

Why do surgeons not comply with “best practice”?

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Scientific enquiry provides surgeons with new protocols for diagnosis and treatment through expanding knowledge of pathophysiology and clinical outcomes. Information accessibility has reached such levels that, with minimal expertise or help, a surgeon can learn recent developments in the management of any clinical condition. Therefore, it might appear that few obstacles should prevent surgeons from converting new knowledge into practice. Do general surgeons in Canada practise according to current knowledge? The paper in this issue by Wasey and colleagues¹ suggests otherwise. Their findings related to perioperative administration of heparin, antibiotics and drain use are unequivocal — the surgeons in their study have failed frequently to practise according to information and guidelines that are available in the published literature. Their results probably apply to other surgeons and operations across the country.

Chassin and associates² have divided problems of quality in patient care into underuse, overuse and misuse; in the study of Wasey and colleagues we find examples of all 3: underuse of preoperative heparin; misuse (wrong timing) and overuse (excess doses) of prophylactic antibiotics; and misuse of drains. These areas of clinical practice are hardly es-

oteric; they constitute everyday events in typical general surgery practices. The study conveys an important message and should lead surgeons to reflect on their own practices. The authors have concentrated on costs, but inappropriate use of drugs and devices compromise further patient safety and clinical outcomes. The added costs of inappropriate heparin administration are minor compared with the monetary and human costs of death from preventable pulmonary embolism.

The study's findings are not new. The authors have cited similar studies that showed inappropriate heparin use. With respect to antibiotic prophylaxis, published reports have shown for decades that misuse and overuse of antibiotics perioperatively have led to unnecessary costs and adverse outcomes.^{3,4} For example, 2 decades ago Fry and colleagues³ wrote about the cost of poor compliance with antibiotic prophylaxis guidelines. A large study about the timing of prophylactic antibiotic administration found that, compared with published recommendations, antimicrobial agents were administered too early or too late in about a third of cases and that such misapplications were associated with increased rates of surgical site infections.⁴ At some point, we must refocus our attention from whether

inappropriate practice occurs to find out why providers do not practise according to best evidence.

Why did the residents in the study of Wasey and colleagues initiate heparin prophylaxis postoperatively (not inappropriate in itself), yet order postoperative antibiotics inappropriately? Was it simple lack of knowledge? Or does a more complex set of factors explain these results, such as where residents and staff get their information (e.g., courses, drug companies, the literature), what leads them to act on that information, or the possibility that it is easier to order something than not to order it? Systemic factors such as regional variations associated with institutional culture, leadership and the role of pharmacies may have been associated with inappropriate practices. These important issues need further study and beg the general question of how best to apply continuing knowledge acquisition to clinical practice.

Published literature on the effectiveness of continuing medical education has determined that “traditional” methods of information transfer, such as lecture courses, have a poor record of transferring knowledge to practice.⁵ What works must be tried and tested locally. This usually includes combinations of clinician needs assessments, interactive exchanges between education providers

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and consumers, effective information packaging and delivery, clinical decision support at the point of care, changes in practice culture, effective leadership and self monitoring.⁵ The will to change must be adopted by all participants, including surgeons and their trainees, anesthetists, nurses, administrators — anyone who influences clinical practice in a given setting. Some centres have reported success in improving perioperative antibiotic ordering and administration using clinical decision support⁶ and administrative methods that get all participants to adopt the same goals of enhancing patient care.⁷

The apparent correlation between drain overuse and heparin underuse among individual surgeons in the study of Wasey and colleagues (their Fig. 1 [see page 283]) suggests that the surgeons are key determinants of practice. This critical finding reflects

the physician autonomy evident in the study sample and the practice of surgery generally in Canada. What else might be found about the study's key players, the surgeons themselves, and what correlations might exist between surgeon profiles and study outcomes related to clinical practice? For example, was there an association between compliance with correct practice and number of years in practice, teaching activities, research productivity or volume of colorectal practice? To retain our current roles as providers of care, we must improve our adoption of new knowledge into daily work; if we fail to adopt this mode of practice, others will force it on us, justifiably.

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Books and Other Media Received Livres et autres documents reçus

This list is an acknowledgement of books and other media received. It does not preclude review at a later date.

Cette liste énumère des livres et autres documents reçus. Elle n'en exclut pas la critique à une date ultérieure.

Colorectal Cancer: Multimodality Management. Edited by Leonard B. Saltz. 854 pp. Illust. Humana Press.

2002. US\$195. ISBN 0896039358.

Functional Reconstruction of the Urinary Tract and Gynaeco-Urology. Richard Turner-Warwick and Christopher Chapple. 931 pp. Illust. Blackwell Publishing. 2002. US\$208.95. ISBN 0865426953.

Operative Pediatric Surgery. Moritz M. Ziegler, Richard G. Azizkhan, Thomas R. Weber. 1339 pp. Illust.

McGraw-Hill Professional. 2003. Can\$457.25. ISBN 083857405X.

Pocket Surgery. William R. Wrightson. 291 pp. Blackwell Science Inc. Blackwell Publishing. 2002. Paperbound. US\$24.95. ISBN 0632046155.

Raising the Dead: Organ Transplants, Ethics, and Society. Ronald Munson. 304 pp. Oxford University Press, 2002. Can\$48. ISBN 0195132998.