

ProcedureProfiler Helps Reduce Costs and Improve Protocols for Saint Luke's Health System

Background

Saint Luke's Health System of Kansas City needed a better way to integrate supply chain information with clinical practices through their central line associated bloodstream infection (CLABSI), Biosurgery and Spinal Cord Stimulation (SCS) initiatives to help control costs and achieve the best clinical outcomes.

With 10 hospitals and 312 non-acute locations across Kansas and Missouri, tying all that information together is no small feat. Saint Luke's needed a powerful data analysis engine to identify and assess potential solutions and provide accurate, unbiased information for the various stakeholders.

Challenge

The Saint Luke's team, led by Vice President of Supply Chain Michael Darling RN, MS, CMRP, needed information about supply utilization and standardization across service lines and locations to identify opportunities for improvement and begin implementing changes. These areas of opportunity extended to supply chain, but also needed to include clinical practices, which meant analyzing clinical data in conjunction with supply cost data.

Gathering information for the three initiatives and implementing changes required targeted collaboration among multi-disciplinary teams of physicians, nurses and other stakeholders to reduce non-value-added services, improve patient outcomes and reduce unintended variability in clinical practice and coding.

Each initiative presented its own unique challenges. CLABSI was costing the healthcare system almost \$1.6 million annually, but the team needed actionable data to pinpoint whether supply utilization or clinician protocols were the best way to improve patient outcomes and the associated costs for the

hospital system. Biosurgery needed to identify which products and vendors could be trimmed for maximum financial impact while keeping clinicians informed and involved in the process. The SCS contribution to overall system profitability needed closer inspection to determine what was causing its variability.

Solution

Saint Luke's utilized BroadJump's ProcedureProfiler™ to provide critical data analysis and insight across the three projects. ProcedureProfiler, a powerful online research application, provides visibility from the individual procedure down to the DRG, CPT and ICD code levels. The BroadJump development team worked closely with Saint Luke's to tailor the application to the hospital system's unique needs across all locations, then leveraged Saint Luke's clinical and supply chain data to identify relevant opportunities. ProcedureProfiler uses regular data uploads from Saint Luke's to provide information about product utilization, by clinician, for each procedure code across all hospitals within the Saint Luke's system. It also tracks clinician information, including procedure time, recovery time and discharge results.

The Saint Luke team saw from ProcedureProfiler that the best area of focus for CLABSI was product utilization, specifically central lines, chlorhexidine gluconate wipes and port protectors. Clinicians were directed to increase the usage of wipes, foam and port protectors. Although increased utilization meant increased cost, the supply management team used the information from ProcedureProfiler to drive cost negotiations with suppliers.

In the biosurgery service line, the Saint Luke's team compared market share, pricing, and manufacturer price variance for absorbable hemostats and sealants within the ProcedureProfiler application. They decided on manufacturer standardization as a way to reduce costs and used ProcedureProfiler's clinician utilization data to provide additional coaching and education for clinicians with higher utilization of competitors' products as the hospitals switched to new brands.

The spinal cord stimulation solution involved both materials utilization and protocol standardization. The ProcedureProfiler application, together with case by case review, revealed significant utilization variance for key materials, with no difference in clinical outcomes. The variance also highlighted a particular surgeon whose utilization was outside the norm across all other locations. Additionally, the team identified coding discrepancies that had a negative impact on reimbursements.

Results

ProcedureProfiler provided critical insights into utilization and standardization opportunities across supply chain and clinician practices. Changes implemented across all service lines made significant contributions to Saint Luke's financial health, with approximately \$1.6 million in annualized savings in



2017. Most importantly, the application's online interface empowered Saint Luke supply chain managers and service line executives with accurate, visible, actionable data to share with vendors and clinicians.

The CLABSI group actually increased product spend by \$34,000, but the increased spend, coupled with changes to protocols and utilization, decreased CLABSIs by 57 percent. The impact to patient outcomes is significant, and the financial impact to Saint Luke's totaled nearly \$1 million in annualized savings.

In Biosurgery, Saint Luke's standardized vendors across all locations, going from five to two. In addition to better control over utilization and increased visibility into procedural protocols, the health system's annualized savings on supply spend is approximately \$300,000.

The impact in spinal cord stimulation was equally dramatic. The team showed ProcedureProfiler's physician drill-down capability to the surgeon who was outside typical utilization. Once he saw the variance, he immediately changed protocol, which brought utilization back within range. That single change created over \$250,000 in annualized savings. With additional changes to identified procedures and coding, SCS's annualized savings totaled more than \$318,000.

Saint Luke's is now positioned to monitor and measure their initiatives for CLABSI, biosurgery and SCS across all locations. The health system plans to add pharmaceutical data to its ProcedureProfiler usage and expand access to the application to its value analysis teams, helping the entire system identify process and pricing improvements while continuing to improve patient care.

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