# CARPHOLOGY by Rajendra

Practical Neurology 2006; 6: 136

People who had a myocardial infarct in 1998 were just as likely to have a stroke, especially in the following month, as those who had their heart attack a decade earlier. This is the finding of a community based cohort study of residents of Olmsted County, Minnesota, which used medical records of the Rochester Epidemiology Project to ascertain the diagnosis. According to the authors, improvement in the management of myocardial infarction seems to have had little effect on risk of stroke.

*Ann Intern Med* 2005;**143**:785–92

In a prospective study of 1740 people over 65 years of age and without cognitive impairment, researchers in Washington found that the incidence of dementia was 13 per 1000 person-years for those who exercised three or more times per week compared with 20 per 1000 person-years for those who exercised less. Interestingly, the researchers used a high threshold for eligibility to enter the study by excluding individuals in the lowest 25th percentile of those without cognitive impairment. They argue that decline in habitual exercise may be an early behaviour change that precedes cognitive impairment, and could result in misclassification of some individuals if strict selection criteria are not used.

*Ann Intern Med* 2006;**144**:73–81.

Smallpox vaccination is being reused in the United States in response to concerns about bioterrorism. A report finds 214 vaccine related adverse neurological events in 665 000 vaccinated people (mostly defence personnel). The most common event was headache (95 cases), followed by non-serious limb paraesthesias (17) or pain (13), and dizziness (13). Serious events included 13 cases of suspected meningitis, three of suspected encephalitis or myelitis, 11 of Bell's palsy, eight seizures (including one death), and three of the Guillain-Barré syndrome. All but two occurred within 12 days of vaccination.

*JAMA* 2005;**294**:2744–50.

Recombinant human coagulation factor VIIa (rFVIIa) has been licensed by the US Food and Drug Administration since 1999 for bleeding in patients with haemophilia. A review of the FDA's adverse events database over four years found that of 185 reports of thromboembolic events associated with rFVIIa, unlabelled indications accounted for 151. Adverse events included stroke (n=39), acute myocardial infarction (n=34), other arterial thromboses (n=26), and pulmonary embolism (n=32). In 36 (72%) of 50 reported deaths, the probable cause of death was the thromboembolic event. Apparently, rFVIIa is being used "off licence" in patients with uncontrolled bleeding due to to trauma, blood loss, thrombocytopenia, and platelet or liver dysfunction.

*JAMA* 2006;**295**:293–8.

A retrospective cohort study reported in the fun filled Christmas issue of the BMJ looks at how soap operas portray the likelihood of recovery for patients in coma. Nine soap operas provided 64 characters who experienced a period of unconsciousness lasting 24 hours or more. Fifty seven (89%) "patients" recovered fully, five (8%) died, and two (3%) remained in a vegetative state. Mortality was significantly lower than would be predicted from data from an authoritative meta-analysis (non-traumatic coma 4% v 53%; traumatic 6% v 67%). Those who recovered regained most functions on the day they regained consciousness. This optimistic portrayal may contribute to unrealistic expectations among viewers, say the authors.

*BMJ* 2005;**331**:1537–9.

A small but important experiment documents what we all have experienced—grogginess soon after waking up. Nine paid participants (between 20–40 years old) had their cognitive performance tested immediately on awakening from sleep and at subsequent points. Cognition was most severely affected in the first three minutes after waking (65% of the best score) and gradually improved. Between 21 and 61 minutes of wakefulness, the mean cognitive performance ranged from 83% to 86% of peak performance and was not significantly different from performance at subsequent points. The only woman in the experiment had similar findings. The message is simple—don't wake up and drive off.

*JAMA* 2006;**295**:163–4.

A laboratory based case-control study in Australia looked for viral nucleic acids as evidence of viral infection in dried blood from the newborn screening cards of 443 children with cerebral palsy and 883 controls. Previous studies have looked at surrogate markers of infection (for example, chorioamnionitis, maternal pyrexia, raised C reactive protein values). The risk of cerebral palsy is nearly doubled with exposure to herpes group B viruses. The high prevalence of viral infection, even in the control group (39.8%), suggests according to the authors, that other factors (for example, genetic susceptibility to infection) are also needed for cerebral palsy to occur.

*BMJ* 2006;**332**:76-80

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