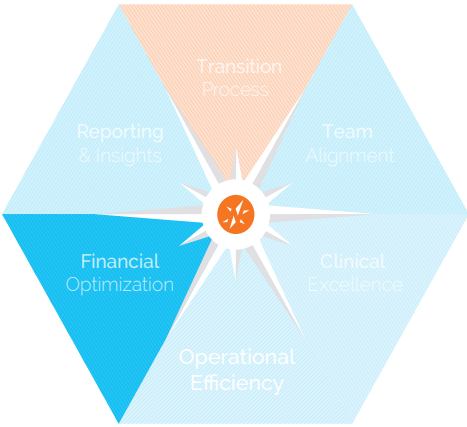







Case Study: Standardizing Drug Use Leads to Financial Turnaround for Anesthesia Services



Adoption of new anesthesia drug protocols reduced the hospitals’ drug spend without sacrificing quality of care.

The prescription for rehabilitating anesthesia services at Saint Vincent Hospital is reducing costs and increasing revenues while maintaining the high quality of care provided to patients.

Under the contract, which went into effect in July 2014, NorthStar employs the 11 anesthesiologists and 45 CRNAs who provide anesthesia services at 21 points of care, such as operating rooms and ambulatory surgery suites, at Saint Vincent Hospital. NorthStar uses a care team-based model under which anesthesiologists oversee the work of up to four CRNAs per shift to administer anesthesia during 16,500 surgeries and 3,000 obstetrics procedures, including epidurals and cesarean sections, per year at the 283-bed facility.

DMC by the Numbers	
	Points of care: 21
	Anesthesiologists: 8
	CRNAs: 29

When NorthStar took over responsibility for anesthesia services, managers focused on two opportunities to improve daily operations at the hospital:

- Reducing the cost of anesthesia supplies and medications by standardizing the most cost-effective and high-quality options.
- Generating new hospital revenue by automatically tracking and billing patients and their insurers for the anesthesia medications that were used during their procedures.

Solution

To improve both the culture and operating efficiency in anesthesia services, NorthStar implemented numerous changes in the way the hospital managed anesthesia medications and supplies.

First, NorthStar managers educated anesthesiologists and CRNAs about the need to think about the value— the cost and quality—of the anesthesia supplies and medications that they use every day. “It takes leadership, and showing everybody that they should be thinking about the cost structure. This isn’t a decrease in patient care in any way. It is an improvement in patient care,” says Dan Cook, M.D., regional medical director for NorthStar’s Northeast Region.

For example, NorthStar’s clinicians now use propofol rather than remifentanyl, a narcotic, to sedate patients for many procedures, particularly in ophthalmology and gastroenterology. Dr. Cook says propofol is less expensive than remifentanyl (about \$2 per surgical case versus about \$10 per surgical case) and also typically does not cause nausea and vomiting, which are common side effects from narcotics.

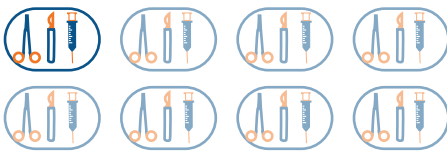
Second, NorthStar adopted standard processes to control how anesthesia services add new supplies and medications to its inventory. Under the former process, staff members contacted pharmacy or materials management any time they wanted a new

item added to inventory. Under NorthStar, those requests are first evaluated by the chief anesthesiologist and chief CRNA and then brought before the group to discuss. On the revenue side of the equation, NorthStar’s managers persuaded Saint Vincent Hospital executives to invest in 21 automated medication dispensing systems for anesthesia — or one for each point of care. The automated dispensing systems include a cabinet to store enough medications for a full day of surgeries and a computer workstation. To unlock and remove medications from the cabinet, anesthesiologists and CRNAs must first assign them electronically to a specific patient.

In the past, Saint Vincent Hospital had not billed patients or their insurers for anesthesia medications because the hospital did not have a reliable way to track what medications were used for which patients. “They were just losing money on every single case,” Dr. Cook says.

Third, NorthStar managers worked with their counterparts in Saint Vincent Hospital’s pharmacy and materials management departments to standardize on the most cost-effective and high-quality medications and supplies. Some examples include:

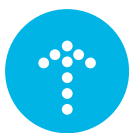
- Lidocaine, a local anesthetic. Anesthesia staff had been using Lidocaine in premeasured jet syringes—which are designed for emergency use—for nearly every procedure. Now, the staff draws the medication out of a vial before using it during routine procedures. The vials, which cost about 70 cents each, are much less expensive than the jet syringes, which cost between \$5 and \$7 each.
- Laryngeal mask airway, or LMA, which keeps airways open in a patient while they are sedated. Before NorthStar arrived, the anesthesia staff used about eight different masks, ranging in price from \$8 to \$28. “There were so many types that were lying around—purchased and not utilized. The staff used the ones that worked well, and they tended to be the cheaper ones,” Dr. Cook says. NorthStar now stocks a maximum of three types of masks.
- Epidural trays. NorthStar reduced the number of type of trays it stocked from eight to one.



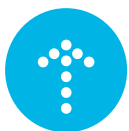
Results

The changes in drug selection, use and billing protocols have produced significant results. For example, NorthStar improved annual savings for the hospital of approximately \$500,000 by reducing the numbers and types of anesthesia medications and supplies in inventory.

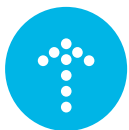
As Saint Vincent Hospital adapts to new value-based reimbursement models that pay for services based on outcomes rather than on the volume of those services, improving operating efficiency in anesthesia services is becoming even more important than it was in the past.



Documentation of medications increased



Cost-effectiveness of medications increased



Approximately \$500,000 saved