Kaplan's Cardiac Anesthesia, 6th Edition – The Echo Era

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The editors of *Kaplan's Cardiac Anesthesia, 6th Edition – The Echo Era*, have evidently seized the opportunity to revise this authoritative text in a way that goes well beyond keeping pace with late developments in cardiac surgery and anesthesia. Although it is certainly true that the editors have ensured inclusion of appropriate sections dealing with nascent or emerging surgical procedures (e.g., hybrid cardiovascular procedures, transcatheter valve replacement procedures), the most salient aspect of this latest edition is a thorough and well-implemented incorporation of Internet-based adjuncts to the printed page.

The ubiquity of Internet access and mobile devices has created an increasing opportunity for – and reliance on – the use of Web-based resources for both learning and support of clinical decision-making. Although the 6th edition continues as a thorough, well-organized, amply-illustrated example of a stand-alone text, online activation of the text affords a wealth of nontraditional embellishments to the book itself.

First, and most simply, the user is provided online access to the complete text from any location or device with Internet access. All tables and illustration appear, and are expandable, for easy study. Unlike the book itself, the online version is searchable with user-supplied keywords or topics of interest. Second, and marvellously, the online companion to the textbook includes a catalogue of video clips organized to match the chapters of the book itself. Most are echocardiography loops, but others illustrate various electrocardiograms or hemodynamic monitoring events – in lieu of a thousand words. Many of these loops are nicely adorned with well-timed and well-placed arrows or comments, adding to their illustrative value. Anyone

who has used an older textbook – even an excellent one – dealing with transesophageal echocardiography (TEE) cannot fail to be impressed by the value added through such adjuncts, compared with still photographs. The fact that they are made available so easily online and without the need of a DVD-ROM adds to their utility in the clinical, hospital, or university setting. Finally, the online companion's reference list at each chapter's end provides links to the sources in PubMed.

In addition to the compelling online support features, *Kaplan's Cardiac Anesthesia* remains a complete, thoughtfully updated text. As with previous editions, it is organized logically into sections: I) Preoperative Assessment and Management; II) Cardiovascular Physiology, Pharmacology, Molecular Biology, and Genetics; III) Monitoring; IV) Anesthesia and TEE for Cardiac Surgery; V) Extracorporeal Circulation; VI) Postoperative Care; and VII) Education in Cardiac Anesthesia.

The third section, which deals with monitoring, deserves special scrutiny in light of the emphasis placed on TEE training and competence among those practising cardiac anesthesia. Three chapters are devoted to the topic. The first (“Evolution of Perioperative Echocardiography”) might be shrewdly shelved for later perusal by busy trainees but provides an interesting read for those who have been at it awhile. The next chapter covers the fundamentals of TEE and the skill set and knowledge base required of the practicing intraoperative echocardiographer. This chapter is necessarily dense and does not always read as a pedagogical resource (as with many texts dedicated solely to TEE) but, rather, as a thorough, if laconic, review. It may nonetheless be well appreciated by learners for its completeness and the liberal inclusion of high-quality figures and tables. As discussed, its value as a learning aid is greatly buttressed by the complementing online video loops. The last of the three chapters is

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excellent for learners and experienced echocardiographers alike. "Decision Making and Perioperative TEE" places the tools and knowledge of the clinician into a surgical context and provides insightful discussion that will enable skilled echocardiographers to participate meaningfully with intra-operative surgical planning and provide guidance in the difficult choices that unexpected findings sometimes present.

A robust pair of chapters are included in Section V ("Extracorporeal Circulation"), dealing with blood transfusion and coagulation management. Not only do these issues remain, as ever, central to cardiac anesthesia, but the continuing evolution of opinion, practice, pharmacology, and technology surrounding blood management has necessitated a thorough update to this section. These chapters are particularly strong and are complemented nicely by the chapter dealing with coagulation monitoring in Section III.

Perhaps no other subspecialty of anesthesia requires the same degree of interdisciplinary cooperation and surgical insight as does cardiac anesthesia. To this end, the core section of this reference book that deals with anesthetic management (Section IV) is laden with helpful descriptions and illustrations of surgical techniques. For those providing

care in the most modern surgical centres, there are excellent discussions dealing with hybrid operating room procedures, such as percutaneous valve replacement and thoracic aortic stent grafting. A continuing theme of the text is the delivery of material in a highly clinical context, frequently illustrating issues with case studies. Other educational devices nicely executed include the Key Points itemized at the beginning of each chapter, numerous distillations of salient material within coloured "boxes," and end-of-chapter summaries often embellished with glossaries.

The traditional textbook faces an increasing problem of obsolescence during the Internet era. This is particularly true where computers handily embarrass the printed page with moving pictures, depicting the subject matter (i.e., echocardiograms) in its actual, original form. *Kaplan's Cardiac Anesthesia – The Echo Era* goes far beyond a thorough and lush update of its content and presents itself to readers wherever they may find themselves with a mobile device and an Internet connection.

Competing interests None declared.