Regional anesthesia reduces complications, mortality after hip surgery

Hip fracture patients experience high rates of morbidity, mortality, and disability, with approximately 5% dying during hospitalization and 10% dying within 30 days because of high rates of pulmonary and cardiovascular complications.

Data are inconclusive as to whether regional anesthesia improves outcomes after hip fracture surgery.

In this study from the University of Pennsylvania School of Medicine, Philadelphia, researchers retrospectively examined more than 18,000 patients undergoing hip fracture surgery in 126 New York hospitals from 2007 to 2008. Of these, 5,254 received regional anesthesia.

Patients who received regional versus general anesthesia had a 29% lower odds of mortality and a 24% lower odds of inpatient pulmonary complications.

The researchers concluded that regional anesthesia was associated with a significant reduction in major pulmonary complications and death after hip fracture surgery. These findings have important implications for practice, policy, and research related to the treatment of older adults with hip fracture.


Investigation of improperly reprocessed endoscopy equipment at VA medical centers

Major reasons for endoscope-related infections are inadequate cleaning, improper selection or dilution of disinfecting agents, failure to follow recommended cleaning and disinfection procedures, and flaws in endoscope design.

This investigation from the Department of Veterans Affairs and Department of Health and Human Services, Washington, DC, and the Centers for Disease Control, Atlanta, was undertaken to determine whether improper reprocessing of endoscopic equipment at 4 Veterans Affairs medical centers resulted in bloodborne viral infection transmission.

Of 10,737 veterans who underwent endoscopy procedures from 2003 to 2009, 9,879 agreed to viral genetic testing. Of these, 90 had newly identified positive results for 1 or more of 3 viral bloodborne infections—human immunodeficiency virus (HIV), hepatitis B virus (HBV), and hepatitis C virus (HCV).

No case/proximate pairings were found for patients with either HIV or HBV infections.

A total of 24 HCV case/proximate pairings were found, of which 7 case and 8 proximate patients had sufficient viral load for further testing. Only 2 case patients and their 4 proximate patients agreed to further testing. The mean genetic distance between the 2 case and 4 proximate patients ranged for 13.5% to 19.1%.

The investigators concluded that exposure to improperly reprocessed endoscopes did not result in viral transmission in those patients who had viral genetic testing performed.


http://www.jstor.org/stable/10.1086/663252
Laparoscopic surgery

Laparoscopic vs open appendectomy in obese patients

Though open and laparoscopic appendectomies are known to have similar outcomes for normal weight patients, it is not known whether this is true in obese patients.

In this study from the University of Southern California, Keck School of Medicine, Los Angeles, researchers compared short-term outcomes in obese patients after laparoscopic and open appendectomy.

Using American College of Surgeons National Surgical Quality Improvement Program data from 2005 to 2009, the researchers identified 13,330 obese patients (body mass index of 30 or more) who underwent an appendectomy—78% laparoscopic and 22% open.

The association between surgical approach and outcomes was first evaluated in multivariate analysis. A second analysis matched 1,114 laparoscopic appendectomy patients with an open patient group who had the same demographics and comorbid conditions.

Laparoscopic appendectomy was associated with a 57% reduction in overall morbidity in obese patients after multivariate analysis and a 53% reduction in risk in the matched cohort analysis. Mortality rates were the same.

In the matched cohort, length of stay was 1.2 days shorter for patients undergoing the laparoscopic procedure.

The researchers concluded that obese patients undergoing laparoscopic appendectomy had superior clinical outcomes compared with those undergoing the open procedure.


http://www.sciencedirect.com/science/journal/10727515

Laparoscopic gastric bypass safer than open procedure

The efficacy of gastric bypass has made it the most commonly performed bariatric surgery in the US. Laparoscopic gastric bypass was introduced in 1994 and since then has become more commonly performed than open bypass. The safety of laparoscopic and open gastric bypass has been addressed in single-center trials, but no national data exists comparing the 2 approaches.

Researchers from Stanford University School of Medicine, Stanford, California, undertook this study to determine national outcome differences between laparoscopic Roux-en-Y gastric bypass and open Roux-en-Y gastric bypass.

In an analysis of more than 115,000 laparoscopic and 41,000 open procedures performed between 2005 and 2007, more open patients:

- were discharged with nonroutine dispositions (7.7% vs 2.4%)
- died (0.2% vs 0.1%)
- had 1 or more complications (18.7% vs 12.3%).

Open patients also had longer median lengths
of stay (3.5 vs 2.4 days) and higher total charges ($35,018 vs $32,671).


Benefits of laparoscopic vs open appendectomy in older patients

Appendicitis in older patients is a distinct diagnostic and therapeutic challenge and the benefits of different surgical techniques in this population remain poorly understood.

The objective of this meta-analysis from researchers in the United Kingdom was to compare the benefits of laparoscopic vs open appendectomy in older patients.

Six studies including 4,398 laparoscopic and 11,454 open appendectomies were analyzed.

Results showed that the laparoscopic approach was associated with significant reductions in postoperative mortality, postoperative complications, and length of hospital stay. No significant differences were seen in operative time, postoperative surgical site infections, or intra-abdominal abscess and fluid collection.


Effect of preop antiseptic wash on SSIs after deep brain stimulation

High-frequency deep brain stimulation (DBS) is the treatment of choice for certain patients with advanced Parkinson’s disease, essential tremor, and dystonia.

The safety of DBS relies heavily on preventing morbidity, and postoperative surgical site infections (SSIs) are a significant source of morbidity after DBS.

In this study, researchers from the University of Pennsylvania Hospital, Philadelphia, investigated the ability of a self-administered preoperative 70% ethyl alcohol antiseptic wash to reduce SSIs after DBS surgery.

Between January 2005 and October 2007, 170 DBS procedures were performed in 165 patients. Beginning in January 2007, patients were required to
self-administer the alcohol wash on the night before and the morning of surgery (48 patients). Before January 2007, no wash was used (122 patients).

There were 11 (6.47%) SSIs. All were in patients without the preoperative alcohol wash. The infection rate was 9.02% in the no-wash patients and 0% in the wash group.

There was no difference in age, duration of procedure, or number of microelectrode tracts between the 2 groups.

The researchers concluded that the results support the incorporation of a preoperative self-administered alcohol wash into the standard antiseptic protocol for patients undergoing DBS surgery at their institution.


http://www.ajicjournal.org/

Surgical trends

Popularity of total joints burdening critical care services

The number of total hip and knee arthroplasties performed in the US annually has been steadily growing and is expected to surpass 4 million by the year 2030. Patients undergoing these procedures represent a group with a set of unique perioperative problems that require the attention of critical care practitioners.

In this study from the Hospital for Special Surgery, Weill Medical College of Cornell University, New York City, researchers examined the incidence and risk factors for the use of critical care services among this group of patients and compared the characteristics and outcomes of patients who require critical care services to those who do not.

Of the more than 350,000 total hip and knee patients studied, 3% required critical care services. Critical care patients were older and had a higher comorbidity burden than patients not requiring critical care.

Those who required critical care services had higher mortality rates, longer hospital stays, higher costs, and were less likely to be discharged home.

The researchers concluded that approximately 1 in 30 patients undergoing elective total joint procedures need critical care services before discharge, placing an increased burden on the health care system. Hospitals need to understand that hip and knee replacements are going to be a significant part of the patient population and allocate resources accordingly.


http://journals.lww.com/anesthesiology/

Previous PCI increases morbidity after CABG surgery

Though percutaneous coronary intervention (PCI) is the preferred treatment for single- and double-vessel coronary disease, coronary artery bypass grafting (CABG) is still the ideal approach for patients with multivessel disease. The result is that patients often undergo CABG surgery after having undergone a previous PCI. The impact of previous PCI in patients undergoing CABG surgery remains unclear.

In this study, researchers from the University of Virginia School of Medicine, Charlottesville, examined whether the incidence of previous PCI is increasing in CABG patients and whether previous PCI influences patient morbidity and mortality.

The study involved 34,316 patients who underwent CABG procedures at 16 hospitals in Virginia from 2001 to 2008.

The incidence of previous PCI in CABG
patients increased from <1% to 22% during the study time period.

In univariate analysis, mortality was similar between patients who did and did not undergo a previous PCI (2.3% vs 1.9%). However, previous PCI patients had more major complications (15% vs 12%), longer hospitalizations, and higher readmission rates.

Multivariate analyses found that previous PCI was not associated with mortality, but was an independent predictor of major complications after CABG surgery.

The researchers concluded that the incidence of previous PCI in patients undergoing CABG surgery is increasing and is associated with a higher risk of morbidity.


http://www.sciencedirect.com/science/journal/00396060

Infective endocarditis can occur when bacteria enter the bloodstream through breaks in the gums during dental procedures or oral surgery. Patients with certain congenital valve defects or prosthetic valves are more susceptible to infection.

In 2007, the AHA changed its guidelines to recommend use of pre-dental antibiotics to only 4 groups of patients: those with artificial heart valves, transplanted hearts with abnormal valve function, previous infective endocarditis, and specific congenital defects.

Before 2007, antibiotics were given to many more people, including those with many types of congenital heart defects or acquired cardiac conditions.

http://circ.ahajournals.org/content/early/2012/05/31/CIRCULATIONAHA.112.095281.full.pdf+html

Center for Medicare and Medicaid Services

Safe Use of Single Dose/Single Use Medications to Prevent Healthcare-associated Infections. The Centers for Medicare & Medicaid Services says it will continue issuing citations for using single-use medication vials for multiple patients, but under certain conditions, it is permissible to repackage the vials into smaller doses. The guidance came in a June 15 memorandum to state survey directors.

To avoid a citation, facilities must:
- repackage the doses under aseptic conditions in accordance with US Pharmacopeia General Chapter 797 standards for sterile compounding
- store the repackaged doses consistent with USP 797 standards and the manufacturer’s package insert
- use each repackage dose only for a single patient.
CMS says it shares concerns of providers and suppliers about patient access to critical medications that are in short supply. But the agency says it is equally concerned about health-care associated infections caused by unsafe medication preparation and injection practices.


**Joint Commission**

*Hand-off Communications Targeted Solutions Tool.*
The Joint Commission Center for Transforming Healthcare on June 27 announced its new Hand-off Communications Targeted Solutions Tool. The tool will assist health care organizations with the process of passing necessary information about a patient from one caregiver to another and prevent miscommunication-related errors.

Organizations piloting the tool reduced readmissions by 50% and reduced the time it takes to move a patient from the ED to an inpatient unit by 33%.

[http://www.jointcommission.org/issues/article.aspx?Article=RZlHoUK2ok83W08RkCmZ9bVSJ7T8ZbrI4Nz nZ1LEUk%3d](http://www.jointcommission.org/issues/article.aspx?Article=RZlHoUK2ok83W08RkCmZ9bVSJ7T8ZbrI4Nz nZ1LEUk%3d)

**US Department of Health and Human Services**

*Patient Protection and Affordable Care Act.* Key points in the US Supreme Court’s June 29 decision to uphold the Patient Protection and Affordable Care Act as reported by Scotusblog.com include:

- The Act, including the individual mandate, is constitutional but not as a mandate for Americans to buy insurance but as a tax if they don’t.
- Because the mandate survived, the Court did not need to rule whether other parts of the law are constitutional, except for the Medicaid expansion.
- On Medicaid, the Court held that offering states funds to expand coverage is constitutional, as long as the states would not lose all their Medicaid funds if they refuse to participate. Instead, states could choose to continue with their current, unexpanded plans.

[www.scotusblog.com](http://www.scotusblog.com)


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