

OR business performance

Orthopedic hospital uses 'price point' strategy to lower implant costs

Total joint arthroplasty volumes have ballooned in the last two decades, and reimbursement has not kept pace with costs. Rising implant prices are a major driver of hospital spending on these procedures. As the aging US population creates growing demand for joint replacement, controlling implant costs is becoming a top priority for OR leaders.

Some hospitals have sought to control implant costs through a demand matching strategy—carefully delineating which patients can receive which implants. While demand matching is a useful clinical tool, it has little ability to affect prices. The strategy may help ensure patients do not receive unnecessarily expensive implants, but the OR must still pay the prices set by vendors. In practice, gains achieved by limiting product usage can be eroded by vendor pricing adjustments.

Recently, an orthopedic specialty hospital in New York experimented with an alternative approach to controlling implant costs. Leaders used market data, price point ceilings, and a focused negotiation strategy to reduce average implant prices and total procedure costs.

Launching the project

The Hospital for Joint Diseases (HJD) is a Manhattan orthopedic specialty hospital that is part of the New York University (NYU) Langone Medical Center. As an academic medical center that performs up to 4,000 joint replacement procedures per year, HJD is ideal for testing implant cost control strategies.

HJD began focusing on implant costs 4 years ago. Working with NYU's supply chain analyst, clinical leaders calculated the average cost of knee and hip implants by procedure and by physician. Although costs were not excessively high, the data revealed an opportunity to reduce expenses. The data also uncovered a wide variation in implant costs between individual surgeons: approximately \$1,268 for knee implants and \$1,208 for hip implants.

In 2011, HJD launched an initiative to control implant costs through price negotiation. The goals of the initiative were to decrease the average cost of orthopedic implants and to decrease physician variation in implant costs.

Setting price points

The first step of the initiative was to establish standard prices for implant hardware. Clinical leaders used the hospital's historical cost data and industry-wide data from the University HealthSystem Consortium. They developed market-supported price points for four implant categories:

- routine total hip replacements
- routine total knee replacements
- high-demand total hip replacements
- high-demand total knee replacements.

The price points represented the reasonable charge the hospital was willing to pay for implants in each category. (Vendor contracts do not permit the disclosure of exact price information.) "Routine" denotes standard hardware that meets the physical de-

mand and longevity needs of most patients.

The HJD price point strategy differs from strict demand matching in key respects. Demand matching is the practice of matching implant types to the expected level of physical demand. This requires a decision matrix based on patient age, weight, activity level, health status, and other indicators. The premise of demand matching is that different orthopedic implants demonstrate different benefits.

In contrast, the price point strategy is based on the premise that clinical research—in most cases—does not demonstrate any patient benefit from more expensive hardware. “The research does not support the use of more than two demand categories,” says Joseph Bosco, MD, vice chair for clinical affairs at HJD and a leader of the hospital’s implant cost initiative. The expectation is that routine implants are appropriate for most patients.

Aligning surgeons

Surgeon support is essential to the success of a price point strategy. At HJD, clinical leaders made physician communication a priority. One goal was to educate surgeons on the economics of joint replacement.

“Usually, surgeons have no idea what the hardware components cost, and individual surgeons have no idea how they compare to other doctors in terms of costs,” Dr Bosco says. “We thought it was important to be transparent with the data, so we developed cost dashboards.” The quarterly dashboard reports quantified each physician’s average joint replacement costs (including implant costs) and ranked physicians against their peers in terms of costs.

Clinical leaders also communicated implant utilization expectations. “We made it clear that there was no incremental cost benefit to using high-demand, expensive components in every patient,” Dr Bosco says. “Any use of high-demand implants needed to be approved in advance.”

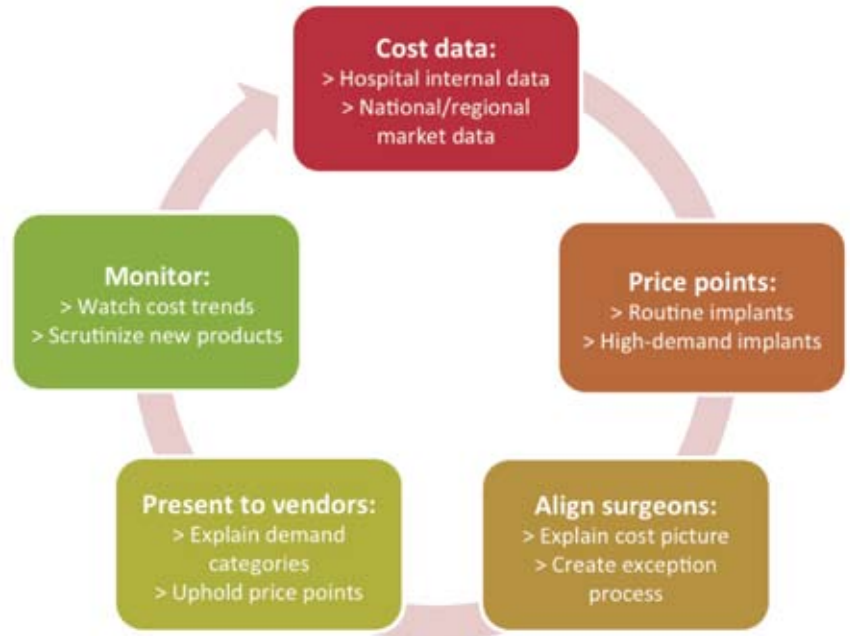
Getting approval

HJD created a straightforward review process. Surgeons must provide clinical justification for any patients they think require a more expensive implant. A surgeon committee reviews requests on a case-by-case basis.

Criteria include patient age, activity level, and anatomy, but exceptions are limited and well defined. For example, patients must be under age 55 or heavier than 300 pounds to be considered for a high-demand implant.

During the first year of the initiative, the most common reason for granting an exception was an anatomic variation that called for nonstandard hardware. A patient with hip dysplasia or an abnormally shaped femur, for instance, will often require a more expensive implant.

Price point strategy for orthopedic implants



The New York University Langone Medical Center Hospital for Joint Diseases, New York City, used market data to establish reasonable price points for joint implants. Surgeon support gave the hospital leverage in vendor negotiations, resulting in annual savings of more than \$2 million. Ongoing monitoring is helping the OR maintain cost savings.

Source: Surgical Directions.

Notifying vendors

Once price points were established and surgeons were on board, HJD presented the price point structure to implant vendors. Vendors were permitted to offer hardware products in each implant category at the category's specified price point. The message was simple: If you want to do business at our hospital, you must meet these price points.

According to Dr Bosco, the reaction was varied. "Vendors that were doing very little business at our hospital were happy to meet the price point," he says. "For them, it was an opportunity to expand their business with us."

In contrast, high-volume vendors resisted the new system. Some initially refused to adjust their pricing. "In these cases, we asked surgeons to switch temporarily to a different brand." After just a week or two of no sales, initially reluctant vendors agreed to sell hardware at HJD's new price points.

Reducing costs

During the first year of the price negotiation initiative, HJD surgeons performed 1,090 total knee replacements and 1,022 total hip replacements. The initiative reduced implant costs significantly:

- Average implant costs for total knee replacement decreased \$1,042, a reduction of 26%.
- Average hip replacement implant costs decreased \$876, a reduction of 22%.

The initiative also succeeded in trimming the variation in surgeon-specific costs:

- The standard deviation for knee implants was reduced by 50%—from \$1,268 to \$637.
- The standard deviation for hip implants was cut 65%—from \$1,208 to \$418.

Overall savings were dramatic. According to Dr Bosco, HJD saved just over \$2 million on joint implant hardware during the first 12 months of the initiative. Approximately half of this amount was returned to the orthopedic surgery department to fund research and education.

Considering pros and cons

Controlling the cost of orthopedic implants can help ensure the profitability of high-revenue joint replacement procedures even as reimbursement declines. Reducing physician cost variation can help predict procedure costs more accurately. This is key to enabling effective management of capitated contracts and bundled payments.

The four-category pricing structure is less complicated to implement and administer than a demand matching program. In addition, standardized pricing simplifies supply cost accounting.

One concern is the risk of alienating physicians. Will surgeons be frustrated if they can no longer use their preferred hardware products? The HJD experience shows that this risk can be effectively managed. Not only did HJD lose no surgeons as a result of the price point initiative, total case volume actually increased on a year-over-year basis. Employment status does not seem to be an issue. The orthopedic surgery faculty at HJD is split evenly between employed and independent physicians.

Will this approach block the entry of new implant technology that does not fit into the pricing schema? Dr Bosco believes that the price point strategy does not shut the door on innovation. Any premium implant that demonstrates patient benefit can enter the OR at the high-demand price point.

Going forward

Once a hospital has successfully implemented price point negotiation, the work is

not over. New product introductions and shifting market conditions create steady upward pressure on implant prices. "To be successful at this, you need to monitor your program continuously," Dr Bosco notes. Periodically recalibrating price points is key to maintaining long-term control of implant costs. ❖

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

Reference

Bosco J A, Alvarado C M, Slover J D, et al. Decreasing total joint implant costs and physician specific cost variation through negotiation. J Arthroplasty. 2014;29(4):678-680.

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