to leverage the global policy change necessary to implement a successful shift to sustainable healthcare systems.

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GE Healthcare
540 West Northwest Highway
Barrington, IL 60136
USA