Differences in such preferences are difficult to predict, vary in direction and magnitude, and are often specific for a given condition.[1]

Devereaux et al highlight potential biases that might account for the reported difference in responses in their study. These biases include non-blinded interviewers questioning each of the two groups separately (interviewer bias) and the fact that patients' interviews lasted considerably longer (even with allowance for consent and the mini-mental test undertaken in the patient group alone). Furthermore, selection of patients who had no experience of either a stroke or side effects of treatment might bias their results. Patients who have experienced an episode of bleeding due to warfarin treatment report significantly lower quality of life scores.[2] Many would argue that it is not surprising that differences in preferences for antithrombotic treatment were found. Patients seem to be older and have lower educational attainment than the doctors taking part in this study. Differences in characteristics between patients and doctors may have produced differences in preferences for antithrombotic treatment. This is precisely the reason why health professionals should explicitly seek patients' views when they are making decisions about treatment. Unfortunately, asking patients about their preferences for treatment when decisions are being made on future management is often neglected by doctors.[3]

Important developments are likely to alter the dynamics of decision making between patients and doctors in the future. Information is now a freely available commodity. Initiatives such as the Cochrane collaboration actively promote consumer involvement and patient orientated information about medical effectiveness. Decision aids and other tools are being developed that will give patients access to information and allow them to express their preferences for treatment options.[4] Some clinical guidelines explicitly express and quantify the impact of patients' preferences on recommendations for treatment.[5] The findings from this study show that health professionals should be sensitive to patients' preferences and encourage the use of decision aids and information sources that can facilitate shared decision making.

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Laparoscopic performance after one night on call in a surgical department: prospective study

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Surgeons often operate during the night, and often after disturbed sleep or total lack of sleep. Impairment of surgical dexterity due to fatigue could lead to mistakes that are life threatening for the patient. Our study investigated the hypothesis that one night on call in a surgical department would adversely affect the surgeon's performance on simulated laparoscopic tasks.

Participants, methods, and results

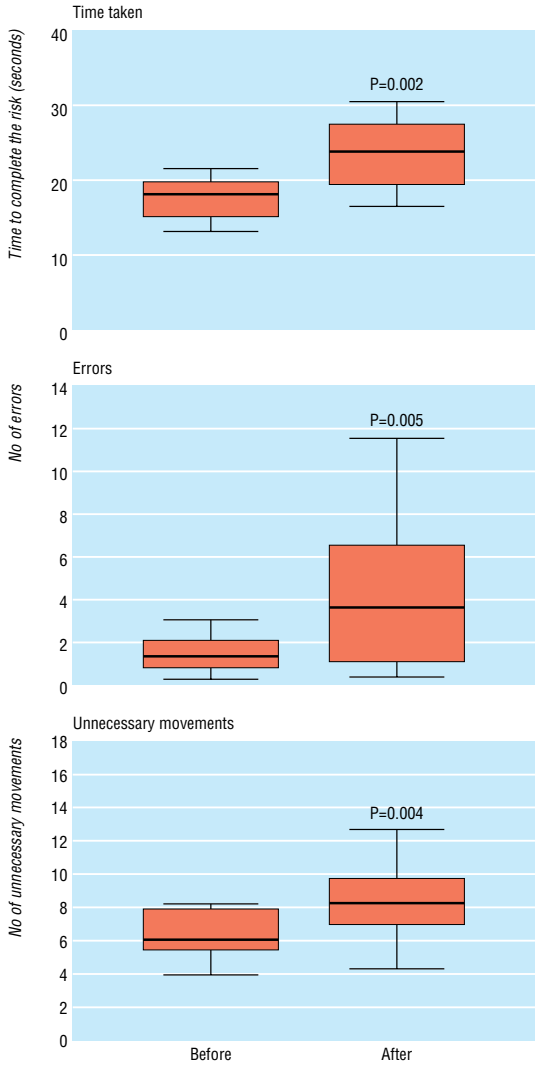
The study was carried out in a gastroenterological surgical unit at a teaching hospital. A night shift started at 3 30 pm and finished at 9 am the following day. A total sleep time of less than three hours was necessary for inclusion in the study.

All 14 surgeons in training at our department—11 men and three women—participated in the study. The median age was 34 (range 24-43) and the median time since graduation was six years (1-11 years). All trainees had similar, limited experience in laparoscopic surgery; the median number of cholecystectomies they had performed was 0 (0-5). All participants received identical pretraining on the minimally invasive surgical trainer-virtual reality (MIST-VR, Mentice Medical Simulation, Gothenburg, Sweden) by performing nine repetitions of six tasks.[1 2] The laparoscopic surgical skills of the 14 trainees were assessed on the 10th repetition of the task, which was performed during normal daytime working hours and again at 9 30 am after a night on call with impaired sleep. The period between the first and 10th repetition on the MIST was predetermined to be no longer than one month.

We analysed the data using non-parametric analysis (Wilcoxon test). We examined the difference between scores for error of motion, time of motion, and economy of motion measured during the 10th repetition of the task in the daytime and after a night on call.

The median total sleep time during the night on call was 1.5 hours (0-3 hours). After a night on call the time taken to complete the virtual laparoscopic tasks ($P \leq 0.006$) increased significantly for tasks 1, 3, 4, 5, and 6 (5.4 *v* 7.6 seconds, 5.6 *v* 7.8 seconds, 6.7 *v* 8.1 seconds, 15.0 *v* 18.1 seconds, and 18.2 *v* 23.8 seconds, respectively), and after a night shift surgeons performed significantly more errors in tasks 1 and 6 (0.6 *v* 1.0, $P=0.01$; and 1.4 *v* 3.5, $P=0.005$, respectively). The number of unnecessary movements for tasks 5 and 6 increased significantly after a night on

Data for all six tasks can be found on the BMJ's website



Simulated laparoscopic performance of task 6 by surgeons before and after a night on call. Horizontal bands indicate medians, boxes show 25th and 75th centiles, and whisker lines show the highest and lowest values

call (7.8 *v* 9.4, P = 0.008 and 6.1 *v* 8.2, P = 0.004, respectively). (Data for all six tasks and a description of each task can be found on the *BMJ*'s website.) The figure shows data from task 6. This task includes elements from most of the other tasks, is the most complex, and requires the highest levels of concentration and coordination. Previous studies have found that this task correlated best with surgical performance in vivo.[3]

Comment

Surgeons show impaired speed and accuracy in simulated laparoscopic performance after a night on call in a surgical department. Our results are consistent with the findings of Taffinder et al.[4]

Previous studies have shown that effects of sleep deprivation on cognitive performance do not become consistently apparent until after 36-40 hours of total lack of sleep.[5] Our results show that significant deficits in psychomotor performance occur after 17 hours on call with disturbed night sleep. Factors connected with surgical work, such as emergency workload, stress, and emotional demands, may potentiate the effects of sleep deprivation alone.

Further studies should determine how long it takes for surgeons' laparoscopic performance to recover after an extended period on duty and should be aimed at developing and evaluating countermeasures that can maximise alertness and reduce fatigue.

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A memorable consultation

"Much better after seeing you, Doctor"

It had been a busy week—in mid February, and I was single handed while my partner recharged his batteries golfing in Spain. The vague headache began some time during Friday, but, by evening surgery, I felt decidedly feverish and unwell. I reasoned that it was just a reaction to the heavy workload that week and that I would be fine after a night's sleep. I went straight to bed but became increasingly concerned with the aches down the back of my neck and shoulders. By 10 pm, meningitis was the only reasonable diagnosis. I telephoned Tom, a retired colleague who had helped me out with the odd locum work, and asked him for help.

By the time he arrived, I was prepared for admission and feeling very sorry for myself. He sat down on the bed and went through my history. It was remarkable. As I related the events of the day, the pains in my head and neck gradually and miraculously eased. By the time he had examined me, I was perfectly prepared to accept his diagnosis of flu.

Somewhat sheepishly, I reflected on how often I had felt that patients were a little sycophantic in their remarks at the end of a consultation—"Much better having been to see you, Doctor." I now understand. I'm not sure if a Pentium 200 would have the same effect.

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