

ANESTHESIOLOGY

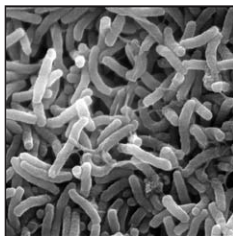


Jean Mantz, M.D., Ph.D., Editor



Nurse staffing and education and hospital mortality in nine European countries: A retrospective observational study. Lancet 2014 Feb 25.
doi: 10.1016/S0140-6736(13)62631-8. [Epub ahead of print].

Nurses represent one of the largest components of hospital operating expenses. This retrospective observational study conducted in nine European countries with similar patient discharge data aimed to assess the impact of differences in nurse:patient ratios and nurses' educational qualifications on patient outcome. An increase in the nurses workload by one patient increased the likelihood of an inpatient dying within 30 days of admission by 7% (odds ratio: 1.068, 95% CI: 1.031–1.106) and every 10% in bachelor degree's nurses was associated with a decrease by 7% of this likelihood (odds ratio: 0.929, 95% CI: 0.886–0.973). Nurse staffing cuts to save money may therefore adversely affect patient outcome. (Summary: J. Mantz. Image: J.P. Rathmell.)



Surgical site infections following ambulatory surgery procedures. JAMA 2014; 311:709–16.

Little is known about serious infections following ambulatory surgery. This retrospective analysis examined databases from eight states representing one third of the U.S. population and included 284,098 index cases of ambulatory surgical patients at low surgical risk. Postsurgical acute care visits (primary outcome) occurred in 3.09 (95% CI: 2.89–3.30) per 1,000 ambulatory surgical procedures at 14 days and 4.84 (95% CI: 4.59–5.10) per 1,000 at 30 days. This study suggests that efforts in quality improvement are needed to decrease serious postoperative infections in ambulatory, low-risk surgical patients. (Summary: J. Mantz. Image: Dartmouth Electron Microscope Facility; used with permission.)



Warfarin, kidney dysfunction, and outcomes following acute myocardial infarction in patients with atrial fibrillation. JAMA 2014; 311:919–28.

Conflicting evidence exists regarding the association between warfarin treatment, death, and the incidence of ischemic stroke in patients with advanced chronic kidney disease and atrial fibrillation. This Swedish prospective, observational, multicenter cohort study included 24,317 consecutive survivors of an acute myocardial infarction with atrial fibrillation and known serum creatinine, 5,292 (21.8%) being treated with warfarin at discharge. The primary endpoint was combination of a composite of mortality and major adverse thrombotic (1) and major bleeding events (2) within 1 yr from discharge date. Warfarin treatment was associated with a lower 1-yr risk for the composite (1) without an increased risk of bleeding. This association was not related to the severity of chronic kidney disease. (Summary: J. Mantz. Image: J.P. Rathmell.)



Delirium in elderly people. Lancet 2014; 383:911–22.

Delirium is an acute disorder of attention and cognition in elderly people that is common, serious, multifactorial, costly, underrecognized, and often fatal. This outstanding review (arising from the group who first reported the success of rehabilitation programs in delirious elderly people 15 yr ago) provides a unique substrate for a critical, evidence-based update on the epidemiology, pathophysiology, diagnosis, treatment, and prevention of delirium in the elderly. This will be useful to each physician, and particularly those who face delirium in the perioperative period, such as anesthesiologists, intensivists, and gerontologists. (Summary: J. Mantz. Image: J.P. Rathmell.)



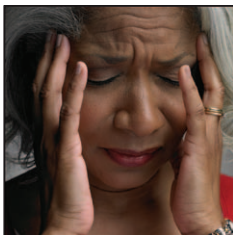
The role of potentially preventable hospital exposures in the development of acute respiratory distress syndrome: A population-based study. Crit Care Med 2014; 42:31–9.

Acute respiratory distress syndrome (ARDS) is a common complication of critical illness. This study was aimed to determine the association between specific hospital exposures and the rate of ARDS development among at-risk patients. Consecutive adults who developed ARDS during their hospital stay (cases) were matched to similar-risk patients without ARDS (controls). The results show that adverse events, particularly inadequate antimicrobial therapy, mechanical ventilation with injurious tidal volumes, hospital-acquired aspiration, and volume of blood products transfused and fluids administered were highly associated with the development of ARDS. This study demonstrates that potentially preventable hospital exposures contribute to the development of ARDS. (Summary: J.F. Pittet. Image: J.P. Rathmell.)



Impact of improvement in preoperative oral health on nosocomial pneumonia in a group of cardiac surgery patients: A single arm prospective intervention study. Intensive Care Med 2014; 40:23–31.

This study evaluated the effects of an oral health protocol on the incidence of postoperative pneumonia (PP) in cardiac surgery patients. Patients were taught how to brush their teeth, tongue, and mouth with chlorhexidine gluconate (CXG) until surgery. The results showed that the use of CXG significantly decreased the incidence of PP. Furthermore, mortality in patients without PP was 4.32% versus 33.3% in those with PP. These results indicate that using a simple and efficient protocol of dental care that improved oral hygiene in the preoperative period reduces the incidence of PP in cardiac surgery patients. (Summary: J.F. Pittet. Image: J.P. Rathmell.)



Reporting of primary analyses and multiplicity adjustment in recent analgesic clinical trials: ACTION systematic review and recommendations. Pain 2014; 155:461–6.

Double-blind, randomized, controlled trials (RCTs) are the gold standard when it comes to the evaluation of efficacy of a new treatment or procedure. Unfortunately, RCTs that do not designate a primary outcome prior to statistical analysis or fail to adjust for multiple tested outcomes can be substantially less reliable. In their analysis of 161 RCTs from three leading pain journals done for pharmacologic and interventional pain treatments, Gewandter *et al.* discovered that only about half (52%) designated a primary treatment outcome and associated analysis plan. A minority of studies adjusted for multiple primary outcomes. While the authors acknowledged that the analysis plans may have been more rigorous than what was

briefly described in the text, the findings of Gewandter *et al.* are still concerning. Better planning and more transparent reporting of analyses may improve the reliability of RCTs. (Summary: J.D. Clark. Image: ©Thinkstock.)



A new leadership curriculum: The multiplication of intelligence. Acad Med 2014; 89:376–9.

Teachers are clear on the content and skills to teach, but they are often unclear about teaching in the affective domain. Even worse, teachers are commonly unaware of the affective lessons they teach through role modeling. This article makes it clear that clinical leaders are teaching one of two affective lessons. Some are “Diminishers” who stifle the contributions of others. They exclude, provide directives, and micromanage. “Multipliers,” in contrast, capitalize upon the talents of the entire team. These teachers include, seek everyone’s expertise, and collaborate. The patient benefit to Multiplier’s team care, the exact setting for anesthesiologists and intensivists, is described by research that identified and quantified the positive affective traits. The article includes an appendix that compares and contrasts the traits

of Diminishers and Multipliers. A most salient aspect of this article is the recounting of learning (both positive and negative) that took place in students who observed the *not so hidden* effective (Multiplier) and ineffective (Diminisher) role models. (Summary: A.J. Schwartz. Image: J.P. Rathmell.)