

Pain management

Avera McKennan finds innovative strategies to address orthopedic pain management

Postsurgical pain scores are highly correlated with reports of overall patient satisfaction during hospital stays, according to a poster presented at the 2014 American Academy of Pain Medicine annual meeting.

Dermot Maher, MD, and his colleagues from Cedars Sinai Medical Center in Los Angeles examined patient responses on HCAHPS (Hospital Consumer Assessment of Healthcare Providers and Systems) surveys of 2,933 surgical patients who were hospitalized at a single trauma center between March 2012 and February 2013. Questions assessing satisfaction with in-hospital pain management and general satisfaction showed a statistically robust relationship when compared retrospectively with patient pain scores as assessed via the postanesthesia care unit visual analog scale.

Additionally, in a 2013 survey of members of the National Association of Orthopaedic Nurses, 43% of respondents said patients undergoing joint replacement are less prepared for pain management than for home care tasks, changes in mobility, insurance paperwork, or planning for different discharge options.

Now that hip and knee arthroplasty has joined the list of readmission measures for which hospitals will be penalized in the future, it's more important than ever to anticipate potential postoperative complications (see OR Manager, June 2014, p 5). Coordination of care among all departments, including preoperative, intraoperative, and postoperative care, will be necessary to prevent readmissions.

Impetus for improvement

Avera McKennan Hospital & University Health Center, Sioux Falls, South Dakota, is a 545-bed tertiary hospital and the flagship facility of the Avera Health system, a regional network of 300 locations in five states. Even though our locations are in the rural Midwest, Avera is home to the most advanced use of e-services in a rural setting, and has been recognized as a thought leader and innovator, appearing on "Most Wired" lists and named one of the "Top 10 Trailblazing Hospitals" in 2010.

Avera McKennan's 32-bed orthopedic unit performs approximately 700 joint replacements (hips and knees) a year with two primary orthopedic surgical groups.

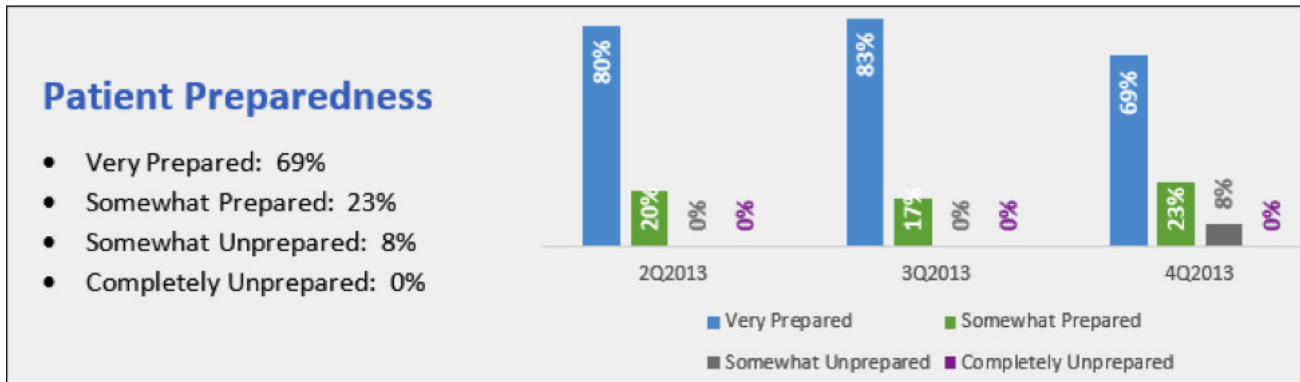
Our scores in pain management and transitions of care were our lowest measures on HCAHPS surveys among hip and knee total joint replacement patients in 2013. HCAHPS questions for pain are:

- How often was your pain well controlled?
- How often did the hospital staff do everything they could to help you with your pain?

We began seeking ways to improve the patient experience by managing their expectations and better preparing them for surgery.

Patient preparation

In the 1980s, Avera McKennan implemented an "Easy Street" approach to rehabilitation. Staged bathrooms and bedrooms along with a car, grocery store, bank, and movie theater were built into a specialized floor of the hospital to simulate real-life



*Patients using the online system at Avera were asked 1 week before surgery how prepared they felt.
Source: Avera McKennan, used with permission.*

environments. These help patients adjust with confidence to life with a new joint and give physical therapists an environment in which to teach patients the right and wrong ways to move after surgery.

In 2002, we began offering a “Total Joints 101” preoperative class to help prepare patients for surgery. Many patients live as much as 90 minutes away from the hospital, so only about half of joint replacement patients are able to attend class. Total Joints 101 covers:

- joint disease
- what to expect throughout the entire joint replacement process
- the role of the coach/personal support person
- learning breathing exercises to assist relaxation
- using assistive devices postsurgery to protect joints
- discharge planning
- insurance
- a tour of the Joint Replacement Center
- questions and answers.

For patients who could not attend the class, our community outreach educator had to mail paper binders and facilitate hour-long one-on-one phone calls. Those patients often misunderstood their role in pain management, did not retain information, or missed education about alternatives to pain medications, such as a change in position, ice or heat, increased mobility, or other comfort options.

An automated Web-based patient engagement tool implemented in March 2013 was part of the solution. Web-based information supplements in-class discussions, helping remote patients prepare from home and reducing the time our community outreach educator spends on the phone.

Journey to better care

The Avera McKennan orthopedics team went through an assessment and optimization process on a patient’s joint replacement journey. Multidisciplinary teams were formed to “walk in the patients’ shoes” and uncover opportunities for improvement. This process gave us fresh eyes to challenge the common routines that we take for granted and made us think globally instead of in silos.

For example, our project team brought together representatives from nursing, anesthesiology, and pharmacy into a single unit to determine the best way to communicate consistent information to patients about pain management in an integrated manner across the episode of care.

We mapped out a pre- and postsurgery care plan with Wellbe, a healthcare technology company based in Madison, Wisconsin, and then used its automated patient engagement tool to guide patients through the steps. The program offers prehabilitation and rehabilitation exercise videos, collects functional outcomes measures from patients pre- and postsurgery, provides education on preparation and recovery care, and checks in with patients to see how they are feeling about their progress. Wellbe is the creator of the Guided CarePath, a suite of online tools that provide patient education, action lists, monitoring, and communications to engage patients in their treatments. We created Guided CarePaths for hip and knee replacements and called it Avera TotalCare.

The Avera TotalCare program, launched in March 2013, provides patient resources in multiple formats, including text, images, and videos to introduce the staff and to show proper prehabilitation and rehabilitation exercise techniques. Patients are introduced to the program at their surgeon's office or by the community educator. New to-do items are delivered by email, and the Web-based program is easy to navigate.

"One patient worked for an airline and flew internationally, and he said that without access to the Avera TotalCare program at his fingertips, he felt he would not have been as prepared for surgery. If we had mailed a binder to his home address, it was unlikely he would have gotten it before his surgery date, but because he had access to his care plan online, he was able to walk through all the steps during his free time waiting in airports and staying in hotels as far away as Europe," says Nancy Klinkhammer, community outreach educator for Avera McKennan.

The program also collects functional outcome measures from patients and administers feedback surveys. We added a specific question to collect pain control opinions from our joint replacement population: "What did you find most helpful in controlling your pain while you were in the hospital?" This gave us information we needed to develop best-performing pain management techniques.

We also can use functional outcome measures to address ongoing concerns through our medical and therapy programs. For example, if the data show that patients consistently note problems with climbing stairs, we can adjust our therapy to help in this specific area.

The online system has proved to be a cost-effective tool in setting proper patient expectations and collecting actionable feedback (sidebar, p 23).

Ongoing improvements

Our Avera TotalCare program won a Gold Web Health Award in fall 2013 in the competitive Web-based resource/tool category from more than 300 entries. This competition, held twice each year by the Health Information Resource Center, recognizes the nation's best digital health resources. Our system allows patients to be better prepared for surgery by getting answers to more of their questions beforehand, including those about anesthesia, equipment needed for home recovery, and when they can resume normal activities.

Over the past year, Avera has implemented other innovative ideas and proven concepts for improving pain management scores, including purposeful hourly rounding, leader rounding, and a pharmacist-anesthesiologist pain team with one-call response.

During purposeful hourly rounding, the care team checks in on patients, monitors their comfort and pain, helps them change position, assists them in reaching the bathroom, if needed, and ensures that personal belongings are within reach.

We created a dedicated number within the hospital, ###-OUCH, that patients can call if they feel their pain is not being addressed appropriately, which connects to a pharmacist-anesthesiologist pain team.

Targeted approach to medication

In December 2013 Avera launched a new innovation to improve pain management in orthopedics by using personalized medicine. For patients who qualify, we use genetic testing to select pain medications that will work best for them, based on unique genetic characteristics that indicate how the liver metabolizes drugs.

Elective orthopedic patients for whom a test is deemed medically necessary have their testing completed at the on-location Avera Institute for Human Genetics. We hope this will cut down on medication costs as well as create a better experience for the patient.

Orthopedic physicians receive an easy-to-interpret, color-coded report that outlines which medications would be metabolized well, which medications could be used with caution, and which medications should be avoided. For example, in the testing of one patient, it was learned that he would respond well to fentanyl or hydromorphone but not hydrocodone or acetaminophen with codeine.

“Pain is a major concern for patients who have orthopedic surgery. We can’t eliminate pain completely, but we can offer a more targeted approach to pain control for our patients,” says Brian Kampmann, MD, orthopedic surgeon with Avera Medical Group Orthopedics and Sports Medicine.

Future outlook

Avera orthopedics experienced 11% growth in 2013 in terms of inpatient hospital volumes in a competitive market marked by reduced overall hospital volumes. We hope these innovations will continue to help us grow and will create a compelling competitive differentiator.

We have seen average year-over-year improvements of 5% across our orthopedic patients’ HCAHPS scores in the areas of transition of care and pain management, as well as our overall score and patients’ willingness to recommend our facility. We plan to continue using feedback and reports to drive more process changes and improve our program. ❖

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Reference

Maher D, Babu V, Mullen D, et al. Postoperative PACU pain score is related to postdischarge HCAHPS scores: A retrospective analysis of 2,933 surgical patients. Poster session, 30th Annual Meeting of the American Academy of Pain Medicine, March 2014.