The National Confidential Enquiry into Perioperative Deaths 2000: then and now

The most recent report from the National Confidential Enquiry into Perioperative Deaths (NCEPOD) was published on 21 November 2000 (Department of Health, 2000a). The data presented in the report relate to a randomized 10% sample of perioperative deaths occurring in the UK (excluding Scotland) occurring between 1 April 1998 and 31 March 1999. Comparisons are drawn in the report with the randomized 20% sample examined in 1990 (Department of Health, 1990).

It is of note that this is the second NCEPOD report to be published since the introduction of clinical governance, when participation in the National Confidential Enquiry became a mandatory requirement. This particular report spans the crossover from the previous system of voluntary reporting to the current system of mandatory participation. The data analysed in the 2000 report relate to a total of 19 832 deaths occurring within 30 days of a surgical procedure. From this group a 10% sample was randomly selected for detailed review.

CHANGES SINCE 1990

The 1990 report concluded that considerable changes were required to improve the delivery of care to patients. The 2000 report shows that many of the recommendations have been addressed. In particular, consultant input is now very high, with both anaesthetists and surgeons demonstrating a willingness to subspecialize. Far fewer incidents of trainee grades operating inappropriately were recorded. It was considered that critical care services have improved. The report also emphasizes that these changes have taken place in the face of an ever-increasing workload and an increasingly older and sicker patient population.

The report notes that the single most important logistical problem in collecting the kind of data essential for the National Confidential Enquiry is the problem clinicians face in accessing the data from within the medical records departments of their hospitals. This has been a recurrent theme since the 1990 report. For example, in 12% of cases where a questionnaire was not returned, surgeons stated that the notes were not available. Similarly 25% of anaesthetic reports could not be completed because of missing notes.

THE ROLE OF CONSULTANTS

Despite encouraging noises about the increased consultant input and reduced incidence of trainee grades operating inappropriately, there was concern expressed that a large number of procedures were being carried out by non-consultant career grades; it is possible that inadequately qualified, unsupervised, non-consultant career grades may simply have replaced the unsupervised junior doctors of previous reports.

There was also concern expressed that very little has changed with regard to the percentage of deaths considered in detail at local audit meetings. This is particularly disturbing as considerable resources have flowed into all such activities over the previous decade. The final recommendation of the report is that clinicians must strive to achieve an audit record of all deaths if professional education, credibility and public support are to be maintained.

CRITICAL CARE SERVICES

Even though there is an upbeat message about the improved availability of critical care services, it is pointed out that the situation remains woefully inadequate. For example, it is reported that 40% of hospitals from which deaths are reported still have no high dependency facilities. Furthermore, two patients out of every five who die in hospital within 30 days of a surgical operation do not have a high dependency facility available to them.

The report goes on to suggest that an even less satisfactory situation is where critical care facilities exist within the unit but they are not available to an individual patient. For example, 5% of the patients who were randomly selected for detailed review could not be given appropriate high dependency or intensive care postoperatively because, although the facilities existed in the hospital, there was no bed available. The report concludes that:

'High dependency unit care should now be at the top of the list of priorities for any hospital that does not already have one.'

There is growing evidence that the level of provision of critical care facilities can have an influence on postoperative mortality. In a study comparing 30-day postoperative mortality between hospitals with different levels of critical care provision, Copeland's group observed an increase in observed mortality relative to that predicted using the POSSUM system. A hospital offering critical care facilities to over 3% of postoperative patients performed better than one with no postoperative critical care provision (observed:expected mortality ratio 0.98 *vs* 1.42) (Copeland et al, 1991).

Published outcome data suggest that results from major surgery are better in countries that expend more of their gross domestic product on health care than we do in the UK. There are some stark differences in the quality of peri-

operative care one might expect in an American university hospital compared to the UK equivalent. For example, all patients undergoing major surgery in the USA would be anaesthetized by a consultant, operated on by a consultant and would go to a postoperative care facility; in the UK it is a lottery and not surprisingly when you review the statistics. We expend approximately 6% of our gross domestic product on health care compared to 14% in the USA, we have approximately 9 critical care beds per 100 000 compared to 31/100 000 in the USA and only 1–2% of our hospital beds are critical care beds compared to 5–7% in the USA.

MOVING FORWARD

So, where should we go from here? As it is unlikely that we will get anywhere close to the American situation in the foreseeable future how should we react tomorrow?

In particular, how should a surgeon or anaesthetist react to the all too familiar scenario, where they are faced with the patient that they are certain would benefit from more detailed perioperative care, but there are no critical care facilities available? Should they cancel an operation for a growing cancer, thus delaying treatment for days or even weeks? Should they proceed without a critical care bed, accepting the fact that this is a gamble; if the patient returns to the ward and develops problems that result in an unfavourable outcome the criticism will be directed at those responsible for the decision that, with hindsight, may appear cavalier.

In the light of the growing expectation of 'fully informed' patient consent should the patient be made aware of this dilemma, i.e. should we be asking 'would you like to go ahead with your operation for cancer accepting the fact that your chances of survival will be reduced as we cannot guarantee appropriate postoperative care facilities?'. Or can we make better use of currently available facilities and aim to provide appropriate care within the bounds of realistic funding expectations (Goldhill, 1997).

Are we taking a retrograde step in talking about high dependency units when the complete spectrum of critical illness has been embraced in the new concept of 'comprehensive critical care' (Department of Health, 2000b). While the NCEPOD report (Department of Health, 2000a) focuses on the high dependency needs of patients perioperatively the issue is not simply one of beds; more important is the provision of the skill and support required by the patient.

The familiar tort of no beds available can, of course, be improved by provision of more beds and more staff. However, it is also necessary to provide support on wards for critically ill patients who would otherwise occupy those beds, to develop postoperative care units within existing buildings, to engineer critical care beds to a common standard such that intensive care unit and high dependency unit bed numbers can flex according to demand, and to ensure that these patients are cared for by staff with the appropriate skill base and training.

Critical care services are undergoing a major reorganization nationally that should ensure these demands of the modern critical care service are met. This reorganization is, however, dependent on continued growth of the funding available for critical care facilities.

We suggest that postanaesthetic care facilities are an essential part of the resource requirements of major surgical patients. Such facilities will provide a centralized skill base where the minimum standards required for the perioperative management of major surgery can be ensured. The ring fencing of such facilities will guarantee their availability (Crosby and Rees, 1994), preventing cancellation of operations where appropriate facilities have not been available and preventing unnecessary deaths where surgery has proceeded without adequate facilities. Rigid protocols for discharge from such facilities should be developed to maintain their availability while development of general critical care facilities, including outreach, should ensure that patients' ongoing needs are met. HM

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KEY POINTS

- Many of the recommendations of the 1990 National Confidential Enquiry into Perioperative Deaths (NCEPOD) report have been addressed.
- The single most important problem in collecting the data essential for NCEPOD is the problem clinicians face when accessing medical records.
- Little has changed in the rate of consideration of deaths in local audit meetings.
- Post anaesthetic care facilities are an essential part of the resource requirements of major surgical patients.
- Such facilities require rigid discharge protocols to ensure their continuing availability.