

## OR Business Performance

# Taking small steps to control supply costs yields a much better bottom line

*OR Business Performance is a series intended to help OR managers and directors improve the success of their business.*

**S**urgical supplies are a major cost category for hospital ORs. Depending on the specialty and the procedure, supplies may represent 50% or more of total costs per case. Unfortunately, new product development, physician preference, and vendor price inflation are placing steady upward pressure on supply spending.

Although reducing supply costs is difficult, even a modestly successful effort can significantly cut overall spending. We recently worked with a mid-sized to large surgery department in an academic medical center. Supply costs per case were approximately \$300 above the median for like hospitals. Implementing a few simple supply and vendor management strategies would cut the hospital's annual supply spending by \$5.2 million.

Many ORs stock thousands of low- and mid-priced supplies, and getting a handle on which items are actually necessary and how they are used can make a big difference in your bottom line. Here are some supply management strategies that can yield positive results.

### Trim preference cards

A significant portion of excessive supply spending is related to surgeon preference cards. Cards that are not updated regularly often include supplies that surgeons rarely use. Case cards can also include high-cost preference items for which less expensive substitutes are readily available.

OR managers can trim excessive supply costs by systematically analyzing and rationalizing preference cards. Begin by selecting a procedure with a high chance of success—for example, a high-volume surgery with significant variation in supply costs. Ensure that supply prices are included on all preference cards. Print procedure preference cards for each surgeon and compare preference items:

- Identify the total supply cost of each card, and look for variations across providers. (Procedure preference costs can differ by a factor of 3.)
- Examine cost variations within categories. (Why does Dr Smith request a \$275 trocar when Dr Brown and Dr Jones use a similar device that costs only \$150?)
- Identify items that are rarely or never used. (Changing practice patterns may not be reflected in poorly maintained cards.)
- Present the results to surgeons. Ask them to remove unused supplies and consider substitutions for high-cost items. Applying this process successfully to a high-cost surgery will provide a strong impetus for tackling other procedures.

Once you have rationalized preference cards, create a process to ensure cards are continuously updated. At 1 hospital we worked with, approximately 40% of case supplies were returned to the supply room because of preference card inaccuracies. This figure represents not only supply waste but also high labor costs (with staff picking and then re-picking supplies) and case delays (with circulators leaving the OR during surgery to retrieve needed supplies). Document the process for review-

ing and maintaining preference cards, and assign nursing responsibilities. Standardizing preference card format and nomenclature will improve workflow.

Apply the same rationalization process to custom supply packs. Custom packs can increase efficiency, but they present the same cost risks. Periodically examine all custom packs for high-priced supplies and rarely used items. For packs provided by an outside supplier, create a process for conveying updates to the distributor.

### Cut waste

Intraoperative waste is another major source of high supply spending, and nurses need to become aware of the cost of supplies and appropriate use.

Typically, staff will open a wide variety of supply items in order to be ready to respond immediately to surgeon requests. Unused disposable items must be discarded and reusables must be reprocessed, leading to high costs. Careless handling can also be a problem. Mistakes do happen, but the more items are dropped or inadvertently placed in an unsterile field, the higher supply costs will be.

First, educate nurses about supply waste. Emphasize that it takes just 10 seconds to open a sealed supply item—an acceptable time frame for most procedures. You can also “hardwire” more cost-effective processes into practice patterns by moving seldom used items from the preference card “open” list to the “have available” list.

Educating staff about supply costs is another way to build a sense of stewardship for OR resources. Most OR nurses don’t know how much supplies cost. We were able to increase cost awareness at 1 hospital by applying “price stickers” to supply items. Prices were expressed as simple 5-digit numbers in order to comply with vendor contracts that forbid price sharing (eg, the number “25500” denoted a cost of \$255). Almost unanimously, nurses expressed astonishment at the cost of simple supply items.

OR managers can hone waste reduction efforts by conducting waste audits. Document the supplies that are wasted during surgery. Periodically audit supply reports to identify products that are most at risk for waste. Investigate the root causes that are driving waste, and implement process changes to improve performance.

Waste can also take the form of supplies that are used but not charged by staff. To address this problem, OR managers should conduct periodic charge capture audits. Analyze supply reports to identify items purchased and items charged during a specified quarter (chart). Variances in purchased versus used items could indicate losses associated with improper charging. Work with staff to ensure effective supply use documentation and charge capture. Even for services that are paid under a global diagnosis-related group, capturing total costs is critical to managing expenses.

### Charge Audit Report

Item	Purchased	Used	Variance	\$/item	Loss
Screw, malleolar	86	48	38	205	7,790
Screw, cancellous	53	38	15	145	2,175
Screw, cortical	72	64	8	115	920
Screw, compression	24	22	2	240	480
<b>TOTAL</b>	<b>235</b>	<b>172</b>	<b>63</b>		<b>\$11,365</b>

Choose a supply category to audit. Determine the quantities purchased and used during the quarter. Any variance indicates potential lost revenue because of inadequate charging. The simplified audit example above uncovers significant potential losses in just 1 supply category.

### Inventory Turnover Analysis

	2010	2011	2012
Cost of supplies (annual)	36,247,000	39,609,000	42,596,000
Average inventory	5,410,000	4,890,000	4,630,000
Inventory turnover	6.7	8.1	9.2

Inventory turnover is the ratio of the total cost of supplies for the year (numerator) to the average inventory on hand (denominator). Most organizations use the annual physical count and inventory valuation in place of an average inventory.

## **Watch costs**

Managing upfront costs can also reduce the amount of money spent on supplies.

One key strategy is to standardize products as much as possible. In general, hospital ORs can access better pricing by increasing a vendor's market share. Hospitals commonly use as many as 5 or more vendors for very similar items, whereas for many supplies, it is possible to use just 2 vendors. Physician preference can be an obstacle to vendor consolidation. However, keep in mind that standardization to 1 or 2 vendors is very common in physician-owned surgery centers.

While working on vendor standardization, make sure your OR is managing as much supply spending as possible through the hospital's purchasing department. Working through purchasing enables you to leverage the total buying power of the hospital, not just the surgery department.

OR managers should also take full advantage of the hospital's group purchasing organization (GPO) contracts when purchasing supplies. Spending tends to drift away from GPOs as non-GPO vendors introduce new products. To the extent that your OR is purchasing items off-contract, you are forgoing annual rebate percentages and likely paying higher rates. Periodically scrutinize spending for ways to channel more supply purchases to your GPO.

Watch all vendor contracts. Inappropriate price increases can sometimes slip into vendor invoicing. Periodically audit invoices to ensure invoiced amounts match contractual rates.

Another strategy for holding down costs is to use reprocessed supplies. Hospital ORs can typically save 50% to 60% by buying reprocessed items instead of new ones. Talk to your physicians; point out that reprocessed supplies are cleared by the Food and Drug Administration, individually tested, and arguably more reliable than new products that are only batch-tested.

## **Shrink inventories**

High inventory levels are expensive to maintain and increase the risk of product expiration and obsolescence. Reducing supply inventories can cut materials costs considerably.

The first step is to gain a better understanding of your current inventory. One key concept is inventory turnover. Higher turnover rates indicate leaner inventories and lower inventory costs. However, a very high turnover rate can signal that inventories are too lean, leading to problems with supply availability. In general, a rate of 10 to 12 turns per year indicates healthy inventory management.

To calculate inventory turnover, divide the total cost of supplies purchased during the year by the average value of supplies on hand at a given time. For most organizations, the latter figure can be based on the annual physical count and valuation. The "Inventory Turnover Analysis" chart illustrates how reducing inventory on hand increases annual turns, even as supply spending rises (chart).

Analyze the annual inventory report for potential excesses. Many ORs outsource the yearly physical inventory count. However, performing the annual count in-house with employed staff can be a very effective way to gain a better sense of your inventory.

Once you have accurate inventories, develop systems for managing the ordering process more effectively. First, establish par levels for each supply type. Staff tend to stockpile certain items to avoid running short, but this can lead to very high inventories. Use the information system to determine actual usage for each item, and add a safety stock and lead time margin to determine an appropriate reorder threshold. Establish an economic order quantity by balancing volume discount opportunities with holding costs.

Finally, create processes for maintaining the system. Assign staff responsibilities for maintaining stocks and managing reorders. The most advanced solution is to adopt a perpetual inventory system. Under this approach, the materials management information system continuously tracks supplies on hand and automatically triggers supply reorders when stocks reach predetermined thresholds.

**Just ahead**

Establishing better control over low- and mid-priced supplies is a detail-intensive effort, but it can significantly reduce supply spending. The next "OR Business Performance" column will present cost control strategies for surgical implants and other high-priced supplies and equipment. Effectively managing these expenses is the key to maintaining a healthy margin on your OR's important high-revenue procedures and strategic service lines. ❖

*This column is written by the perioperative services experts at Surgical Directions ([www.surgicaldirections.com](http://www.surgicaldirections.com)) to offer advice on how to grow revenue, control costs, and increase department profitability.*