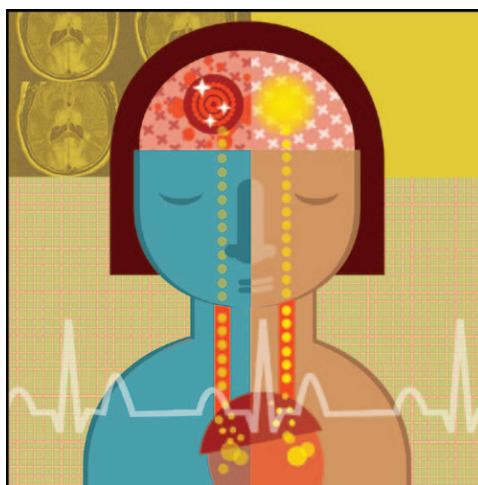


Patient Safety

ANESTHESIOLOGY Contributions and Supplements to the American Society of Anesthesiologists' Annual Meeting

MORE than any other specialty, anesthesiology, especially its perioperative medicine component, focuses on patient safety. This reflects the concern that surgery rather than anesthesia is the primary intervention for patient benefit. According to this logic, any risk from anesthesia only detracts from patient benefit (although it is recognized that surgery cannot be performed safely without anesthesia). The specialty has historically focused in reducing intraoperative anesthesia-related morbidity and mortality, and has been remarkably successful. Thanks to advances in drugs and devices as well as medical education and understanding; intraoperative anesthesia now has an enviable record of patient safety. Yet, the perioperative period carries risks of major morbidity and mortality manifold greater than those classically defined as anesthesia related. As medical shepherds of patient safety through the perioperative period, anesthesiologists are now tackling these larger dangers.

This month, the American Society of Anesthesiologists' Annual Meeting will convene around a theme of "Global Partners in Quality Outcomes and Patient Safety." As in recent years, the Journal will sponsor sessions highlighting the best abstracts in clinical and basic science and host a symposium (this year's theme, "Cardiac Arrest and Resuscitation") and a luncheon honoring research awardees. Full



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details are available to meeting registrants in the Celebration of Research booklet, which is freely available throughout the convention center.

This month's issue of *ANESTHESIOLOGY* focuses on patient safety in its classically restricted sense as well as broader and more profound sense. Here you will find articles on rare patient safety events in the operating room (fires, injuries from gas delivery equipment) and preventive approaches to more common postoperative complications (goal-directed fluid therapy in patients at risk for volume overload, positive airway treatment in patients at risk for postoperative respiratory depression, intravenous lidocaine in patients at risk for severe postoperative pain). This issue also contains articles on the difficult topic of assessing individual patient risk and appropriateness for surgical intervention.

We highlight on the cover of an article in this issue,¹ which addresses the evolving understanding of risks and benefits to perioperative β -blockade. Perioperative myocardial infarction is 100–1,000 times more common than death from anesthesia or than intraoperative awareness. Myocardial infarction in this setting typically occurs days after surgery, its diagnosis based on clinical symptoms is often missed or unreliable, and it carries a more than 10% risk for death. Although some randomized clinical trials demonstrated an important reduction in the incidence of perioperative myocardial infarction with the institution of perioperative β -blockade, this was accompanied in the largest trial with an increased incidence of perioperative stroke.² Subsequent studies have suggested the presence of anemia as a co-contributor to perioperative stroke risk in patients receiving β -blockade. Studies in animals suggest that β_2 -blockade, by reducing cerebral vasodilation in the setting of sympathetic activation, could increase the risk of cerebral ischemia. The current study¹

Illustration: A. Johnson.

Accepted for publication July 18, 2013. The author is not supported by, nor maintains any financial interest in, any commercial activity that may be associated with the topic of this article.

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examined a single-center data base and observed a perioperative stroke risk of 0.2% in over 10,000 patients receiving β -blockers. Stroke risk was five-fold lower in patients receiving the β_1 -preferring blocker bisoprolol compared with the less selective blockers metoprolol and atenolol, consistent with the animal studies. Should these findings be replicated in a prospective, randomized trial. Patient safety may be enhanced by reducing a common and feared postoperative complication, myocardial infarction, using β_1 -preferring blockers which reduce stroke risk from this therapy.

Patient safety, as highlighted at this year's American Society of Anesthesiologists' Annual Meeting, remains the cornerstone of perioperative medicine. What we do in the operating room affects patient safety directly, may uncover high-risk individuals requiring special postoperative treatment, and is evolving to address the larger issue of perioperative morbidity and mortality after the patient leaves our

initial care. We are pleased to highlight this evolution in sessions at the American Society of Anesthesiologists' Annual Meeting and in this issue of the Journal.

James C. Eisenach, M.D., Wake Forest School of Medicine, Winston-Salem, North Carolina. editor-in-chief@anesthesiology.org

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