Point of view

Resident consultants in large Intensive Care Units?

Unlike junior doctors, consultants in the United Kingdom (UK) are not expected to be resident in the hospital after hours and at weekends. During these times consultants are available 'on-call', principally to give telephone advice but also to return to the hospital if required. This traditional way of working has remained unchanged since the foundation of the National Health Service and can be seen as a pragmatic compromise between ideal service provision and the work life balance of a relatively small number of consultants. Generally this compromise has worked well, especially for those consultants from 'non-acute' specialities. However for intensive care consultants, particularly those covering large units, the on-call period can be very onerous.

The unpredictable nature of intensive care means that there are few opportunities to curtail out of hours work, which can be achieved in other specialities by the appropriate scheduling of routine work. Moreover, the critically ill patient is best managed by the consultant being at the bedside rather than just dispensing telephone advice. Other factors contributing to the onerous nature of the on-call period include; difficult triage decisions that arise from inadequate provision of intensive care beds,[1] increasing severity of illness attributable to sub-optimal ward care[2] and a reduction in the number and experience of trainees as a consequence of working time legislation.[3]

A UK survey of intensive care unit (ICU) consultant working practices at weekends noted that on average a consultant would be responsible for 10 beds, work 8 - 9 hours during the day and receive 2 calls at night.[4] Extrapolation of this data suggests that weekend work for consultants responsible for ICUs with 2 - 3 times the average number of beds would be particularly arduous.

Potentially there are many adverse consequences from having such demanding on-call duties. Sleep deprivation and fatigue are known to impair performance and to contribute to accidents.[5] Medical error in the ICU is common and can have catastrophic results when perpetrated on critically ill patients with limited physiological reserve.[6,7] A survey of intensive care interns showed that they made substantially more serious medical errors when they worked frequent shifts of 24 hours or more than when they worked shorter shifts.[8] There is no *a priori* reason to believe that consultants working excessive hours should behave differently to these interns. Indeed they may commit more error, as it is likely that reductions in performance associated with fatigue increase with age.[9]

Some consultants place undue reliance on trainees to control the demands of after hours work. This is suggested in a recent report from The National Confidential Enquiry into Patient Outcome and Death (NCEPOD), which noted that 1 in 4 patients were admitted to the ICU without consultant intensivist involvement. Moreover, the same proportion were not reviewed by a consultant intensivist within 12 hours of admission.[10] Inadequate supervision of trainees has been identified as a causal factor in medical error in the intensive care unit.[7] Disclosure of such trainee error is a common occurrence on the consultant ward round in many units.

Developing a resident consultant service in intensive care presents an opportunity to address many of the service deficiencies that currently exist. The most obvious benefit is the presence of a trained senior intensive care doctor being available at the bedside 24 hours a day. There should be little surprise that staffing intensive care units with physicians skilled in the management of critically ill patients improves outcome in terms of length of stay, morbidity, mortality and cost.[11-15] Mortality appears to correlate with 'out of hours' time periods when consultants are traditionally not on site. In the UK night-time discharges from intensive care were associated with increased mortality,[16] whilst in Finland mortality was higher for patients admitted at the weekend.[17]

Time spent training junior doctors in the UK has reduced considerably over the last decade with the introduction of shorter specialist training programmes and this has been exacerbated by the recent introduction of the European Working Time Directives. At a time when deficiencies in hospital care[2,10] are being identified, fewer junior doctors than ever are present out of 'normal' working hours. Resident intensive care consultants help address these issues by appropriate triage and management of critically ill patients outside the intensive care unit, and by providing educational opportunities for trainees both in intensive care and other specialities.

A resident service has a number of potential social benefits. The time at which shift changes occur can be accommodated outside the traditional start and finish times, making travel to and from the workplace less time consuming. Excessive working hours have been identified as one of the most stressful aspects of working as a consultant in intensive care.[18] The reduction in hours spent on a shift system, compared to traditional 'on-call', creates an improved work life balance, job satisfaction, sustainability and ultimately

retention of staff in our experience.

Instituting a resident service is not free of potential drawbacks. Shifts need to be structured so that there is sufficient continuity of care, whilst at the same time not exposing staff to a high risk of fatigue. Poorly designed shift patterns could themselves result in fatigue and adversely affect patient safety. How long the optimal shift length should be, and if this should vary between night and day, is also contentious.[19] As an entirely new method of working for consultants there is also the issue of what represents appropriate remuneration. Finally, and most significantly, a resident service requires expansion of consultant numbers at a time when it is generally accepted that in both Europe and North America there are insufficient intensivists to meet demand on current staffing patterns.[20]

These potential drawbacks are not insurmountable, here in Cardiff a new national contract and a flexible attitude to work has facilitated a consultant resident service since September 2004. In a unit the size of ours, with 24 beds (excluding cardiac) and 1,500 admissions per year, the advantages of residency have clearly outweighed the disadvantages. By joining our trainees in providing a resident service we believe that we have taken a step back for the future of our specialty.

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