

Editorial

Preoperative clinics—how can they be improved?

In the last 20 years there have been major changes in systems and processes for the assessment and preparation of patients having planned elective surgery. Although these changes have varied in different countries, health systems and hospital types, hospital-based multidisciplinary preoperative services with clinics are becoming increasingly accepted as an integral part of surgical patient care¹. These changes have been accompanied by a shift from traditional models of surgical care towards planned, protocolised processes, including day of surgery admission and approaches such as 'enhanced recovery after surgery'². The widespread implementation of these new peri-operative systems represents a paradigm shift in surgical care.

Preoperative services involve substantial costs to the hospital. Even in fee-for-service or activity-based funding settings, cost recovery (billing) is unlikely to cover all these costs. It is therefore unsurprising that the economic justification of preoperative services has always been a matter of great interest to hospital management. This includes identifying methods to reduce costs, and demonstrating and measuring the benefits of these services to hospitals.

The claimed benefits to hospitals of new peri-operative systems are multiple, although it is difficult to prove these claims to a standard that would be expected of more scientific areas of medicine³. A number of important questions remain unresolved: do preoperative clinics reduce cancellations on the day of surgery? Can the cost of preoperative information gathering be improved by new technologies? Can clinical decision-making be optimised by using information technology with decision aids? In this issue of the Journal, two papers address these questions.

The study by Emmanuel and MacPherson⁴ reports an attempt to evaluate the effectiveness of the preoperative clinic at minimising cancellations. The authors report some interesting and useful information about the function of the perioperative processes in their hospital.

The report also illustrates many of the difficulties encountered when trying to answer what appears to be a simple question or when trying to implement change based on this information. Anaesthetists involved in supervising and evaluating preoperative

services will find value in the methodology and experience reported by the authors. There is much worth emulating.

The authors report that during the period reported in the study, organisational decisions and definitional changes affected data collection. This is a common experience. Although not described in this report, in many hospitals the operating suite data are collected by staff whose understanding of the categorisation system may be incomplete or inconsistent. Factors such as these set the scene for the results of audits to be challenged by those who do not wish to accept the conclusions generated. Efforts to generate 'better' data to drive change are tempting but may not be effective in the politically complex 'real world' of hospital system improvement.

The authors report that many cases were cancelled due to the 'patient not attending hospital' or 'no longer requiring surgery'. It could be suggested that addressing these factors should be within the scope of the preoperative service. Again, this change is likely to have broader cost and organisational implications that may generate some resistance.

Despite the size of the hospital studied and the large number of raw cancellations, after excluding emergencies and non-anaesthetic reasons, there was a relatively small number of relevant cases to be analysed. From the hospital's point of view, it could be suggested that, regardless of the findings for these cases, there are more important issues affecting the efficiency of the surgical processes than the effectiveness of the preoperative clinic.

The cases analysed are usefully classified and other services could use this framework. The results revealed some process issues that were appropriately addressed, such as improved patient instructions and checking of pathology results. The 'grey literature' and anecdotes suggest that other hospitals have had similar experiences. Apart from the strategies mentioned by the authors, it could also be suggested that improved systems to identify changes in patient health status before the day of admission may be useful.

'Clinician disagreement' was an issue in a small number of cases. This is an interesting issue to consider. It is traditionally accepted in surgery that it is appropriate to perform some operations that are found retrospectively to be unnecessary (e.g. normal

appendix, non-malignant lump excisions, non-torted testis etc). Similarly, is it an indication of quality if the procedural anaesthetist never disagrees with the clinic anaesthetist, or does this imply that the procedural anaesthetist has stopped bothering to assess the patient independently? Perhaps occasional disagreements between clinical and procedural anaesthetists should be valued as an indicator that the system is working well and are thus appropriate.

The widespread implementation of the traditional preoperative clinic and perioperative system (such as that described by Emmanuel and MacPherson) has resulted in a 'win-win' of very significant cost savings simultaneously with improved quality of care. Nevertheless, it is important to continue to look for more effective and efficient ways to provide this service.

In another paper Ludbrook et al⁵ build on their previous work, examining ways of refining and re-designing some of the function aspects of pre-operative systems. It is a more theoretical paper and includes some complex statistical techniques, but represents some important work that may guide future developments.

By pooling clinical decisions made by a large number of experienced clinicians working independently, the authors examine the potential to develop automated systems to guide decisions such as triage to bypass preoperative clinics, referral to higher-acuity hospitals or preoperative testing. It is early work and although the ideas and methodology are theoretically sound, some may question the applicability in the clinical world. It may also appear to be attempting to apply highly sophisticated reductionist analytical techniques to an inherently chaotic process. Some of the categories used for decision-making are very broad and do not contain enough detail. Some would suggest that the increasing evidence of the importance of physical fitness and exercise capacity should have greater emphasis as a major determinant of patient management⁶.

Despite these concerns, the ideas are worth considering. Current technical constraints on remote clinical information-gathering may become less problematic as patient health details become more readily available by shared electronic records. This will set the scene for automated decision support, which may be supplied to surgeons or nurses at the time of booking patients for surgery. Using pooled

clinical decision analysis may provide a better basis for these systems than guidelines written by a small group of experts. As the authors point out, it may also provide a more reasonable approach to ascertaining peer practice in the medico-legal setting than current methods.

One other aspect of this work may also be worth considering. What is the potential importance of optimising preoperative test ordering as a cost-reduction exercise? A recent report from Europe suggested that although preoperative testing commonly deviated from recognised guidelines, the potential savings if all patients would be tested appropriately were approximately €26 per patient⁷. Although even small savings add up, it would seem that other aspects of perioperative systems may be more fertile areas to be examined.

Anaesthetists have played a predominant role in the establishment and management of preoperative services and clinics. This has improved patient care and reduced healthcare costs. It has also raised the status and influence of our specialty. It is important that quality improvement, innovation and system development in this area continue, driven by research such as that reported here.

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