



NEWS RELEASE

Premier Inc. Analysis Finds Potential for Millions of Dollars in Savings in Total Joint Replacements

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New report finds some hospitals have price disparities up to \$1,500 per knee implant and \$1,700 per hip implant; opportunities to optimize use of anesthesia and bone cement, enhance workflow in operating room

CHARLOTTE, N.C.--(BUSINESS WIRE)-- Healthcare providers have made significant progress in enhancing the quality of care for total joint replacements. Widespread variation, however, in medical device prices and other resources still represents a major opportunity to reduce unnecessary costs for many hospitals, **according to a new analysis** of 869 hospitals from Premier Inc. (NASDAQ: PINC), a leading healthcare improvement company.

The analysis was published in Premier's latest **Margin of Excellence report**, which provides unparalleled, data-driven, evidence-based insights on inpatient and cross-continuum cost and quality improvement opportunities.

According to the analysis, which was conducted over a 17-month period (October 2015 to March 2017), Premier found improvements in length-of-stay for total joint replacement surgery, with the median falling to two days (50 percent of cases fell between 2-3 days). A subset of these hospitals also reduced length-of-stay by nearly one day over a five-year period. Additionally, 30-day readmissions rates were low for the procedures, with only 3.1 percent of cases readmitted to the hospital (9,956 out of 283,708 cases).

Large opportunities, however, exist to reduce variation in the costs for many of the primary hip and knee implants used for total joint procedures – ultimately helping providers drive greater savings and reduce healthcare spending. Researchers found providers paid significantly different prices for a range of hip and knee devices. In a more detailed examination of nearly 350 hospitals over the past year, Premier found:

- A \$1,500 difference between the top performing and bottom performing hospitals for knee implants.
- A \$1,700 difference between the top performing and bottom performing hospitals for hip implants.

If all hospitals were able to meet or exceed the top 25th percentile pricing and close the gap, Premier identified a savings opportunity of \$23.7 million for knee implants and \$19.1 million for hip implants.

“As total joint replacements are the most common procedures performed nationally, every component – from care delivery protocols to device acquisition costs – should be scrutinized for opportunities to improve overall margin,” said Robin Czajka, RN, service line vice president of cost management at Premier. “Implants have been more difficult to manage in terms of gaining transparency around pricing, but data and tools are available to help reduce variation and curb price discrepancies for high-value implants.”

Additional areas of resource and labor variation within the cohort include:

- Anesthesia: There remain large gaps in local and general anesthesia usage, as debate continues about which is better for patient care, with 22 percent of patients receiving local anesthesia versus 52 percent receiving general anesthesia. Additionally, with general anesthesia being more expensive than local anesthesia, there is an opportunity to curb spending if local anesthesia was more widely used within total joint replacement procedures.
- Operating room time: The highest-performing hospitals accounted for just over \$2,000 in labor spending in the operating room, compared to the lower-performing hospitals, which accounted for more than \$4,600 in operating room labor spend – signifying opportunities to enhance throughput within the operating room for total joint replacements.
- Bone cement: Bone cement with antibiotics is more expensive than without, yet research does not clearly indicate these products demonstrate greater effectiveness in improving patient outcomes. Standard bone cement was used in 39.8 percent of patients studied, while 29.8 percent received bone cement with antibiotics. Bone cement with antibiotics costs 120 percent more per patient than without antibiotics (\$618 versus \$280).

More than 75 percent of healthcare leaders cite optimizing the use of high-value implants and other physician preference items as a top priority to address margin cost improvement, according to a recent Premier C-suite survey. The cost and quality trends spotlighted in the recent Margin of Excellence report enables providers to compare performance against peers and identify potentially unjustified variation, as well as drill down to contributing institution-, service line- and physician-level sources of higher costs.

Hospitals that achieved the lowest implant costs shared the following best practices to secure optimal pricing:

- Cleanse and understand data for a full view into hip and knee device costs.
- Benchmark pricing against peers to examine price variation for implants.
- Conduct a thorough analysis with a data expert who understands the health system's culture, trends, surgeon preferences and vendor relationships to help develop a realistic approach to pricing and savings opportunities.
- Get surgeons on board with data to align on goals and ensure pricing parity is effective.

Examples of success in driving out variation around total joint costs include:

- Wake Forest Baptist Medical Center (Winston-Salem, NC) leveraged Premier's cross-reference benchmarking, data analytics and advisory services to achieve improved pricing parity across suppliers, generating \$775,000 in savings on total joint devices.
- Bayhealth (Dover, DE) targeted implant costs specifically associated with total hip replacement and total knee replacement procedures and worked closely with their orthopedic service line to implement a projected savings of more than \$1.1 million on typical procedures.

Premier's Margin of Excellence reports provide a detailed view on cost and quality trends across the continuum, as well as share insights on evidence-based strategies and tools designed to tackle inefficiencies in healthcare, ranging from variation in clinical practices to resource utilization. The analyses tap Premier's robust integrated performance improvement platform PremierConnect®, linking clinical, financial and supply chain data. Results are leveraged by providers seeking to pinpoint areas of improvement by comparing their performance to national peer data.

Methodology

Premier researchers reviewed blinded inpatient data from 869 facilities, representing more than 283,000 patient discharges over a 17-month period (October 2015 to March 2017) to examine variation in care delivery and resource costs within total joint replacements. Additional sub-analyses examined length-of-stay and implant device pricing.

About Premier Inc.

Premier Inc. (NASDAQ: PINC) is a leading healthcare improvement company, uniting an alliance of approximately 3,900 U.S. hospitals and health systems and approximately 150,000 other providers and organizations to transform healthcare. With integrated data and analytics, collaboratives, supply chain solutions, and consulting and other services, Premier enables better care and outcomes at a lower cost. Premier, a Malcolm Baldrige National Quality Award recipient, plays a critical role in the rapidly evolving healthcare industry, collaborating with members to co-develop long-term innovations that reinvent and improve the way care is delivered to patients nationwide.



Headquartered in Charlotte, N.C., Premier is passionate about transforming American healthcare. Please visit Premier's news and investor sites on www.premierinc.com; as well as **Twitter**, **Facebook**, **LinkedIn**, **YouTube**, **Instagram** and **Premier's blog** for more information about the company.

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