

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

An observational study of the frequency, severity, and etiology of failures in postoperative care after major elective general surgery. *Ann Surg* 2012; DOI.10.1097/SLA.0b013e31826d859b

Surgeons and anesthesiologists involved in the process of postoperative care are familiar with errors, omissions or failures that may favor postoperative complications (table 1). This prospective observational study investigated the nature and frequency of failures in the process of postoperative care for elective surgical patients. Of the 256 process failures identified for 50 patients, 85% were preventable and 51% led to patient harm. The most frequent process failures were related to communication failures and delays in medication prescription and delivery (including medications for pain), and management of lines, tubes, and drains. These results offer targets to improve postoperative care and decrease complications and hospital stay in patients undergoing elective surgeries.

**Table 1.** Example of Events Considered “Process Failures”

Recording errors

1. Agitation with no apparent organic cause, or due to an unrecorded prescription of an antipsychotic
2. Last-minute changes in timing for removal of epidural catheter leading to omission of recording of removal

Communication error

1. Erroneous oral communication regarding CT scan results inappropriately considered as “normal”

CT, computed tomography.

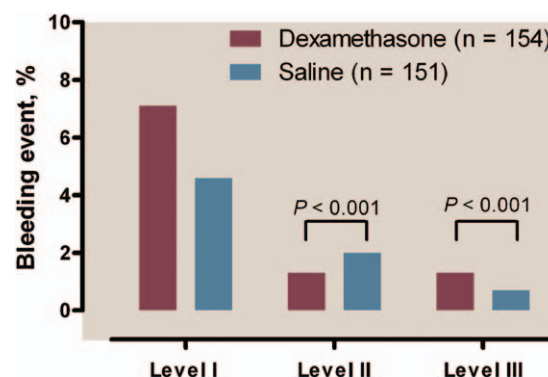
Health benefits of gastric bypass surgery after 6 years. *JAMA* 2012; 308:1122–31

Gastric bypass induces rapid weight loss in morbidly obese patients, but the long-term benefits of this surgery are uncertain. This prospective cohort study conducted from 2000 to 2011 examined weight loss, diabetes, hypertension, dyslipidemia, and health-related quality of life in patients who underwent Roux-en-Y gastric bypass, patients who sought Roux-en-Y gastric bypass but did not have surgery, and controls randomly selected from population-based sample, using propensity score adjustment. The use of RYGB was associated with higher rates of diabetes remission and lower cardiovascular risk and other health outcomes over 6 yr. These results are important, considering the rapid increase in bariatric surgical operations performed worldwide.

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Perioperative dexamethasone administration and risk of bleeding following tonsillectomy in children: A randomized controlled trial. *JAMA* 2012; 308:1221–6

To prevent postoperative nausea and vomiting in children undergoing tonsillectomy corticosteroids are often administered. Although commonly used, the impact of corticosteroids on bleeding in this patient population is not known. This multicenter, prospective, randomized, blinded, placebo-controlled trial examined the risk and severity of dexamethasone (0.5 mg/kg, maximum dose 20 mg) compared with an equivalent volume of saline (0.9%) on posttonsillectomy hemorrhage in the 14-day postoperative period using a bleeding severity scale in 314 children. The results indicated that dexamethasone did not significantly increase the bleeding that required either inpatient admission or reoperation to control the bleeding, in comparison with placebo (fig. 1). This study supports the safety of dexamethasone administration in children undergoing tonsillectomy.



**Fig. 1.** Bleeding event rate of per-protocol analysis excluding primary bleeding events. Level I = self-reported or parent-reported postoperative bleeding; Level II = required inpatient admission for postoperative bleeding; Level III = required reoperation to control postoperative bleeding.

Neurocognitive development of children 4 years after critical illness and treatment with tight glucose control: A randomized controlled trial. *JAMA* 2012; 308:1641–50

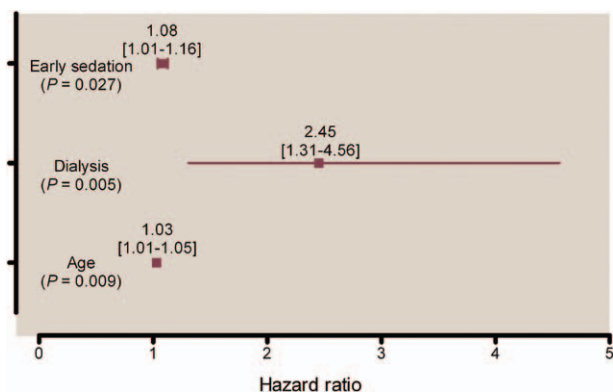
Both hyper- and hypoglycemia may adversely affect the developing brain. This article reports the 3–4 yr follow-up cognitive data of patients enrolled in a prospective, randomized controlled trial on tight glycemic control. More than 700 children aged 16 yr and younger who were admitted to the pediatric intensive care unit over a 4-yr period were included in the original study, and long-term follow-up data were available from 569 patients. The results showed no significant

difference in cognitive performance between children treated with tight glucose control (even if they experienced frequent, but brief episodes of hypoglycemia) *versus* usual care. This study enriches the current controversial debate on the target blood glucose in patients in the intensive care unit.

## Critical Care Medicine

### Early intensive care sedation predicts long term mortality in ventilated critically ill patients. *Am J Resp Crit Care Med* 2012; 186:724–31

The detrimental role of sedation on the outcome of patients in the intensive care unit has been suggested in recent studies. In this prospective, longitudinal, multicenter cohort study, 251 mechanically ventilated critically ill patients were assessed. Together with age and dialysis, deep sedation (defined as Richmond Agitation Sedation Scale –3 to –5) initiated within 4 h after the onset of mechanical ventilation was found to be an independent negative predictor of the time to extubation, hospital death, and 180-day mortality (fig. 2). These results emphasize the potentially detrimental role of deep sedation on outcomes of intensive care unit patients, and suggest that this effect may occur at the early phase of mechanical ventilation.

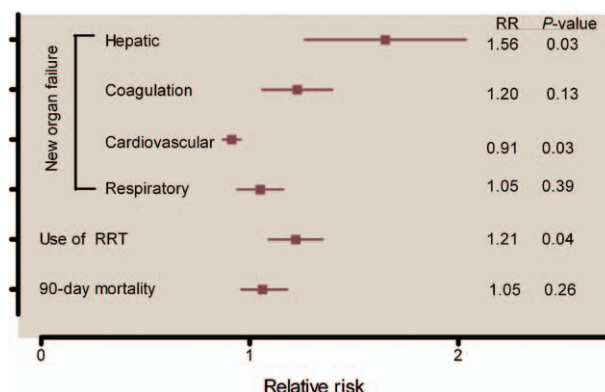


**Fig. 2.** Multivariate analysis of predictors of mortality at 180 days.

### Hydroxyethyl starch or saline for fluid resuscitation in intensive care. *N Engl J Med* 2012; DOI:10.1056/NEJMoa1209759

The results of this randomized, prospective, blinded, multicenter trial on 7,000 patients bring clarification in the debate of the colloids *versus* crystalloids for fluid loading in hypovolemic patients in the intensive care unit. It was very clearly demonstrated that no difference in 180-day mortality was detected between the crystalloid and colloid (hydroxyethyl starch) arms (primary goal; fig. 3). Renal replacement therapy was used significantly more frequently in the HES group, and significantly more adverse events were recorded in the hydroxyethyl starch group. This cornerstone article shows no benefit of colloids *versus* crystalloids in

hypovolemic patients in the intensive care unit, and shows a trend toward increased risks in the colloid group. However, the efficacy/safety balance of crystalloids *versus* colloids in various perioperative situations remains to be investigated.



**Fig. 3.** Relative risk of outcomes and adverse events. RR = relative risk; RRT = renal replacement therapy.

## Pain Medicine

### Catechol-O-methyltransferase val158met polymorphism predicts placebo effect in irritable bowel syndrome. *PLoS One* 7:e48135

For chronic diseases that are characterized by prominent symptoms, placebo responses can be quite high. Examples of such diseases include chronic pain syndrome, irritable bowel syndrome, anxiety, and depression. Depending on the provider, the prevalence of placebo responses in these diseases ranges from 20–50%. This study reviewed patient responses to placebo in patients with irritable bowel syndrome from a previous study that examined placebo and a caring physician–patient relationship. Investigators evaluated catechol-O-methyltransferase genotype and its associations to placebo response. There was a positive relationship between placebo response and catechol-O-methyltransferase polymorphism. This study indicates that part of the placebo response is related to a caring physician–patient relationship and this may be predicted by genotype.

## Education

### Conflict in medical teams: Opportunity or danger? *Medical Education* 2012; 46:935–42

Effective anesthesia patient care depends on teamwork as multiple conflicts, large or small, occur during every team's activity. Social psychologists have long pondered the question, "Does conflict enhance or detract from the team's desired outcome?" Benefit from conflict could include stimulation of and more productive discussion about the issues at the heart of the disagreement, resulting in better team decisions in the future. Harm from conflict could include breakdown of team functioning with personal, emotional,

**Table 2.** Types of Conflict in Teams

Type of Conflict	Disagreement Content
Task	Content and outcomes of task
Relationship	Personal issues outside of the task
Process	Logistical issues of task accomplishment

Adapted from Greer *et al.* 2012.

and task-distracting activity. Team conflict centers on three fundamental aspects of the group activity (table 2).

Over the years, task conflicts have been identified as the conflict type with the most potential to positively affect team functioning. A recent meta-analysis indicates that task disagreements are the most likely of the three types of conflicts to have positive effects on outcome; however, they are still most often nonproductive because personality factors creep into the team activity. Relationship conflicts are consistently negative as they allow personal emotions to invade the team's

function. Process conflicts are most often negative because considerations such as control of resources and role assignment often steer the conflict to personal relationship issues. Most of the authors' examples of team conflicts originate in the perioperative (anesthesiology/surgery/nursing) setting.

Because team disagreements are quite common, conflict resolution is essential. Forcing and yielding are ineffective approaches to conflict resolution as they use personal relationships to attempt resolution of issues. Avoiding conflict is an appealing conflict resolution strategy; yet, it is totally ineffective as the problem continues to fester and will eventually rise to an acute status mandating solution. Proactive conflict resolution employs "cooperative interdependence," with team members recognizing their "shared interests and common goals...they are 'in it together.'" Additional benefit accrues from identifying preemptive strategies whereby team members recognize potential concerns and use existing guidelines to foster development of common expectations.