

# VIEWS & REVIEWS

## Safety and the flying doctor

PERSONAL VIEW **Francesco P Cappuccio, Steven W Lockley**

Interest, curiosity, or dismay—which feeling predominates when we learn from BBC *Newsnight* that our NHS employs doctors who commute from Poland to cover the out of hours duties that local GPs are unable to work because they are too tired at night? Is it interest in an innovative solution for modern pan-European healthcare provision, curiosity in discovering huge variations in the standard of living across the medical profession in an open Europe, or dismay that the government's emphasis, that healthcare practice should be based on the best scientific evidence, is little more than lip service?

Working continuously for a long time, particularly at night, increases the risk of making errors and causing injury, which is why many professions limit the number of hours of continuous duty. These risks also apply to the medical profession: tired doctors make mistakes that harm patients (*N Engl J Med* 2004;351:1838-48) and themselves (*N Engl J Med* 2005;352:125-34) because of fatigue, attentional failures, and ensuing reduced performance (*N Engl J Med* 2004;351:1829-37). Seventeen hours without sleep reduces performance to the level of someone with a blood alcohol concentration of 0.05%, while performance after being awake for 24 hours is equivalent to being legally drunk (0.10% blood alcohol concentration). With this level of alcohol induced impairment, we are not legally allowed to drive or practise medicine and are considered a danger to the public. Although Polish general practitioner Dr Robinski, who featured in the *Newsnight* programme, did not work for 24 hours without sleep, his schedule as reported was certainly punishing. Dr Robinski is said to have woken at 4 am in Poznan to embark at 5 am on a four hour drive to Wroclaw airport, where he took a two and a half hour flight to Glasgow. He then drove to Aberdeen, where he arrived four hours later, having been awake for nearly 12 hours. After a one hour break, when Dr Robinski had a shower and a hamburger, he was "ready" to see his first patient at 6 pm, 15 hours after waking. By the end of this

shift he had been awake for over 19 hours. After finishing work late that evening, Dr Robinski had a night's sleep. The next day he considered himself fit to work nine hours in frontline care, despite admitting that his schedule is "a marathon."

What is the message here? It is inevitable that performance is degraded by such long work hours. The combination of acute and chronic sleep deprivation inherent in such schedules rapidly multiplies the risk of a fatigue related error—especially for tasks that are highly learned or "second nature" such as driving, selecting a drug dose, or giving an injection. Moreover, sleep deprived individuals are unable to rate their own levels of sleepiness accurately and often underestimate the deterioration in their performance (*Sleep* 2003;26:117-26). Patients would have every right to be concerned about being cared for by doctors who have been awake for 19 hours straight. While the onus is placed on the individual doctor to be fit for

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duty, it is disingenuous for an employing authority to claim it is only responsible for the doctor once he or she starts the shift, knowing full well that they have employed a doctor who requires a 12 hour commute to get to work. Governance has moral dimensions. By turning a blind eye to the extended commute required by this quick fix solution, individual doctors and their employers must lay themselves open to medical malpractice claims.

Throughout the 20th century, doctors—and junior doctors in particular—have been made to work marathon shifts, arranged in impossible rotas. The European Commission has targeted the problem of working practices that are unsafe for both patients and doctors, gradually reducing doctors' work hours. Its working time directive will limit junior doctors to a 48 hour week and 13 hours of continuous duty from August 2008. This

directive applies to all EU countries, but only Sweden, Denmark, the Netherlands, and the UK currently comply. While Europe-wide work hours do contribute to the total number allowed, commuting time is not counted. Laudably, the UK medical profession has embraced the issue of junior doctors' work hours. The Department of Health's New Deal improved the working conditions of junior doctors, and the Royal College of Physicians has developed guidelines to minimise sleep debt and fatigue in junior doctors (*Clin Med* 2006;6:61-7). The NHS workforce has also committed considerable resources to pilot studies to assess the implications of the imminent enforcement of the European working time directive on junior doctors' performance ([www.healthcareworkforce.nhs.uk/working\\_time\\_directive/pilot\\_projects](http://www.healthcareworkforce.nhs.uk/working_time_directive/pilot_projects)). These hard-won efforts to protect patients from the damaging effects of fatigue are now being reversed by the unsafe working practices that result from importing even more fatigued doctors from overseas.

It is the number of hours awake, not the number of hours of work, that increases fatigue related risk, and there is an institutional duty of care to consider whether doctors can be rested adequately under conditions that, while self imposed, predictably degrade their performance. We must develop working practices that protect patients from sleepy doctors, and sleepy doctors from themselves, and apply these standards equally across the EU as a whole, as was the intent of the working time directive.

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