Fatigue and the Delivery of Medical Care

Lack of sleep has well established effects on physiological, cognitive and behavioural functionality. Sleep deprivation can adversely affect clinical performance as severely as alcohol according to some sources. Sleep deficiency may be due to loss of one night’s sleep or repeated interruptions of sleep. Chronic sleep depravation degrades the ability to recognise one’s ability to recognise the impairments induced by sleep loss. The problem of sleep deprivation has vexed acute medical practice for decades. Improvement has been painfully slow. The problem is that all night hours throughout every week of every year have to be covered and there are a finite number of doctors to shoulder the burden. There are many strongly held views about how best to provide night-time and week-end care.

Constructive innovations are thin on the ground. The biggest gap is between administration and doctors with financial considerations being the limiting factor. It is, however, generally accepted on all sides that sleep loss and fatigue can have adverse effects on both patients and doctors.

Nurok et al pose the question whether a surgeon who has been working most of the night is fit to perform an elective colostomy the following morning. Secondly should the patient be informed that the surgeon has had insufficient sleep and be given the option of postponement or another surgeon. In surgery there is an 83% increase in the risk of complications including massive haemorrhage, organ injury or wound dehiscence among patients who are operated on by surgeons who are fatigued. Surveys indicate that patients would be concerned if they knew that their surgeon was sleep deprived.

These issues have been discussed time and again over many decades but no solutions have been found. It is a balance between maintaining safety and providing a practical effective clinical service. Postponement of an elective operation has implications for the patient, the doctor and the hospital. The patient will have taken off work and been psychologically prepared. The doctor may lose credibility, experience and job satisfaction. The hospital will lose money and its schedules will be interrupted. A more practical solution is to organise rosters so that the surgeons are not exposed to onerous on-call the night before their elective surgery lists.

Nurok and his colleagues support the stance adopted by the Sleep Research Society that doctors who have been awake for 22 of the previous 24 hours should inform their patients and get consent before operating on them. Pellegrini et al in a reply on behalf of The American College of Surgeons disagree. They feel that mandatory disclosure is unwarranted and is oppressive and insidious. The doctors' judgement latitude should not be further curtailed. They point out that many factors affect performance such as marital difficulties, an ill family member, financial problems. Complete disclosure is impossible. They feel that the surgeons professionalism and training is the best safeguard for the patient. It is recommended, however, that surgeons are appropriately trained to understand the effects of fatigue on performance.

Solomon et al in the BMJ series on The lives of Doctors report on the dehydration risks for those working in the intensive care unit. Due to the nature and intensity of the work the doctor may not get sufficient time to obtain sufficient fluids. The authors followed 18 junior doctors over 87 case days by measuring their urine output. In 25% of instances the mean urinary output was <0.5 ml/kg/hr. Based on these results some doctors were at risk of renal injury during their shift. The clear message is that doctors need to drink more fluids when on active duty in acute units and be given adequate fluids. The hospital administration should do more provide adequate facilities. In the pursuit of cost containment many institutions do not provide any canteen facilities at night and one’s well-being is in the hands of the coin-operated dispenser.

The lives of doctors has also become central to delivery of healthcare in this country over the past 12 months. Hospital administrators are bewildered as to why doctors left and where did they go. Increased numbers have opted for General Practice and or periods of working abroad. The shortage of NCHDs is adversely affecting the delivery of many clinical services. It is now appreciated how important NCHDs are to the Irish health service. There is a growing awareness among many junior doctors find the working conditions in Irish hospitals unattractive and onerous. Tiredness affects their training and their ability to study for postgraduate exams. The drop-out from SHO rotations is excessively high. These matters will need to be addressed if the NCHD drain is to be contained. NCHDs are not a Cinderella group that can be taken for granted. Their conditions of work need to be reviewed in a manner that embraces their concerns. Excess hours and fatigue is a factor. Measures employed to change hours of work have been ham-fisted and oppressive. The doctor's judgement latitude should not be further curtailed. They point out that many factors affect performance such as marital difficulties, an ill family member, financial problems. Complete disclosure is impossible. They feel that the surgeons professionalism and training is the best safeguard for the patient. It is recommended, however, that surgeons are appropriately trained to understand the effects of fatigue on performance.

The recent literature underlines that fatigue and sleep deprivation in acute hospital services is not good for patients or doctors. The central issue is the duty roster. It needs to contain sufficient doctors to deliver the long on-call hours. Arrangements should be made so that those who have been working throughout the night do not have to undertake complex, elective procedures on the following morning. It seems straightforward and common sense but yet so difficult to implement and achieve.

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References