Joint MD-RN team drives results for an orthopedic service line model

A n orthopedic service line has seen its volume rise and complications and costs go down since its surgical services director and chief of orthopedic surgery took the helm. Together, they have found they can drive change. It’s an example of new types of collaborative arrangements hospitals are exploring with physicians.

When trustees at St. Joseph’s Hospital Health Center in Syracuse, New York, decided to develop service lines, they had to decide which of their main services should be the pilot.

Orthopedics quickly rose to the top. “We already had a continuous quality improvement (CQI) group for orthopedics,” says Kimberley H. Murray, RN, MS, CNOR, director of surgical services at St. Joseph’s and codirector of the orthopedic service line. And the hospital had a ready-made physician champion in surgeon Seth S. Greenky, MD, an active CQI participant, chair of orthopedic surgery, and codirector of the orthopedic service line. Toss in the hospital’s home care and physical therapy, and the choice was clear—orthopedics got the call.

MD, RN codirectors

The service line model Murray developed for St. Joseph’s has codirectors: Dr Greenky as medical director and Murray as clinical director. The service line includes 3 surgical sites (12 inpatient ORs and 2 ambulatory surgery centers). More than 3,000 orthopedic procedures are performed annually.

Two years after implementation, the service line has seen reductions in lengths of stay, costs, complications, and blood utilization, as well as an increased surgical volume.

Achieving these results depends on a structure set up to overcome a common problem—difficulty in making changes.

Decision-making council

Dr Greenky and Murray lead the Orthopedic Governance Council, which sits at the top of the service line. This decision-making council reports to the chief operating officer (COO) and is also accountable to the Business Evaluation and Development Committee. Voting members of the council include Murray, Dr Greenky, the COO, the chief financial officer, and the data management director. An orthopedic clinical nurse specialist (CNS) is a nonvoting member.

“Kim and I run the service line,” says Dr Greenky. “The others may veto an idea, but we can do what we want within reason.”

Quicker pace to change

An Operations Council, led by the CNS, is where “our grand ideas are turned into operational plans,” says Murray.
Operations Council members come from all areas that touch orthopedic patients: the OR and the postanesthesia care unit staff plus representatives from community relations, decision support, coding and billing, purchasing, marketing, and communications.

Dr. Greenky is not employed by the hospital and has no financial interest in the program. So what motivates him?

“The real attraction is that normally you have to go through 20 layers in a hospital to accomplish anything,” he says. “The difference now is with the governance structure, once we have made a decision, everything gets done quickly. You can make changes incredibly rapidly and efficiently.”

St. Joseph’s has 1 major orthopedic surgical group, although the independent orthopedic surgeons also have input into the system. If another hospital were going to create a similar service line, Dr. Greenky recommends having representatives from each major orthopedic group.

**Putting data to work**

Data are at the heart of the service line. The governance council reviews a dashboard of service line indicators at each month’s meeting, with Murray and Dr. Greenky keenly aware of trends needing attention.

Murray says reviewing complications data and investigating documentation for coding and billing helped improve reimbursement.

“The medical record didn’t always reflect the actual patient’s condition,” she says. If, for example, a suspected urinary tract infection was found not to be present, but the documentation didn’t state that, it was coded as a complication. In addition, numerous entries by multiple consultants can make coding challenging.

“We wanted to attack the problem from multiple approaches and make it educational for coders and providers,” Murray says. She and Dr. Greenky put together a new process. On a daily basis, coders notify their supervisor of any coded complications. Next, someone from St. Joseph’s performance improvement department or the health information supervisor verifies whether a complication actually occurred. If not, the loop is closed, and a coding mistake is averted.

When the reviewer confirms a complication, Murray reviews the patient’s medical record. If there is a documentation error of omission in the chart, she works to correct it and notifies the coding supervisor so the coding and billing can be corrected. If Murray confirms a complication, Dr. Greenky also reviews it to verify a complication occurred.

Both coders and providers receive feedback that helps them to improve documentation and coding.

“We want the medical record to reflect the accurate care,” says Murray, “not over- or underdocumenting.”

**Product evaluation and standards**

Another way the service line saves money and promotes quality is through a product standardization committee that evaluates every orthopedic product.

As in many other hospitals, Dr. Greenky says the implant selection process is “painful.” When new products are requested, after the major manufacturers make a presentation to all surgeons, a 1-month trial for each product is conducted.

“Whatever companies survive the trial get the bid, and we take the lowest bid,” he says. “We don’t always get consensus,” he admits, so sometimes
**Hip Fracture Passport to Surgery**

**Target goal:**
To OR within 24 hours of diagnosis/arrival to ED

- Patient arrives in ED with signs and symptoms consistent with hip/femur fracture.
- Patient triaged.
- Hip/pelvis #34 fracture order set initiated (#13413).
- X-Rays taken within 30 minutes of triage.
- Hospitalist or internists if surgeon-admitted patient to facilitate surgical risk stratification.
- Preoperative diagnostic testing performed as needed.
- Fractured hip admission / presurgical orders initiated (#16587) by PA.
- OR contacted and patient added to OR schedule for following day.
- Patient risk - stratified for surgery or cardiology consult, if needed.
- Patient transported to OR; surgical procedure completed.
- Patient to 4-1 if bed available.
- If patient has an implanted cardiac device, or at the discretion of the hospitalist or primary care internist, cardiology consult obtained.

**Note:** **At any time along the process that a 4-1 bed becomes available, a transfer from ED will expedited.**

**PA should contact hospitalist for changes to the medical management plan of care for the patient.**

**Metrics to be tracked:**
1. % of hip fracture patients admitted to hospitalist service.
2. Time from request for ortho consult to patient consult.
3. Time from request for PA consult to patient consult.

*Source: St. Joseph’s Hospital Health Center, Syracuse, New York.*
a secondary company is added but only if it can meet the primary company’s price.

Standard patient care procedures from preadmission to well after surgery, along with patient education classes before surgery, have also helped streamline processes. The Hip Fracture Passport to Surgery is an example of an algorithm that has saved time, facilitated care, and improved outcomes (illustration, p 18).

**Tangible results**

Other orthopedic service line results include lower costs per patient for total joint replacement, fewer complications, reduced time from door to OR, and a shorter length of stay for patients with hip fractures.

Dr Greenky and Murray also started preoperative screening of elective orthopedic patients for anemia, combined with outpatient anemia management. The program served as a pilot for a hospitalwide blood management program. Managing anemia helps avoid transfusions, which have been linked to increased risk of infection and length of stay.

Of the 313 patients screened in 2008, 40% met the criteria for anemia. Treating patients preoperatively with epoetin alfa (Procrit or Epogen), IV iron, or nutritional counseling accompanied with intraoperative blood management with cell salvage and autotransfusion devices reduced blood utilization by 73% and saved approximately $41,000. From January to September 2009, 329 patients were screened. Of the 86 patients who received outpatient treatment for anemia, only 4 received a postoperative transfusion. The plan is to expand the program to include patients with hip fractures.

**Success breeds success**

Making orthopedics a service line raises its visibility, says Dr Greenky. The greater attention has some surgeons a bit envious. “We used to be all about cardiac surgery,” says Murray. “Now we have cardiac surgeons asking how they can get the attention orthopedics is getting.”

Even with minimal marketing, Dr Greenky and Murray credit the service line initiative with increasing patient volume (from more than 900 joint replacement surgeries in 2008 to well over 1,000 in 2009). As in many hospitals, St. Joseph’s marketing budget has been cut, but that didn’t stop the codirectors. They worked with a college student intern to design a website at www.sjhsyr.org/sjhc/stj_patient_ortho.asp

They also worked with the marketing department to create a cover story for *St. Joseph’s Caring Connection*, a staff and community publication. The story followed a patient through his knee replacement surgery. Local publications also carried articles about the service line.

The 2010 marketing budget has been boosted, which Dr Greenky attributes to the service line’s success.

“The hospital looks at these lines as money makers, so they want to make them as efficient as possible and keep quality high,” he says. “Administration is happy so they are more likely to give us what we want. It’s a self-fulfilling process.” Other service lines now include cardiac surgery and invasive cardiology, with vascular surgery in development.

Dr Greenky cautions that the model may not work as well with service lines such as pulmonary or gastrointestinal care because medical diagnoses are more unpredictable than surgical diagnoses.
True partnership brings success

Murray and Dr Greenky say their partnership is key to the service line’s success. Says Dr Greenky, “We feed off our successes.”

“We put hours and hours into this service line every month,” adds Murray. The hard work has paid off in other ways. Orthopedic surgeons have come to St. Joseph’s because of the program. The service line provides continuing medical education programs to help retain and recruit surgeons and continuing education programs to support nurses.

Dr Greenky says picking the two co-directors is the most important step in developing this type of model. “The success is because of the dynamic between us and the passion and commitment we have to it,” he says.

—Cynthia Saver, RN, MS

Cynthia Saver is a freelance writer in Columbia, Maryland.

Responsibilities of medical director for orthopedic service line

- Provide direction and leadership in the planning, development, implementation, and evaluation of the orthopedic service line process as well as with the overall goals and objectives of the program.
- Provide direction and leadership in the development and growth of a high-quality market-competitive program.
- Support and collaborate with other medical staff to promote “best practice” care delivery.
- Assist with the planning and evaluation of equipment, supplies, and new products and services.
- Assist with needs assessment, recruitment, selection, and continuing education to ensure quality, cost-effective care.
- Contribute clinical knowledge, insight, and leadership in the development of marketing and business plans for the program.

Source: St. Joseph’s Hospital Health Center.

Dashboard indicators

**Inpatient volume**
- Hip replacements
- Knee replacements
- Hip fractures
- Other trauma
- Total service line

**Service line case weight**
- Percent Medicare
- Percent commercial insurance
- Percent from Onondaga (county where St. Joseph’s is located)
Clinical effectiveness
- Hip replacement ALOS (average length of stay)
- Knee replacement ALOS
- Hip fracture ALOS
- Service line ALOS
- Pneumonia & lung infections*
- Posthemorrhage*
- Percent discharged to home

Expiration
- Observed mortality
- Risk-adjusted mortality (O/E)

Clinical efficiency
- Expected reimbursement per case
- Expected payment per case
- Expense per case
- Contribution margin per case
- Operating margin per case
- Contribution margin
- Operating margin

Patient satisfaction
- Overall
- Nursing
- Physician
- Likelihood to recommend hospital

Competition (Syracuse Hospitals)
- % Hip replacement
- % Knee replacement

*Rate per thousand discharges.

Notes
1. 2008 risk-adjusted mortality based on 2007 expected values.
2. Margins computed using expected payment.
3. Patient satisfaction and competition data represent average of quarterly results.
4. Hip replacements include hip fractures requiring the procedure; hip fracture data exclude cases requiring hip replacement.

Source: St. Joseph’s Hospital Health Center