



The Cutting Edge

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What Surgery Will Look Like in the Future

Over the past 20 years, robotics have revolutionized surgery, and new innovations are continuing to push the boundaries of medicine. Mike Rustic, senior lecturer at the mechanical engineering department at Imperial College, London, says machines such as the "da Vinci" system have had a huge impact on surgery. While the "da Vinci" system is the most widespread robotic surgery tool, Rustic says the "Sensei Robotic Catheter System" is also starting to be used for electrophysiology procedures on the heart. A new exhibition at London's Royal College of Surgeons called "Sci-Fi Surgery: Medical Robots" has displays ranging from the "da Vinci" system to prototype microbots designed to be swallowed and self-assembled in the human body. (CNN – September 24, 2009)

More at <http://edition.cnn.com/2009/HEALTH/09/23/future.surgery.robots/index.html>

Stress High Among Future Surgeons, Survey Reveals

The majority of general surgery residents in the United States say they are satisfied with their training and confident of their ability to perform, but a significant number feel that the hours and stress are straining their family life, and many express worries about future income and career prospects. The study by the Yale School of Medicine and the Yale School of Public Health appears in this week's Journal of the American Medical Association. In the survey, which is believed to be the largest of its kind ever conducted, researchers questioned 4,402 surgery residents from virtually every residency program in the country to identify prevailing attitudes, training experiences, professional expectations and reasons for attrition. (JAMA – September 23, 2009)

More at <http://www.medilexicon.com/medicalnews.php?newsid=164952>



Study Dispels Myth That New Residents Cause Increase in Medical Errors in July

New research published in the September issue of the Journal of the American College of Surgeons challenges the widely held belief that more medical errors occur in teaching hospitals during the month of July due to the influx of new graduates from medical and nursing schools—also known as the “July Phenomenon.” The study shows no differences in in-hospital mortality rates, number of days in the intensive care unit (ICU) or on ventilator support, or minutes spent undergoing resuscitation for trauma patients in July compared with results for other months of the year. Using data from a trauma registry, researchers compared outcomes by month and quarter in blunt trauma patients admitted to a Level I trauma center during a five-year period between July 1, 2001, and June 30, 2006. (JACS – September 25, 2009)

More at http://www.eurekalert.org/pub_releases/2009-09/wsw-sdm092409.php

Exertional Heat Illness Linked to Rare Anesthesia Complication

Physically fit military recruits occasionally develop an “exertional heat illness” (EHI), which can cause them to collapse during training, or even on the battlefield. Emerging research evidence suggests a potentially important link between EHI and malignant hyperthermia—a rare but feared complication of anesthesia, according to an article in the October issue of Anesthesia & Analgesia, official journal of the International Anesthesia Research Society (IARS). Malignant hyperthermia is a serious but rare genetic disorder familiar to anesthesiologists. In this condition, previously healthy patients develop a sudden and rapid increase in body temperature after receiving certain anesthetic drugs. (Anesthesia & Analgesia – September 23, 2009)

More at <http://www.medicalnewstoday.com/articles/165020.php>

Anytime Is Good for Heart Surgery

The October issue of the journal Anesthesiology contains a study reviewing potential adverse effects associated with the timing of a patient’s heart surgery; but based on this study, there is no bad time of the day or week or year to have elective coronary artery bypass graft surgery. Research indicates that sleep deficits, natural body rhythm disturbances, and prolonged duty all reduce performance of drivers and pilots. This study’s authors tested the theory that the same adverse effects may impact hospital personnel performance. Hospital personnel often work off-hours and pull long shifts. The study investigators thus expected surgical outcomes to be worse at the end of the day and at the end of the week when personnel are likely most fatigued. (ASA – September 15, 2009)

More at <http://www.news-medical.net/news/20090923/Heart-surgery-can-be-scheduled-anytime-Study.aspx>

GENERAL HEALTHCARE Articles

Combo Vaccine Reduces Risk of HIV Infection, Researchers Say

A vaccine to prevent HIV infection, the virus that leads to AIDS, has shown modest results for the first time, researchers have found, raising hopes that a disease that kills millions every year may someday be beaten. In what is being called the world’s largest HIV vaccine trial ever -- involving more than 16,000 participants in Thailand -- researchers found that people who received a series of inoculations of a prime vaccine and booster vaccine were 31 percent less likely to get HIV, compared with those on a placebo. "Before this study, it was thought vaccine for HIV is not possible," Colonel Jerome Kim, who is the HIV vaccines product manager for the U.S. Army, told CNN. (CNN – September 24, 2009)

More at <http://www.cnn.com/2009/HEALTH/09/24/hiv.vaccine/index.html>

Hospitalizations for Heart Disease, Heart Attack and Stroke Down Significantly

The number of Americans admitted to hospitals for treatment of coronary heart disease declined by 31 percent between 1997 and 2007, according to the latest News and Numbers from the Agency for Healthcare Research and Quality. As a result of this decrease, coronary heart disease no longer ranks as the leading disease treated in hospitals. It is now ranked number 3. In people with coronary heart disease



(also known as coronary artery disease), fatty deposits clog heart arteries, restricting the flow of blood to the heart and increasing the risk of a heart attack. (AHRQ – September 21, 2009)

More at <http://www.health.am/cardio/more/hospitalizations-for-heart-disease-heart-attack/>

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