Effects of fixed OR teams in bariatric surgery

One option to improve efficient use of ORs for bariatric surgery is to work with fixed teams that are dedicated to work together during the full day and to standardize the tasks performed by the team. Team members include the surgeon, residents, nurses, and anesthesiologist.

In this study from The Netherlands, researchers from 2 teaching hospitals examined the effects of fixed OR teams for laparoscopic bariatric surgery on patient outcomes, teamwork and safety climate, and procedure durations.

Patient outcomes remained the same; the researchers had hypothesized they would improve. Teamwork and safety climate improved significantly. The procedures were performed significantly faster, reducing procedure times by about 10%, with additional gains of about 5% per repetition of the same procedure within the same day.

The researchers concluded that working with fixed teams in bariatric surgery resulted in reduced procedure durations, a better teamwork and safety climate for staff, and without loss of quality of patient care or adverse effects on patient outcomes.


Outcomes improve when surgical checklist, team training combined

Postoperative 30-day complications from unintended harm adversely affect patients and families and increase health care costs. Previous studies have shown the use of a surgical checklist enhances communication and reduces postoperative complications and mortality. Surgical team training allows stakeholders to professionally engage one another to prevent patient harm.

This study from the University of Connecticut Health Center, Farmington, and Saint Francis Hospital and Medical Center, Hartford, Connecticut, is the first to use the American College of Surgeons National Surgical Quality Improvement Program (ACS NSQIP) database to examine how surgical teams can reduce postoperative complications by combining communications team training with a surgical checklist. The Association of periOperative Registered Nurses (AORN) Comprehensive Surgical Checklist was used for the study.

Results showed a statistically significant reduction in overall adverse event rates from 23.6% in control cases, to 15.9% in cases with only team training, to 8.2% in cases with checklist use and team training.

The researchers concluded that use of a surgical safety checklist and along with team training in communications produced a statistically significant decrease in 30-day morbidity.

Higher surgical volume not related to higher costs

Increasing recognition of a strong relationship between hospital procedure volume and the quality and outcomes of inpatient surgery have prompted initiatives aimed at concentrating high-risk procedures in higher-volume centers. The effect of volume-based referral on health care costs and use remains uncertain, however.

This study from the University of Michigan, Ann Arbor, used Medicare claims data to evaluate the relationships between surgical volume and costs associated with 3 surgical procedures: colectomy, coronary artery bypass graft (CABG) surgery, and abdominal aortic aneurysm (AAA) repair. Patients were ranked and sorted into quintiles according to procedure volumes of the hospitals in which they had surgery.

Mean risk-adjusted payments were higher for patients in the lowest-volume quintile compared with the highest-volume quintile for AAA ($2,796; 8.5% higher) and CABG ($960; 2.2% higher), but differences were small for colectomy ($350; 1.3% higher).

Payments for the index hospitalization accounted for the largest share of increased payments for CABG and AAA in very-low volume hospitals. Very low-volume hospitals had higher payments for 30-day readmissions and post-discharge ancillary care for all 3 procedures.

The researchers concluded that there was no evidence to support concerns that higher-volume hospitals receive higher payments for CABG, AAA, and colectomy. Minimizing the use of very low-volume hospitals has the potential to reduce costs and improve outcomes.


http://www.journalacs.org

Many surgical complications occur after discharge

Medicare data show that within a month after discharge, 1 in 7 surgical patients experience potentially preventable adverse events that precipitate a hospital readmission.

In this study, researchers from Stanford University, Palo Alto, California, and Yale University School of Medicine, New Haven, Connecticut, examine the frequency and types of postdischarge complications occurring within 30 days after general surgery procedures.

Results showed that 16.7% of patients experienced a complication, and 41.5% of complications occurred after the patients went home.

Among the findings:
• Surgical site complications, infections, and thromboembolic events were the most common postdischarge complications.
• An inpatient complication doubled the likelihood of a postdischarge complication (12.5% vs 6.2%).
• Patients with postdischarge complications had a more than 4 times higher rate of reoperation.
(4.6% vs 17.9%) and 3 times higher rate of death (2.0% vs 6.9%).

The researchers concluded that postdischarge complications account for a significant number of postoperative complications and are an important avenue for quality improvement.


www.archsurg.com

Administrative databases overestimate readmissions, surgical complications

Recent efforts have focused on recognizing the causes of unplanned readmissions to identify targets for quality improvement initiatives. These efforts rely on tracking patient admissions and subsequent unplanned readmissions using administrative claims billing data.

However, implementing improvement strategies based on administrative data assumes accurate identification of complications that are directly linked to a prior hospital admission. Relying on inaccurate interpretations of administrative data may wrongly attribute reasons for readmission or incorrectly identify complications.

This study from the University of California San Francisco Medical Center assesses whether the hospital’s all-cause readmission rate appropriately reflects its clinically relevant readmission rate for spine surgery patients.

Researchers extracted data on 261 readmissions following spine surgery from the hospital’s administrative database.

They found that 69 (25%) readmissions had nothing to do with complications of spine surgery. In 14 cases, the patient returned to the hospital to undergo surgery that had been rescheduled. In 39 cases, the second admission was for the second part of a staged surgery. In the other 16 cases, the reason for readmission was unrelated to spine surgery.

The other 212 (75%) readmissions were related to complications of the initial spine surgery.

After exclusion of the 69 readmissions unrelated to complications, the direct cost of readmission dropped 29%, reflecting a cost variance of more than $3 million.

The researchers concluded that calculating readmission rates from administrative databases overestimates the clinically relevant readmission rate and may lead to misinterpretation of the quality and costs of patient care.


http://thejns.org/action/showCoverGallery?journalCode=spi

New Editions of OR Manager Management Modules

Patient Safety in the OR, Fourth Edition
Improving OR Performance, Second Edition

Each copy just $79 plus shipping and handling—or get both books and save 10%.

Order online at www.ormanager.com
or by phone at 888-707-5814
**Surgical site infections**

**Effect of supplemental oxygen on SSIs**

Perioperative supplemental oxygen or hyperoxia has been postulated to increase tissue oxygen tension, which may lead to an increase in oxidative killing of surgical pathogens and a reduction of surgical site infections (SSIs).

The purpose of this meta-analysis from the University of Texas Health Science Center, Houston, was to evaluate the effectiveness of hyperoxia to reduce SSIs and/or mortality in colorectal and all surgery patients. Traditional fixed-effect and random-effect and Bayesian meta-analysis models were used.

Both the traditional and Bayesian models of analysis support the use of hyperoxia to reduce SSIs, with Bayesian methods assigning a high probability of benefit in colorectal surgery than in all other surgery patients. No conclusions could be made about the effects of hyperoxia on mortality.

The researchers concluded that there is a moderately high probability of a benefit to hyperoxia in reducing SSIs in colorectal surgery patients; however, the benefit is modest.

Further studies should focus on generalizability to other patient populations.


www.annalsofsurgery.com

**Surgical trends**

**Long-term comparison of endovascular and open AAA repair**

Each year, 40,000 patients in the United States undergo elective abdominal aortic aneurysm (AAA) procedures, which result in some 1,250 deaths. Whether endovascular repair of AAAs reduces long-term morbidity and mortality, compared with open repair, remains uncertain.

In the Open versus Endovascular Repair Veterans Affairs Cooperative Study, researchers randomly assigned 881 patients at 42 Veterans Affairs medical centers to either endovascular (444) or open (437) AAA repair and followed the patients for 9 years. This paper reports the long-term results of the study.

A reduction in mortality with endovascular repair was sustained at 2 years and 3 years, but not thereafter.

Ten aneurysm-related deaths occurred in the endovascular group (2.3%) and 16 in the open group (3.7%). There were 6 aneurysm ruptures in the endovascular group and none in the open group.

There was a significant interaction between age and type of repair. Survival increased in patients less than 70 years of age in the endovascular group and in patients 70 years of age and older in the open group.

The researchers concluded that endovascular and open AAA repair resulted in similar long-term survival. Survival advantage with endovascular repair was sustained for several years, but postoperative rupture remained a concern. Endovascular repair led to increased long-term survival among younger patients but not older patients, for whom a greater benefit from the endovascular approach had been expected.


www.nejm.org

www.ormanager.com
Remission and relapse of type 2 diabetes after gastric bypass

Bariatric surgery has profound effects on glycemic control in patients with type 2 diabetes. Some reports suggest that surgery often produces a complete and durable remission.

The goal of this multisite, retrospective study of 4,434 patients, which was funded by the Agency for Healthcare Research and Quality, was to examine the long-term rates and predictors of diabetes remission and relapse after gastric bypass.

Overall, 68.2% experienced complete diabetes remission after surgery; however, 35.1% redeveloped diabetes within 5 years. Relapse was not related to regain of weight.

Significant predictors of complete remission and relapse were poor preoperative glycemic control, insulin use, and longer duration of diabetes.

The researchers concluded that gastric bypass is associated with remission of type 2 diabetes in many but not all severely obese diabetic patients; about one-third of patients have a relapse within 5 years. The authors say the results should be confirmed in future prospective studies.


Infectious Diseases Society of America

Diagnosis and Management of Prosthetic Joint Infection: Clinical Practice Guidelines. The Infectious Diseases Society of America has issued new guidelines on the diagnosis and management of prosthetic joint infection.

Among the recommendations:
- Joint infection should be suspected in any patient with persistent wound drainage, sudden onset of a painful prosthesis, or ongoing postoperative pain.
- Patients with joint infections but with no open wound and a well-fixed prosthesis are candidates for debridement.
- Those with extensive bone and tissue infection may need to have the prosthesis replaced.
- Patients who cannot walk and who have limited bone stock, poor soft tissue coverage, and highly resistant infections may need to have the prosthesis permanently removed and the joint fused. Amputation should be used only as a last resort.
- 4 to 6 weeks of IV or highly bioavailable oral antibiotic therapy is usually necessary to treat joint infections.

26th Annual OR Manager Conference

September 23-25, 2013
Gaylord National
National Harbor, Maryland, near Washington D C

To learn more, go to www.ormanager.com
Joint Commission

A Joint Commission project with 7 hospitals to reduce colorectal surgical site infections (SSIs) has saved more than $3.7 million for 135 avoided SSIs. The project was a joint effort by the Joint Commission’s Center for Transforming Healthcare and the American College of Surgeons.

The participants identified 34 variables that increased SSI risk including patient characteristics, surgical procedure, antibiotic administration, perioperative processes, and measurement challenges.

Among targeted solutions for reducing superficial incisional SSIs were:

- standardizing preop instructions for skin cleansing
- establishing specific criteria for wound management.

Solutions for reducing all types of colorectal SSIs were:

- warming interventions to consistently maintain patient temperature
- weight-based antibiotic dosing protocol.

The solutions will be added to the Joint Commission’s Targeted Solutions Tool in 2013 after pilot testing.

US Pharmacopeial Convention

Change in Labeling Requirement for Total Strength of Heparin to Help Minimize Medication Errors. The US Pharmacopeial Convention (USP) has revised its labeling standards for heparin sodium injections and heparin lock flush solutions to help minimize errors related to misunderstanding the drug’s total strength on multidose product labels.

The change stems from a July 2010 FDA letter noting concerns that labels stating only product strength written as “mg per mL” are often misunderstood.

The revised standards are intended to ensure labels reflect strength per total volume followed by strength per mL—for example, 30,000 USP Units/30 mL (1,000 USP Units/mL).

The revised standards will become official May 1, 2013.

Make Your Thursdays More Productive

Participate in an OR Manager webinar and invite your managers and staff to join you.

2 pm eastern

Regular webinars, 1 hour in length, explore topics of professional importance for OR directors and managers and OR business managers.

Earn 1 contact hour.

The Management Development Program offers 1.5 hour webinars for new and aspiring managers.

Earn 1.5 contact hours.

For a webinar calendar, go to www.ormanager.com

Join us for a productive Thursday.