Anesthesiology 2010; 113:762–3

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Cardiopulmonary Bypass. Edited by Sunit Ghosh, M.B.B.S., F.R.C.A., Florian Falter, M.D., Ph.D., F.R.C.A., and David J. Cook, M.D. Cambridge, United Kingdom, Cambridge University Press, 2009. Pages: 207. Price: $60.00.

The development of cardiopulmonary bypass (CPB) changed the realms of cardiac, thoracic, and vascular surgery. Continuing research and development feed a growing wealth of information about CPB. *Cardiopulmonary Bypass* provides a complete overview of the field for all providers involved with the practice of CPB in a book of manageable size and length. The editors of this book are experienced anesthesiologists from world-renowned centers in the United Kingdom and the United States. Experts from both the United Kingdom and the United States contributed to this book and include surgeons, anesthesiologists, and perfusionists.

The opening chapters are filled with figures of equipment and monitors and how they come together in a system for CPB. They provide an appropriate introduction to those who are new to CPB while providing a review for those who are already familiar with the system. The chapters on the conduct of CPB and weaning from CPB are easy to follow and thorough, providing information about different clinical applications and alternatives.

The chapter on anticoagulation and coagulopathies is written with a contribution from Linda Shore-Lesserson, M.D., who is known for her expertise on this topic. The chapter reviews the coagulation cascade, current strategies in anticoagulation and monitoring, and bleeding disorders in the setting of CPB. Information about medications used for anticoagulation, its reversal, and the prevention of bleeding is up to date. The topic of heparin-induced thrombocytopenia is well covered from pathophysiology to diagnosis to management in patients undergoing cardiac surgery. The chapter ends with a brief, but useful, section on the management of a bleeding patient.

Although it changed the scope of cardiothoracic surgery, CPB is associated with organ dysfunction. There is a general chapter that gives an overview of the effects of CPB on each organ system, and then there are chapters appropriately dedicated to myocardial protection, deep hypothermic circulatory arrest, cerebral morbidity, and renal protection. The chapter on myocardial protection is written by Constantine Athanasuleas, M.D., and Gerald D. Buckberg, M.D., cardiothoracic surgeons who are known for their contributions to the fields of myocardial protection and cardiac failure. The chapter on deep hypothermic circulatory arrest flows well, covering history to neuroprotective techniques, and the chapter on cerebral morbidity builds on that chapter, providing more information about neurophysiology and neurologic complications. Information on acute kidney injury is written by a nephrologist and is a great update and review for all providers of CPB.

The book spends an appropriate amount of time on extracorporeal membrane oxygenation and circulatory devices as well as the use of CPB in noncardiac procedures. The chapter on extracorporeal membrane oxygenation is impressively thorough for a review book. Some of the recent advances that use the concepts and components of CPB have occurred in the use of circulatory devices. The chapter gives an overview of the different devices used, with relevant figures. In addition, the different indications for device implantation are discussed.

The editors have fulfilled their goal of writing an "easily readable source of material for the everyday practice of clinical perfusion." Each chapter is written with references that are current and complete without being overwhelming. Because this book covers the fundamentals of CPB in adults, it does not venture into details on newer techniques, such as those used in minimally invasive surgery or pediatric surgery. For those learning and teaching about CPB, this book is a wonderful companion to reference textbooks that are already available.

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(Accepted for publication April 27, 2010.)

Core Topics in Thoracic Anesthesia. Edited by Cait P. Searl, F.R.C.A., and Sameena T. Ahmed, F.R.C.A. Cambridge, United Kingdom, Cambridge University Press, 2009. Pages: 215. Price: $81.00.

The practice of thoracic anesthesia requires detailed knowledge of respiratory physiology, pharmacology, anatomy, and related surgical techniques for a patient population that frequently has major comorbidities. *Core Topics in Thoracic Anesthesia* is a multiauthored British text that provides a clear and concise introduction to the evaluation and management of patients undergoing thoracic surgery. Consistent with the goals of the *Core Topics* series, this text provide anesthesia trainees at all levels with a readily readable review of the perioperative care of the thoracic surgical patient. This hardbound edition comprises three sections: preoperative consid-