Who Operates When? II: the National Confidential Enquiry into Perioperative Deaths 2003

The National Confidential Enquiry into Perioperative Deaths (NCEPOD) recently published its report entitled *Who Operates When? II* (WOW II) (NCEPOD, 2003). This report examined changes in surgical and anaesthetic practice since the publication of *Who Operates When?* (WOW I) in 1997 (NCEPOD, 1997). Increased consultant involvement and a reduction in junior trainees performing procedures at night have been identified. However, the report makes recommendations based upon the study findings which, if implemented, would improve the quality of care available, particularly for emergency patients.

WHO OPERATES WHEN?

The principal findings of WOW I were that 65% of emergency operations performed at night were undertaken by junior grades of surgeons (junior registrars and senior house officers (SHOs)), and at night 68% of patients were anaesthetized by a junior grade. In WOW I, NCEPOD recommended that the study should be repeated after about 5 years in an attempt to ascertain whether any changes in practice had occurred, in particular following the introduction of Calman training and shorter working hours for junior doctors.

WHO OPERATES WHEN? II

The WOW II study sampled a total of just over 72 000 cases. Many of the findings suggest that there have been improvements in the delivery of surgical and anaesthetic care, particularly for emergency patients, but there is still considerable room for improvement. Some of the recommendations from the original report remain as pertinent today as they were in 1997.

THE NCEPOD CLASSIFICATION

It became clear during analysis of the data, and following peer review by expert advisory groups, that the NCEPOD classification indicating the degree of urgency of case (emergency, urgent, scheduled, elective) was not being applied consistently. In some cases the classification was insufficiently discriminating for the practical purpose of prioritizing cases.

For example three apparently similar cases of forearm fracture in 8-year-olds were classified as emergency, urgent and scheduled. A number of advisors made the point that there are often cases which do not fit the definition of emergency because they are not life threatening, but require a quicker response than the 24 hours required for urgent procedures. Examples suggested were testicular torsion and re-implantations or fractures with vascular compromise.

Consequently NCEPOD has decided to revise the NCEPOD classification to include more specific definitions which are relevant across surgical specialties.

DATA AND HOSPITAL INFORMATION SYSTEMS

Participating hospitals were given the choice of returning data on the questionnaires provided or electronically using a spreadsheet. Only 34% of cases were submitted electronically. Certain fields on the questionnaire were particularly poorly completed, for example the American Society of Anesthesiologists status was missing in 33% of cases.

In order to try and assess the accuracy of the data returns, NCEPOD clinicians visited 27 randomly selected hospitals. Twelve data fields were reviewed. Overall out of a possible 290 correct responses only 55% were correct, with 29% not having been recorded despite the information being readily available to the NCEPOD staff. The greatest discrepancy was from a hospital which had reported having 13 theatres, but actually had 20. This raises serious concerns about the ability of managers to plan services, if they have poor knowledge about the facilities available to them.

A principal recommendation of the report is therefore that hospitals should provide adequate information systems to record and review anaesthetic and surgical activity.

OPERATIONS AND ANAESTHETICS AT NIGHT

There was a significant reduction in the number of cases which were operated on at night by junior surgeons (specialist registrar (SpR) years 1 and 2, and SHOs), down from 65% to 20%. However, for anaesthesia, the reduction was less marked, having reduced from 68% to 45%. There are some difficulties in trying to establish direct comparisons between the original WOW I report and this study, because of the change in the way that surgical and anaesthetic training is undertaken. Nonetheless, it was felt that equating the old registrar with the SpR levels 1 and 2, and the old senior registrar with SpR levels 3–6 allows for a reasonable comparison.

There are very few true surgical emergencies that need to be operated on at night, and those that do need to be done are most commonly complex cases such as ruptured aortic aneurysms. This begs the question, if a case is complex, or a patient so sick that emergency surgery at night is warranted, should the surgeon and anaesthetist not be experienced and fully trained? There has, however, been some progress, with consultants performing twice as many operations and

anaesthetics at night as they did in 1995–6. Nevertheless, the direct involvement of consultants in out-of-hours care still seems to be related more to the size of hospital and the number of available trainees than to a clear strategy to optimize patient care throughout the day and night.

The study shows that while large hospitals tend to use trainees to deliver the majority of out-of-hours work, and medium-sized ones employ staff grade and associate specialist staff, it is in the smaller hospitals that the majority of direct patient care is provided by consultants. However, smaller hospitals also have a more restricted range of surgical specialties available. Given the wide variation in the configuration and size of NHS trusts, it is unlikely that the ideal model of health-care delivery for emergency patients can be planned by trusts individually for their local populations.

Therefore a principal recommendation of the report is to ensure that strategic health authorities and NHS trusts collaborate to guarantee that all emergency patients have prompt access to theatres, critical care facilities and appropriately trained staff, 24 hours per day every day of the year.

KEY POINTS

A number off points have been raised by the *Who Operates When? II* report from the National Confidential Enquiry into Perioperative Deaths (NCEPOD). These include:

- Revise NCEPOD classification to include more specific definitions and guidelines which are relevant across surgical specialties.
- Provide adequate information systems to record and review anaesthetic and surgical activity.
- Ensure that strategic health authorities collaborate with NHS trusts to guarantee that all emergency patients have prompt access to theatres, critical care facilities and appropriately trained staff, 24 hours per day every day of the year.
- Ensure that all essential services (including emergency operating rooms, recovery rooms, high dependency units and intensive care units) are provided on a single site wherever emergency/acute surgical care is delivered.
- Debate whether, in the light of changes to the pattern of junior doctors' working, non-essential surgery can take place during extended hours.

CONCLUSION

This report again reinforces the need for sufficiently robust information systems in every trust. It is hoped that strategic health authorities will take note of these recommendations, and in particular plan for the effective provision of emergency care within and across regional boundaries. There needs to be a careful assessment of the effects upon surgical and anaesthetic training arising from the reduction in out-of-hours availability of trainees. Both surgeons and anaesthetists need to receive high-quality structured training in the management of the emergency patient, so that the consultants of the future are fully equipped for the job. HM

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The full report can be downloaded free of charge from: www.ncepod.org.uk

National Confidential Enquiry into Perioperative Deaths (1997) *Who Operates When? A report by the National Confidential Enquiry into Perioperative Deaths 1995/96.* National Confidential Enquiry into Perioperative Deaths, London

National Confidential Enquiry into Perioperative Deaths (2003) *Who Operates When? II. A report by the National Confidential Enquiry into Perioperative Deaths 2001/02.* National Confidential Enquiry into Perioperative Deaths, London