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Preface

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Guest Editors

Rene Favaloro reported the first successful series of coronary bypass surgeries in 1967 [1]. And so began the new era of surgical management of cardiac disease. Since that time, an explosion of advances in technology, surgical techniques, pharmacologic therapies, and postoperative management has created a dynamic medical and nursing specialty. In 2007, the cardiac surgery nurse cares for patients experiencing a variety of procedures, including coronary artery bypass on and off pump, valve repairs and replacements, use of arterial conduits, transplants, mechanical implants, and surgery for arrhythmias. In addition, the cardiac surgery nurse must manage mechanical therapies, such as implantable cardioverter-defibrillators, intraaortic balloon counterpulsation, ventricular assist devices, and mechanical hearts.

There were more than 400,000 cardiac surgeries performed in the United States in 2005 [2]. From the more than 40-year history of cardiac surgery, we now have good data on the efficacy of surgical therapies. This issue of *Critical Care Nursing Clinics of North America* presents a review of outcomes and issues in cardiac surgery.

Miga begins with a review of the history, current trends, and a glimpse into the future of surgical management of cardiac disease. Despite all of the advances in postoperative management, the Society of Thoracic Surgeons reports that postoperative atrial fibrillation occurs in about 20.5% to 40% of patients who undergo cardiac surgery [3]. Palazzo discusses the etiology, risk factors, prevention, management, and nursing implications of this persistent problem. Patients who have undergone coronary artery bypass have become a common sight in critical care units. Although nursing management of these patients has become standardized, complications may still occur, and the critical care nurse is the first caregiver with opportunity to detect them. Anthony and Sendlebach review the incidence and patient outcomes for common postoperative complications. One example of improvements in our management of patients who have undergone cardiac surgery is the length of patient survival and graft patency. As our patients live longer, reoperations for coronary and valve disease are increasing in frequency. Leeper summarizes the implications and outcomes of reoperation for these patients.

Experience with cardiac surgery is growing in a variety of patient populations. Richards examines

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patient outcomes in special populations, such as women, octogenarians, and adults living with congenital heart disease. Hill adds to our knowledge as she describes valvular heart disease and introduces us to the emerging art and science of cardiac valve repair. Pediatric cardiac surgery presents its own unique challenges; Ascenzi and Kane examine the major complications that are specific to these little ones. Hagen and Casanova-Ghosh educate cardiac surgical nurses about the use of mechanical support for management of postcardiotomy cardiogenic shock. They discuss the management of ventricular assist devices as a bridge-to-recovery postcardiac surgery. Pharmacologic agents are an important part of caring for the patient who has undergone cardiac surgery and maintaining adequate cardiac output and perfusion during the acute recovery period. Katz presents an in-depth look at postoperative pharmacologic management.

Idemoto and Kresevic stimulate critical thinking with their discussion of the evidence base for postoperative nursing interventions and implications for further nursing research. Munro and Taylor-Panek discuss the role of the nurse practitioner for managing patients who have undergone cardiac surgery in the cardiovascular recovery room, ICU, and in step-down units. They outline the keys to success in this position. Finally, Kollman and Liedl describe a successful process for orienting new graduate RNs to the cardiac surgery ICU.

The authors provide a comprehensive review of the state of the science in cardiac surgery. We acknowledge each author for his or her significant contributions to nursing knowledge.

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References

[1] Loop FD, Muehreke DD. Surgical treatment of atherosclerotic coronary heart disease. In: Alexander RW, Schlant RC, Fuster V, editors. Hurst's the heart. 9th edition. New York: McGraw-Hill; 1998. p. 1473–87.

[2] American Heart Association. Heart disease and stroke statistics – 2007 update. Available at: http://www.americanheart.org/statistics. Accessed January 10, 2007.

[3] The Society of Thoracic Surgeons. Data analysis of Society of Thoracic Surgeons National Adult Cardiac Surgery Database. 2006. Available at: www.sts.org/sections/stsnationaldatabase/. Accessed January 10, 2006.