

The Anaesthetic Crisis Manual

David C. Borshoff
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It is the era of the checklist. Following Gawande's publication of *The Checklist Manifesto*,¹ several studies documented a decrease in surgical complications and mortality after adopting the World Health Organization's presurgical checklist.^{2,3} The inevitable progression was the development of similar emergency situation checklists for operating room crises based on the aviation industry experience. The SafeSurgery group documented in a simulation environment that the use of such checklists for 12 intraoperative crisis situations improved operator performance and reduced omissions.⁴ Neal et al⁵ showed similar results by testing the ASRA Guidelines for management of local anesthetic systemic toxicity (LAST) in a simulation setting. Chu et al⁶ have published *A Visual Guide to Crisis Management* that follows a similar checklist format for 21 common intraoperative crises.

The Anaesthetic Crisis Manual by David Borshoff is the latest addition to this literature. As a pilot, Borshoff is more attuned to the format of emergency alerting system checklists and has compiled a useful collection of 23 intraoperative scenarios. His checklists are somewhat longer than the SafeSurgery samples but still come closer to the ideal 7 steps than the Chu manual. They have short concise steps to follow and are particularly effective because each includes a second page of useful supplemental and explanatory information, including specific drug doses and supplemental treatments. The format is especially useful because of the clear-tabbed index table at the beginning that allows the user to open the manual immediately to the relevant pages, which lie flat in the spiral-bound workbook. The specific scenarios recognize the need for local adaptation by including spaces for the relevant telephone numbers for additional resources at the local level. The scenarios also clearly identify situations (such as laryngospasm) where the crisis is so urgent that there is little time for the checklist, and the procedure should be rehearsed and memorized in advance. The manual includes 9 additional checklists targeted at prevention of crises, such as the machine

checkout procedure and the differential diagnosis of intraoperative hypoxemia and hypotension.

The guidelines used for reference are based on the Association of Anaesthetists of Great Britain and Ireland Safety Guidelines, generally comparable to North American practices. The current checklists, however, do not include the detail of management of cardiac toxicity for LAST included in the ASRA guidelines, and the procedures for resuscitation for ventricular fibrillation are not exactly the current American Heart Association recommendations. The treatment of malignant hyperthermia does not include a reference to the North American Malignant Hyperthermia Association of the United States checklist or emergency telephone number nor does it include subsequent dosing recommendations for dantrolene.

Nevertheless, this is an excellent addition to our standard anesthetic practices and a clear move to data-driven standardized responses to crisis situations. It is particularly important that we as a profession move away from thinking that we should handle all emergencies with memorized responses. Cognitive aids like this manual are essential in crisis situations. The practicality of providing one for each cart (or trolley) becomes an issue, particularly in view of the need to adapt the management protocols to local resources, customs, and procedures and also to update each copy as new guidelines emerge for specific crises (such as the recent revision of the American Heart Association Guidelines and the LAST protocol). At the very least, this manual should serve as a template (perhaps along with the documents of SafeSurgery and Chu) for the creation of individual handbooks for each operating room in every hospital. This concept is a great step forward for our profession in providing safe and effective care for all our patients, and we owe a debt of gratitude to Dr. Borshoff for helping us along this path.

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Anaesthetic and Perioperative Complications

Kamen Valchanov, Stephen T. Webb, and Jane Sturgess. New York: Cambridge University Press, 2011. 257 pp. US \$79

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Anaesthetic and Perioperative Complications by Valchanov, Webb, and Sturgess is a contemporary and comprehensive review focusing on the recognition, management, and prevention of anesthetic-associated complications. The text's target audience is composed of anesthesia providers and trainees. It is written as a concise and practical review of complications impacting clinical anesthesia. Additionally, the book's discussion of complication management from a departmental and system-wide perspective broadens its appeal to those involved in quality assurance and patient safety regulation on an administrative level.

The text is clearly and concisely written with logical organization and structure. Each chapter includes clinical scenarios, guidelines, and recommendations, as well as a list of further reading regarding particular topics of interest. This format creates optimal readability and review for any busy clinician while also providing a frame of reference and additional readings for those requiring more information.