

ABSTRACTS

DRINK PLENTY OF FLUIDS?

'Drink plenty of fluids.' This is the advice usually given to patients with respiratory infections. The rationale is that this will replace insensible loss from fever and respiratory tract evaporation, correct dehydration from reduced intake and reduce the viscosity of mucus. However, is there any evidence for this advice?

A study from Queensland looked for hard evidence. The authors used the Cochrane Acute Respiratory Infections Group search strategy, together with additional terms, and did a conventional search of the Cochrane Central Register of Controlled Trials, Medline, Embase and Current Contents. They examined relevant papers and contacted experts in the subject. They found no randomised controlled trials comparing increased and restricted fluid regimens in patients with respiratory infections. However, they found 2 prospective prevalence studies that reported hyponatraemia in children with moderate to severe pneumonia. None of the children had shown clinical signs of dehydration. Symptoms associated with hyponatraemia were not reported, but 4 children with a serum sodium below 124 mmol/l died during one study. They also found several cases in which patients with respiratory infections developed hyponatraemia, some with symptoms. All the patients were successfully treated with fluid restriction. The authors found data to suggest that giving increased fluids to patients with lower respiratory infections may cause harm. There are no data on upper respiratory tract infections.

There are sound theoretical reasons for increasing fluid intake to cause harm. Increased antidiuretic hormone has been reported in children and adults with bronchitis, bronchiolitis and pneumonia. There are several possible mechanisms for this increased hormone secretion, acting through fever, hypoxia, hypercarbia, pain, emotion or nausea. Lung hyperinflation and pulmonary infiltrates may stimulate hormone secretion by causing a false perception of hypovolaemia by intrathoracic receptors. So, giving fluids while antidiuretic hormone is increased may theoretically lead to hyponatraemia and fluid overload.

The authors conclude that until there is evidence for the use of increased fluids in lower respiratory tract infections, doctors should be cautious in recommending this.

Guppy MP, *et al.* *BMJ* 2004; **328**: 499-500

INTENSIVE VERSUS MODERATE LIPID-LOWERING THERAPY

It is known that statins reduce both atherogenic lipoproteins and cardiovascular morbidity and mortality. But how to use them and what the target level for lipid reduction is remains uncertain, according to Nissen *et al.*, publishing in the *Journal of the American Medical Association* recently.

The objective of their study was to compare the effect of regimens designed to produce intensive lipid lowering or moderate lipid lowering on coronary artery atheroma and progression. Between June 1999 and September 2001 they recruited 654 patients who were on the double-blind, randomised active control multicentre trial (Reversal of atherosclerosis with aggressive lipid lowering (REVERSAL)). Intravascular ultrasound was used to measure progression of atherosclerosis. Patients were randomly assigned to receive a moderate lipid-lowering regimen consisting of 40 mg of pravastatin, or an intensive lipid-lowering regimen consisting of 80 mg of atorvastatin. The main outcome measure was the percentage change in baseline atheroma volume.

They found that for patients with coronary heart disease, intensive lipid-lowering treatment with atorvastatin reduced progression of coronary atherosclerosis compared with pravastatin. Compared with baseline values, patients treated with pravastatin showed progression of coronary atherosclerosis. The authors suggest that these differences may be related to the greater reduction in atherogenic lipoproteins and C-reactive protein in patients treated with atorvastatin.

Nissen SE, *et al.* *JAMA* 2004; **291**: 1071-1080.

ADENOIDECTOMY VERSUS ANTIBIOTICS

Is adenoidectomy an effective way to prevent recurrent otitis media in infants? A new study from Finland suggests not. The researchers' objectives were to evaluate the efficacy of adenoidectomy compared with long-term chemoprophylaxis and placebo in the prevention of recurrent acute otitis media in children aged between 10 months and 2 years.

They recruited 180 children aged 10 months - 2 years with recurrent acute otitis media. The trial was between adenoidectomy, sulfafurazole (sulphisoxazole) 50 mg/kg body weight, given once a day for 6 months or placebo. Follow-up lasted for 2 years, during which time all symptoms and episodes of acute otitis media were recorded.

The main outcome measure was failure of medical intervention to prevent recurrent otitis media (2 episodes in 2 months or 3 in 6 months or persistent effusion) during follow-up. The number of episodes of acute otitis media, number of visits to a doctor because of any infection, and number of antibiotic prescriptions were measured for each participant.

The authors found no significant differences between the groups in the number of episodes of acute otitis media, visits to a doctor, antibiotic prescriptions, and days with symptoms of respiratory infection. They concluded that adenoidectomy, as the first surgical treatment of children aged 10 - 24 months with recurrent acute otitis media, is not effective in preventing further episodes of otitis media and cannot be recommended as the primary method of prophylaxis.

Koivunen P, et al. *BMJ* 2004; **328**: 487.

ESTIMATION OF AIDS ADULT MORTALITY BY VERBAL AUTOPSY IN RURAL MALAWI

The objective of the study by Henry Doctor and Alexander Weinreb from Populations Studies Center of the University of Pennsylvania and the Department of Sociology and Anthropology at the Hebrew University in Jerusalem was to estimate AIDS-related adult mortality using verbal autopsies (VA) in rural Malawi, which has a high prevalence of the disease.

Verbal autopsy information was collected from relatives and neighbours who described the circumstances leading to death in 92 adults in three rural areas. AIDS-related deaths were identified using a standard World Health Organisation algorithm and the observed number of deaths was compared with the expected. Using previous census data for pre-AIDS mortality information, an 'excess mortality factor' was calculated which was considered to be AIDS-

related. From this, the authors calculated that 74.9% of the observed deaths in 1998 to 2001 would be from AIDS.

The results were consistent with those found in studies in other areas of sub-Saharan Africa at earlier stages of the epidemic. The authors conclude that VA information can be used to estimate the distribution of AIDS- and non-AIDS-related deaths, even in a rural population with low levels of education.

Doctor V and Weinreb A. *AIDS* 2003; **17**: 2509-2513.

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SINGLE SUTURE

MURDER MOST FOUL

As a result of a strange murder case, all 45 000 doctors practising in Buenos Aires were ordered to re-register by 1 January – and to submit samples of their signature. This was a precaution against the fraudulent issue of death certificates, sparked by the suspicious death of a wealthy society figure, María Marta García Belsunce, who was certified of having died of a heart attack after a fall in her bathroom. A month later her body was exhumed by order of a judge, and postmortem examination showed 5 gunshot wounds in the victim's head. The crime remains unsolved, but further investigations into the case have revealed widespread corruption among the medical profession, with doctors supplying pre-signed death certificates to funeral undertakers in return for money. This allowed families of the deceased to nominate their chosen cause of death for insurance claims, and worse.

Rogers GI. *Lancet* 2004; **363**: 47.