

Preface

Perioperative Issues for Surgeons: Improving Patient Safety and Outcomes



Lena M. Napolitano, MD
Guest Editor

Optimal perioperative (pre- and postoperative) care of the patient undergoing surgery is ultimately linked to optimal patient outcome.

Millions of patients undergo surgery each year. Approximately 300,000 patients in the United States and 500,000 patients worldwide undergo coronary artery bypass surgeries (the most common cardiac surgical procedure) annually. Similarly, approximately 400,000 total knee replacements and over 300,000 hip replacements are performed each year in the United States. The number of patients who undergo bariatric surgery more than quadrupled between 1998 and 2002 (from 13,386 to 71,733), with part of the increase driven by a 900% increase in operations on older patients between the ages of 55 and 64.

Surgical procedures are commonly performed in older patients with significant comorbidities. By the year 2030, it is estimated that 20% of Americans will be older than 65, while one out of four elderly individuals will be older than 85 years of age. According to recent estimates, 50% of those over age 65 will undergo surgery as compared with only 12% of those aged 45 to 60 years. Despite the higher numbers of elderly patients having surgery, mortality and morbidity rates have been on the decline, in part due to significant advances in perioperative care.

Recent studies have also shown a decline in the perioperative mortality rates in all age groups. Advances in surgical and anesthetic techniques combined with sophisticated perioperative monitoring and critical care

management are factors that have contributed to improved perioperative patient outcomes. An evidence-based approach to achieve optimal perioperative care can therefore ultimately impact on improved outcome in millions of patients undergoing surgery annually in the United States.

In this issue of the *Surgical Clinics of North America*, the fundamental strategies for optimal perioperative care are reviewed. The preoperative assessment of the surgical patient should begin well in advance of the anticipated surgical date. A preoperative assessment is useful to identify factors associated with increased risks of specific complications and initiation of a management plan that minimizes these risks. Appropriate prophylaxis strategies (including deep venous thrombosis prophylaxis and strategies for prevention of surgical site infection) are necessary in almost all patients. Optimal intraoperative care includes several safety initiatives that are discussed in detail. Postoperative care strategies (including pain control, prevention and treatment of nausea and vomiting, clinical pathways) are essential. Prevention of postoperative complications (cardiac, infectious) can be achieved with multidisciplinary efforts. Finally, research to more critically examine risk-adjusted surgical patient outcomes is underway.

I would like to thank the authors for generously contributing their time and expertise in the preparation of this issue. I would also like to acknowledge Catherine Bewick of Elsevier for her tireless support and assistance in bringing this issue to completion. I hope that this issue serves as a timely and current reference to assist in the provision of evidence-based perioperative care to surgical patients in an effort to ultimately improve patient outcomes.

Lena M. Napolitano, MD
Department of Surgery
University of Michigan Medical Center
1500 E. Medical Center Drive
1C340 University Hospital, Box 0033
Ann Arbor, MI 48109-0033, USA
E-mail address: lenan@umich.edu