THIS MONTH IN *Anesthesiology*

A Facilitated Survey Instrument Captures Significantly More Anesthesia Events Than Does Traditional Voluntary Event Reporting 909

An active surveillance tool employing the nonroutine events construct identified a large number of clinical cases with potential safety concerns.

Craniocervical Motion during Direct Laryngoscopy and Orotracheal Intubation with the Macintosh and Miller Blades: An *In Vivo* Cinefluoroscopic Study 884

Compared to the Macintosh, the Miller blade was associated with a small decrease in cervical extension. *See the accompanying Editorial View on* **page 867**

Treatment of Iron Deficiency Anemia in Orthopedic Surgery with Intravenous Iron: Efficacy and Limits—A Prospective Study 923

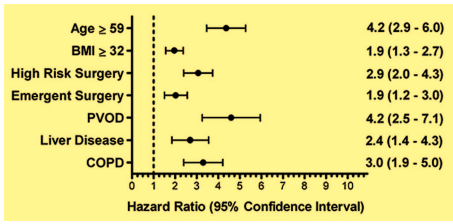
Treatment with intravenous iron can correct iron deficiency anemia before elective surgery.

CME

New Frontiers in the Evaluation of Cardiac Patients for Noncardiac Surgery (Clinical Concepts and Commentary) 1018

This article has been selected for the ANESTHESIOLOGY CME Program.

Predictors of Postoperative Acute Renal Failure 892



From 65,043 noncardiac surgery cases over a 3-yr period, Kheterpal *et al.* identified 15,102 patients who met their study inclusion criteria of preoperative normal renal function (creatinine clearance of 80 ml/min). They found that 121 patients developed acute renal failure (ARF) after surgery; 14 required renal replacement therapy. Analysis of patient characteristics revealed that age, emergent surgery, liver disease, body mass index, high-risk procedures, peripheral vascular occlusive disease, and chronic obstructive pulmonary disease were independent preoperative predictors of postoperative ARF. Intraoperative variables also associated with development of postoperative ARF included total vasopressor doses, use of a vasopressor infusion, and diuretic administration. *See the accompanying Editorial View on* **page 869**

Treating the "Hidden Epidemic" of Non–battle-related Injuries 1003

White and Cohen report data on soldiers treated in Baghdad, Iraq, between October 2005 and September 2006, in the first forward-deployed pain clinic. At the Ibn Sina Pain Clinic, 132 patients with non–combat-related pain due to radiculopathy (mostly related to herniated discs), thoracic pain, groin pain, nonradicular leg pain, and axial low back pain were evaluated and treated. Epidural steroid injections comprised the most common treatment, followed by trigger point injections, lumbar facet blocks, and groin blocks. The treating anesthesiologists prescribed nonsteroidal anti-inflammatory drugs to 70% of their patients, and referred 24% to physical therapy. The return-to-duty rate was 94.7%. *See the accompanying Editorial View on* **page 872**

Presynaptic Protein Necessary for Isoflurane Sensitivity in *Caenorhabditis elegans* 971

In a series of experiments using wild type and knockout lines of *C. elegans*, Metz *et al.* measured sensitivity to isoflurane concentrations in the human clinical range. The team demonstrated that overexpression of UNC-13, an evolutionarily conserved protein promoting neurotransmitter release, suppressed isoflurane resistance in a mutant *C. elegans* line. *unc-13* loss-of-function mutants were also highly isoflurane resistant. Normal anesthetic activity was restored by full-length UNC-13, but not by a membrane-targeted UNC-13 that might bypass isoflurane inhibition of membrane translocation of UNC-13. These experiments suggest that vertebrate homologs of the protein (mUNC-13) may be a component of the general anesthetic mechanism. This hypothesis could be tested, say the authors, in mouse knockout strains for each of the mUNC-13 isoforms.

Head Positions and Laryngoscopy Alter Craniofacial Structures 875

Using standard anatomical indices as predictors, Kitamura *et al.* classified 26 preoperative patients into either easy laryngoscopy (EL) or difficult laryngoscopy (DL) groups. After administration of anesthesia, they obtained digital photographs of each subject's head and neck in five conditions (neutral, simple extension, sniffing position, L3, and Lmax) and used the images for measuring craniofacial dimensions. In the EL group, simple neck extension and sniffing position increased the submandibular space, facilitating vertical arrangement of mandible, tongue base, and larynx to the facial line. These structural rearrangements in response to direct laryngoscopy were not observed in patients with DL. *See the accompanying Editorial View on* **page 867**