

Doubling Surgical Implant Savings

A Carisk® Partners Case Study

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Implant prices vary greatly. Reducing the price of surgical implants and increasing uniformity in costs may translate to extensive long term savings.

This white paper analyzes surgical implant cost containment challenges, industry cost containment programs, and a recent case study of savings achieved through Carisk's Surgical Implant Management Program

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Combating the Rising Costs of Surgical Implants

About 1.62 million instrumented spinal procedures are performed yearly¹ and can be extremely costly. According to the [American Spine Registry](#)², the fastest growing spine surgery in the past ten years was the lumbar spinal fusion surgery. It can cost anywhere from \$60,000 to \$110,000.

One of the largest costs in spine surgeries is surgical implants. The [Global Spine Journal](#) notes that surgical implants contribute most to the direct cost for instrumented fusions³. In addition to the high prices of spinal surgeries, there are other factors that can impact the cost of surgical implants. Variation in cost can be driven by something as simple as the instrument a surgeon chooses to use during a procedure. What hospital a patient chooses can also factor into cost, as some hospitals pay different prices for the same implants.

Implant prices can also vary due to manufacturer negotiated purchasing agreements coupled with limited awareness of true cost. Reducing the price of surgical implants and increasing uniformity in costs may translate to extensive long term savings.

Common injuries in workers' compensation already require procedures associated with higher costs. How can workers' compensation payers save client money while also getting patients the surgical implants they need?

The following analyzes surgical implant cost containment challenges, industry cost containment programs, and a recent case study of savings achieved through Carisk's Surgical Implant Management Program.

Challenges with Surgical Implant Cost Containment

The cost of a surgical implant alone can be the largest expense associated with a surgical procedure. Surgical implants account for a large share of total cost and reimbursements to healthcare facilities. However, the true cost of surgical implants billed to the insurance carrier by the healthcare provider vary widely — even for the same implant.



Some of the challenges for insurance carriers in evaluating surgical claims and predicting amounts needed for reserves include:

- **Provider, vendor, and facility:** There can be negotiated contracts between implant vendors, healthcare providers, and facilities that cause medically unnecessary price increases. For example, hospitals generally have stronger purchasing power in comparison to ambulatory surgery centers.
- **Unpublished costs and pricing limits** can blind negotiations between insurance companies, hospitals, and manufacturers.
- **State-by-state guidelines:** Some states are attempting to gain control of workers' compensation surgical implant costs in claims, however, there are still a variety of coverage and reimbursement strategies utilized. Hospital rates for outpatient surgery paid by workers' compensation vary significantly across states. States with fixed fee schedules have lower surgery costs for injured workers. Hospital payments vary significantly across states and can also vary in the difference between average workers' comp payments and Medicare rates. In workers' compensation, the required paperwork and the manner in which a claim is administered can be different.
- **Complex and varied supply chain:** Variable markups and widely inconsistent provider billing practices make identifying and containing the costs of surgical implants challenging. The result is a wide range for the amounts billed on the same implants to the insurance carriers.

Common Red Flags Identified Through Data Analysis

While most physicians and facilities work ethically to submit accurate claims, organizations must still protect themselves from engaging in abusive practices and violations. The CMS (Centers for Medicare & Medicaid Services) defines types of improper payment under its Fraud, Waste and Abuse program.

In workers' compensation, each state has its own oversight body that sets rules and regulations. The required paperwork and the manner in which a claim is administered can be different. In recent years, the workers' comp industry has seen a shift to cost containment programs offering bill review, denial, and appeal negotiations.

Improper Payment Types			
Error <i>(Mistake)</i>	Waste <i>(Inefficiencies)</i>	Abuse <i>(Bending the Rules)</i>	Fraud <i>(Intentional Deception)</i>
Mistakes made or incorrect coding.	Inappropriate utilization and/or inefficient use of resources resulting in waste. Medically unnecessary service or supply Inappropriate or inefficient use of resources	Bending the rules. Improper billing practices such as misuse of codes Upcoding and unbundling Excessive Charges	Intentional deception. Billing for services and/or supplies that were not provided The majority of providers and suppliers are honest and want to do the right thing, however, billing for services or supplies that were not provided results in fraud.

Limited Knowledge

According to a study in [Clinical Orthopaedics and Related Research Journal](#)⁴, more than ½ of orthopedic doctors responded to a survey on implantable medical devices, and rated their knowledge as poor. The study continues on to mention that orthopedic surgeons' knowledge of surgical material price can be crucial to cost containment.

[Medical Cost Reimbursement](#)⁵ in Minnesota's Workers' Compensation System noted that hospitals generally refused to give information about marked-up surgical implants. The documentation provided from insurance companies indicates mark-ups of up to 500%.

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Cost Containment Programs Differ Greatly in Their Approaches

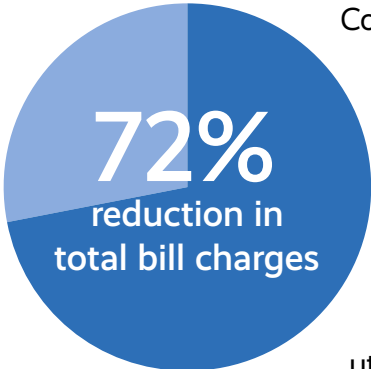
Traditionally, workers' compensation payers go through rounds of denials and appeals in an effort to reduce costs. Standard business practices vary among service providers. From negotiation to claimed data-driven solutions, there is a varied level of cost savings.

Recently, some workers' comp service providers have questioned if a bottom-up versus a top-down approach would yield better savings in comparison to standard industry tactics. However, keep in mind that quantitative analysis is only one part of the equation. A combination of best practices includes data analysis from leading sources and a transparent analytical review of each individual case. This method may provide the most accurate pricing for surgical implant devices and provide 100% indemnification for cost savings.

Recently, Carisk examined claims and savings achieved for a top 5 national payer. Carisk had the opportunity to compare their results with the payer client to that of the previous vendor.

Carisk Surgical Implant Cost Containment Program

In one spine related surgery with total implant charges of \$172,263, a Carisk client saved \$48,000 in surgical implants in comparison to savings achieved with their previous vendor.



Carisk takes a detailed approach to cost containment. Utilizing a combination of best practices, Carisk provides for the most accurate way to maximize savings on surgical implant devices. Carisk best practices includes data analysis from leading sources, and research/analysis of state-level guidelines and benchmarks.

Combining over 10 years of claims, medical review, and underwriting experience, the Carisk approach keeps in mind challenges surgical implant cost containment faces. It includes jurisdictional and state-level fee schedule expertise while navigating guideline complexities. Fraud, waste and abuse forensic auditing is utilized to ensure ethical compliance.

Carisk monitors provider billing trends, like consistent overcharging or abuse triggers.

Additionally, the Carisk approach can predict implant cost pre-surgery for real-time cost validation. Carisk provides cost transparency with provider and facility, and has a <1% provider push back rate.

Overview of Services

Implant Related Cost Benchmarking Program Benefits

Carisk has access to real-time data of over 115 million claims lines and over \$40 billion in charges from payers, ASOs, and EOBs. Additionally, Carisk’s database access includes over 1.5 million unique device and serial number specific implants, over 4 million price points, and vendor/reporting facility data.

What is the Carisk approach?

Carisk takes an in-depth approach to surgical implant claim review, ensuring each individual bill receives maximum savings. With exclusive access to a proprietary database and a unique network of medical implant manufacturer resources, Carisk performs forensic analysis. Offering a white glove service level approach, the Carisk program ensures accuracy in bill review providing easily defensible repricing.

Carisk’s Surgical Implant Management Program:

- Detailed forensic analysis with white glove service level
- Proprietary Database
- Network of Medical Implant Manufacturer Resources
- Expertise in Fee Schedule and guideline application
- Fraud, waste and abuse analysis
- Provider billing trend monitoring
- Predict implant costs pre-surgery
- <1% provider push back rate

Case Study

72% Reduction in Total Bill Charges for Spinal Cord Stimulation Procedure

Recently, Carisk analyzed savings achieved with their surgical implant management program for a top 5 national payer.

SCS is typically used after non-surgical pain treatment has failed to provide sufficient relief. SCS can improve overall quality of life by improving sleep and reducing the need for pain medicine. Spinal cord stimulators require two procedures to test and implant the device: the trial and the implantation. A SCS allows patients to send electrical impulses using a remote control when they feel pain. In this case, a SCS and generator are implanted.

Total implant charges billed in this specific case were \$172,000. After Carisk performed a forensic audit of the provider submitted charges, it was determined the allowable charges should be \$47,500. This reflects an overall reduction of \$124,700—which is 72% savings of total implant charges.

Through analysis and benchmark review of each line item, Carisk was able to achieve specific savings per CPT code itemized as follows. For CPT code 63685-RT which represents the insertion/replacement of the spinal neurostimulator pulse generator/receiver, the Carisk recommended allowance was \$5,229.64—reflecting a 94% reduction of \$74,955.53 from the provider billing of \$80,185.17.

CPT code 63655 represents charges associated with a laminectomy for the implantation of neurostimulator electrodes and plate/paddle. Carisk determined a recommended allowance of \$11,499.88—representing a 78% reduction—from \$52,078.11 in provider billed charges to \$11,499.88. That is a \$40,578.23 savings.

CPT code L8687 illustrates an implantable neurostimulator pulse generator. This bill shows provider billed charges of \$40,000. Carisk recommended allowance after review was \$30,820—reflecting a 23% savings of \$9,180.

Date of Service	Revenue Code	CPT Code	Implant Description	QTY	Provider Billed Charges	Bill Review Allowed	Carisk Reduction	Recommended Allowance
10/16/2019	490	63685-RT	INSRT/REDO SPINE N GENER	1	\$80,185.17	\$80,185.17	\$74,955.53	\$5,299.64
10/16/2019	490	63655	Implant NeuroElectrodes	1	\$52,078.11	\$52,078.11	\$40,578.23	\$11,499.88
10/26/2019	278	L8687	IMPLTNROSTM PLS GEN DUA	1	\$40,000.00	\$40,000.00	\$9,180.00	\$30,820.00
Totals				3	\$172,263.28	\$172,263.28	\$124,713.76	\$47,549.52

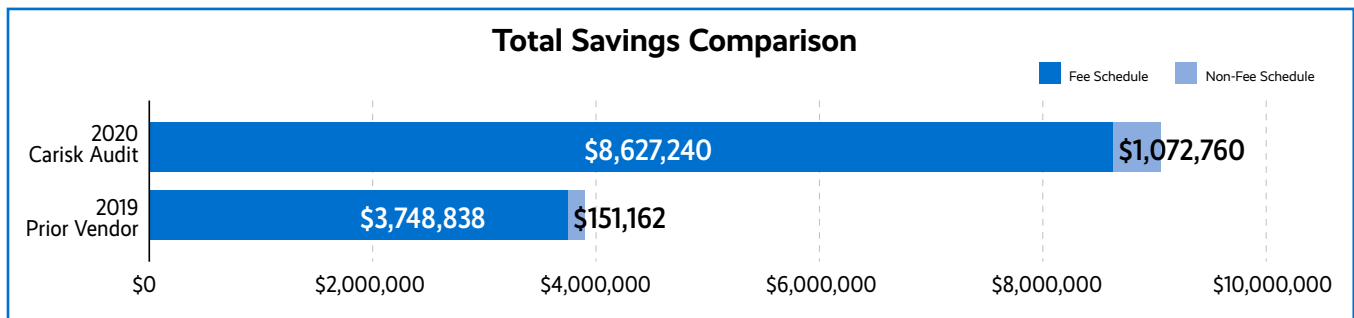
Overall Reduction in Surgical Implant Costs—2019 vs. 2020

Carisk examined total cost savings achieved with their Surgical Implant Management Program in comparison to the payer’s prior vendor results from 2019.

In 2020, Carisk was able to review over 1,000 total surgical implant bills between the months of January and October. The bills totaled almost \$14 million dollars in total billed implant charges. In 2019, the prior vendor had reviewed 777 bills totaling over \$11 million dollars in total billed implant charges between the months of January and December.

2019 Prior vendor results	2020 Carisk results
12 months of bill review referrals (January–December)	10 months of bill review referrals (January–October)
777 Total Bills	1,065 Total Bills
\$11.3M Total Implant Charges Billed	\$13.9M Total Implant Charges Billed

Total Surgical Implant Saving—2019 vs. 2020



2019 Prior vendor results
\$3.9M
35% Total savings from \$11.3M billed
151K (11%) savings produced out of \$1.3M in non-fee schedule states

2020 Carisk results
\$9.7M
70% Total savings from \$13.9M billed
\$1.1M (56%) savings produced out of \$1.9M in non-fee schedule states

Carisk Additional Savings
2.5X's
Additional Savings
\$920K 5X improvement in savings in non-fee schedule states

When analyzing total savings for all bills, Carisk saved \$9.7M out of a total \$13.9M in billed implant charges. This translates to 70% savings for the client as of October 2020. The previous vendor saved the client \$3.9M in total billed implant charges for the full calendar year—reflecting a 35% total savings for the prior vendor.

Carisk saved over \$5.8M more in total savings for the client in comparison to the prior vendor’s results from 2019. When compared to the prior vendor’s full calendar year of 2019, Carisk obtained more than double the total savings through October of 2020.

For non-fee schedule states, Carisk achieved a savings of \$1.1M out of \$1.9M total charges billed, which is over 50% savings. That's \$920,000—which is a five times improvement in savings for non-fee schedule states compared to previous vendor. It's typical for implant review programs to save money for the client according to the fee schedule, however Carisk engages in further forensic auditing to analyze ways to save further under it.

Overall, the savings achieved with the Carisk program demonstrate the value of a comprehensive solution that works in allowing for appropriate implant reimbursement — providing significant savings to the client.

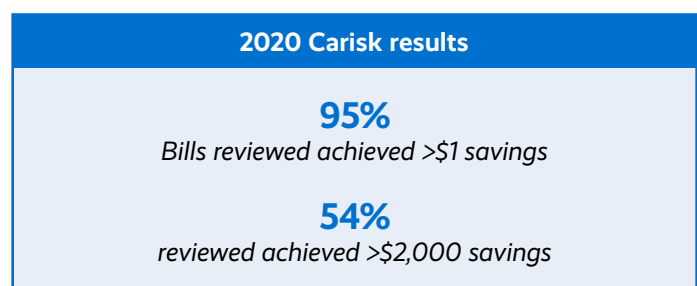
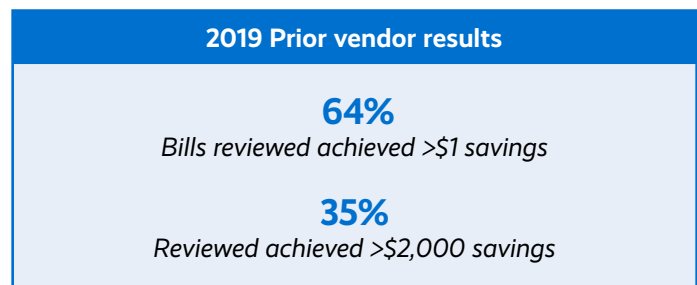
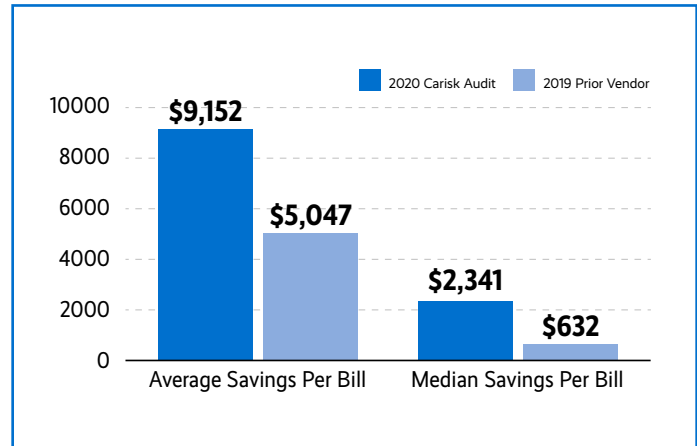
Carisk Achieved a 73% Improvement in Per-Bill Saving

Carisk's average savings per bill is \$9,152 compared to \$5,047 with the 2019 prior vendor. That's an average difference of over \$4,000 per bill reflecting 44% improvement in savings per bill on average.

Since averages include some outliers, this case study has also calculated the median savings per bill. Carisk demonstrated median savings of \$2,341 per bill in comparison to \$632 in prior vendor savings. That reflects a median of 73% savings improvement with the Carisk Surgical Implant Management Program.

While the median saving per bill is \$2,341, analyzing the data further illustrated that over 50% of the bills reviewed by Carisk achieved over \$2,000 in savings. 2019 prior vendor results showed 35% of bills reviewed obtaining over \$2,000 savings.

Carisk provides savings in 95% of total bills reviewed. That means that almost all the bills touched through the Carisk process have achieved some level of savings. With the prior vendor, 64% of total bills showed savings.



Carisk Savings Achieved in 2020 vs. 2019 Prior vendor — Four Key Body Part Groups

	2019 Prior Vendor Average Savings	2020 Carisk Average Savings	Average Savings Difference	Average Savings Percentage Difference
Spine	\$14,692	\$31,223	\$16,531	53%
Ankle and foot	\$2,050	\$8,143	\$6,093	75%
Knee and lower leg	\$3,699	\$8,564	\$4,865	57%
Elbow and Forearm	\$2,126	\$5,042	\$2,916	58%

Workers' compensation sees a multitude of injuries in these four body groups. This case study included an analysis of surgical implant savings by body part.

Upon examining the data for spine-related surgeries, Carisk is able to achieve over \$30,000 average savings per bill in comparison to \$14,000 savings achieved by the prior vendor. That's an average difference of \$16,531 per bill. For ankle and foot related

surgeries, Carisk saved an average of \$8,143 per bill. That's almost four times an increase in comparison to the prior vendor savings of \$2,050. For knee and lower leg related surgeries, Carisk saved \$8,564 – more than doubling average savings in comparison to prior vendor savings of \$3,699. For the elbow and forearm related surgeries, Carisk saved the client \$5,042 on average – more than doubling savings over the prior vendor.

Concluding Thoughts

In order to achieve maximum savings for surgical implants, a thorough understanding of the intricacies of supply chain is necessary. This includes manufacturer negotiated costs, detailed and itemized forensic analysis by CPT code combined with an expertise in understanding fee schedule and guideline application. As demonstrated in the case study, Carisk commits to exceeding service level expectations and delivering significant savings its clients are due, while fairly compensating the facility and provider for implant-related costs.

The Carisk Surgical Implant Management Program delivered over \$5.8M in total implant savings from January - October 2020, and those savings continue to grow.

How to Learn More:

To learn more about how Carisk can help you improve savings on your implant-related costs, contact Tom Downey at: Thomas.Downey@CariskPartners.com or by phone at (732) 809-2672.

Sources

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