Managing waiting lists for cardiac surgery

Waiting lists for cardiac surgery, although unavoidable, can have adverse effects on the patients concerned through increased risk of death and other ischaemic related events, as well as loss in quality of life. The extent to which delayed surgery affects patient outcome varies widely between patients, being dependent on factors such as disease severity, symptom experience, and waiting time. Therefore, it is important to manage waiting lists sensibly in a manner that aims to be equitable, reduce overall risk, and maintain or improve quality of life as much as possible. Two papers in this issue address different aspects of the waiting list problem.1,3

Lessons from analysis of waiting list related deaths
Plomp et al. investigated mortality among patients waiting for cardiac surgery in 11 centres in the Netherlands during 1994 and 1995.2 They are particularly interested in “waiting list related deaths”—that is, deaths that could have been avoided if patients were not required to wait. The number of waiting list related deaths, their distribution over the waiting time, and hence the estimated reduction in mortality if effort was made to shorten waiting times, are highly dependent on the combined situation within the 11 centres over the two years. Such results are an interesting snapshot of that time and place, but are likely to be of limited value in the management of waiting lists in other centres, and possibly even in the 11 centres themselves during 1998. The incidence of mortality for patients on the list, which they also measure, is more robust to changes in policy and the distribution of waiting times, and is therefore more generally useful. The number of waiting list related deaths avoided cannot, by itself, be used to measure the benefits of reducing waiting times unless balanced against the number of extra perioperative and postoperative deaths that would occur by bringing surgery forward; in some cases, earlier surgery may not reduce mortality.4,5

Lessons from fixed priority scoring systems
Seddon et al. studied patients waiting for coronary artery bypass surgery at a single centre in New Zealand with the aim of investigating the validity of the New Zealand scoring system for prioritising patients and, in particular, “whether it prioritises patients at high risk of ischaemic related events while waiting”.3 The authors also question its use as a means for identifying cut off points for deciding who is eligible for surgery. They conclude that the New Zealand score would not add any extra information about the occurrence of adverse ischaemic related events while waiting than is already accounted for by the clinicians’ own judgment about surgical priority. However, this does not go all the way towards establishing the validity, or otherwise, of the scoring system. A number of issues remain open such as whether the score alone would be better or worse at prioritising patients than the clinicians’ judgment, and whether the use of a cut off, despite its faults, would have any adverse effect on the overall quality of patient care and, given the surgical capacity constraints, enable the delivery of a more equitable service.

Systems for prioritising patients, like the New Zealand or Ontario scores,6,7 which are used to make explicit judgments about eligibility for types of care, are bound to be subject to careful scrutiny, hence the need for them to be valid and well founded. The difficulty with fixed scoring systems is that they only indicate relative priorities and give little indication of when surgery should be timed to minimise risk or maximise quality of life within the unavoidable capacity constraints. Also, by being fixed, they cannot reflect the variation in risk associated with different waiting times. The five year risk attributed to a high risk patient brought to the front of the queue may be far lower than that of a low risk patient who has to wait for over a year. Moreover, if it was possible to give both patients an equivalent waiting time of six months, the combined risk may be further reduced. For an equitable system, a fixed priority score may not be the answer.

Ways forward
More sophisticated methods for prioritising patients and assigning the time for surgery have already been proposed,8 but can the two studies in this issue indicate any way forward? Plomp et al. measure preoperative incidence rates for mortality. These, in combination with perioperative and postoperative incidence rates, can be used to generate estimates for the variation in a patient’s risk associated with assigning surgery at different times. Future studies in which such incidence rates are measured by type of patient would be very useful in assessing the implications of reclassifying the different types of patients by priority group, and of varying the recommended waiting times of individual priority groups. This could form the basis of a valuable planning tool.

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