This month • transport problems • antibiotics and sore throats • NSAIDs • environmental lead

Transport problems in rural areas

A STUDY carried out in eight Cotswold parishes has highlighted the decline of services and transport provision for the elderly and disabled. With rural depopulation and an increasing proportion of elderly and retired people living in country areas, has come a withdrawal of village services such as shops, post offices and doctors. As these become centralized in larger towns, so rural bus and train services are withdrawn, leaving increasing numbers of the elderly and disabled stranded in the countryside. Any doctor in rural practice will recognize the situation and know that it is getting worse. The emphasis on community care places heavy demands on caring relatives, but rising house prices in country areas make it difficult for families to remain. The geographers who undertook this survey have performed a valuable service by documenting the serious inequalities which exist in access to basic services for the elderly and for imaginative responses rather than stoical acceptance. (D.H.)

Source: Gant RL, Smith JA. Journey patterns of the elderly and disabled in the Cotswolds: a spatial analysis. *Soc Sci Med* 1988; **27:** 173-180.

Antibiotics and sore throats

THE debate about the management of sore throat in general practice rages on with two papers in *Family Practice.* The first of these reports a study conducted by a general practitioner in Israel who set out to confirm his admitted bias against antibiotic treatment for sore throats. He claims to have shown that patients given antibiotics did no better for having had treatment and that they returned more often with respiratory complaints in the six months following initial treatment. Furthermore, he states that he had no difficulty in not prescribing antibiotics. However, his practice population have been educated over many years to accept symptomatic treatment only for sore throats. Unfortunately, the antibiotic and no antibiotic groups were not randomized, nor was the comparison blind.

The second paper is on the management of streptococcal pharyngitis in relation to the prevention of rheumatic fever and is similar to the study of Howie and Foggo (*J R Coll Gen Pract* 1985; **35:** 223-224) in that it looked at data for the incidence of acute rheumatic fever and compared this with data already available on the incidence of streptococcal infection and its treatment with antibiotics. Using quite different assumptions they come to the same conclusion as Dr Herz — that the benefits of treatment with penicillin to prevent acute rheumatic fever are outweighed by the disadvantages of treatment failures and the risks of anaphylaxis. They also make the important point that all the rare endpoints, such as rheumatic fever and anaphylaxis, will be hidden from the average practitioner in the context of millions of people who do not suffer from them. Studies like this guide us in our management but while the justification for penicillin as prophylaxis against rheumatic fever has been demolished one is left with the possibility that antibiotic treatment may still be justified for symptom relief. Could this explain the high return rates for the antibiotic group in the Israeli study? The debate continues. (C.B.)

Sources: Herz MJ. Antibiotics and the adult sore throat — an unnecessary ceremony. *Fam Pract* 1988; **5:** 196-199. Hutten-Czapski P. Management of streptococcal pharyngitis: the conundrum of acute rheumatic fever. *Fam Pract* 1988; **5:** 200-208.

NSAID-induced litigation?

THE Americans are waking up to the problems of non-steroidal anti-inflammatory drugs (NSAIDs), as evidenced by an editorial and a major research paper in the *Annals of Internal Medicine.* These two publications are interesting not least because a problem which is well-recognized in this country seems to be relatively newly-perceived in the USA, but also because the author of the editorial did not reference any of the important British publications on this subject.

The Arthritis Advisory Committee of the Food and Drug Administration met a few months ago and an entire session was devoted to developing a new labelling system for NSAIDs and to their risks of ulceration, bleeding and perforation. New wording for package inserts was proposed, including statements about serious and fatal events occurring at any time in patients taking long-term NSAIDs, the development of asymptomatic mucosal lesions, and therefore more serious events without premonitory symptoms, and finally about patients with previous lesions, general ill health or advanced age being most susceptible to these complications. None of this comes as a surprise to us, but it is obviously having reverberations in North America, because the editorial concludes that until information about the best drugs and dosages to use is available, the 'practice of medicine will be seriously affected by the medical implications of the new FDA class labelling on the dangers of NSAID gastropathy'.

The paper on which this editorial was based is a report from Nashville in which 122 patients enrolled with Medicaid who were over the age of 60 years and dying in hospital from gastrointestinal haemorrhage were carefully matched to 122 controls. The cases were more likely to have had a prescription for an NSAID within 30 days before the onset of illness and there was a consistent association between fatal ulcer disease and current NSAID use in all age groups, males and females, whites and blacks. The study adds to the growing evidence that NSAIDs can increase the risk of clinically serious peptic ulcer disease in the elderly. Not news, but a message which bears repeating. (R.J.)

Sources: Roth SH. Non-steroidal anti-inflammatory drugs: gastropathy, deaths and medical practice. *Ann Intern Med* 1988; **109:** 353-354. Griffin MR, Ray WA, Schaffner W. Non-steroidal anti-inflammatory drug use and death from peptic ulcer in elderly persons. *Ann Intern Med* 1988; **109:** 359-363.

Environmental lead and childhood development

ALTHOUGH general practitioners are unlikely to be presented with cases of lead toxicity or be involved in the investigation of developmental effects of lead exposure, theirs would be powerful voices in any campaign for a lead free environment. A recent study in the *New England Journal of Medicine* provides further evidence of an inverse association between psychological development and levels of lead in the blood during infancy and early childhood.

This is the second report from the Port Pirie cohort study which began in 1979. Port Pirie is 200 km from Adelaide, and is situated downwind of a lead smelter. All of the general practitioners in the area agreed to submit patients to the study. A cohort of over 700 children was established, and over 80% are still in the study four

years later. Blood levels were taken antenatally around the time of birth and at least once a year subsequently. Psychological tests were applied when the group reached four years old, and included measures of cognition, perceptual performance and memory.

Identifying confounding variables is a problem common to all studies on lead and development. For example, higher social class infants are likely to perform better at testing, and are less likely to be exposed to environmental lead. Is social class a confounding variable or is some of the difference mediated through lead exposure? The study included an assessment of all the known determinants of child development, whether or not they were likely to be associated with lead exposure.

The results showed a progressive decrease in psychological scores with increase in mean levels of lead in the blood, with no threshold established. Importantly, the blood levels seen in this study are not atypical for urban and industrial populations elsewhere. The association between lead and development in multivariate analysis was reduced by half after the effects of possible confounding variables had been included, but the association remained highly significant. As stated by the authors, this approach may underestimate the true effects of lead.

Unfortunately, the relative contribution of lead compared with other variables in child development is difficult to assess from the results. In the range of blood lead levels 0.5 to 1.5 μM differences in performance were similar to those differences associated with manual or non-manual fathers' occupation. The authors are reluctant to infer causation from their study and therefore not surprisingly make no recommendations in terms of social policy. Like the diet–heart hypothesis, action on environmental lead is likely to depend on political rather than scientific factors.

(A.W.)

Source: McMichael AJ, Baghurst PA, Wigg NR, *et al.* Port Pirie cohort study: environmental exposure to lead and children's abilities at the age of four years. *N Engl J Med* 1988; **319:** 468-475.

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INFECTIOUS DISEASES UPDATE: AIDS

HIV prevalence screening of pregnant women

The fascinating but frustrating debate continues on whether prevalence testing for the human immunodeficiency virus (HIV) should be performed with consent from participating individuals or by the screening of anonymous serum samples without consent. The working group on the monitoring and surveillance of HIV infection and the acquired immune deficiency syndrome (AIDS) has recommended antenatal testing for HIV infection on a voluntary basis (with provision for voluntary un-named testing) as a first step in the surveillance of the general population.[1] The group proposes a one-year study of three samples of 20 000–30 000 women — two groups from high risk areas in London and Scotland and one from a low risk area in England and Wales.

The group recognized the potential drawbacks of this approach, such as biased results from the refusal of some women (possibly those at greater risk of HIV infection) to take the test. However, there are considerable advantages and these include the clinical value to the pregnant woman and the ability to link basic risk group information to a test result.

However, the British Medical Association's response,[2] although generally supportive of the group's recommendations, declares its preference for involuntary unnamed testing. The association justifies this by arguing that when a sample is strictly anonymous it can no longer be said to be associated with the source in any way.

Each of these two approaches to HIV prevalence testing has significant advantages and disadvantages. Bearing in mind the importance of the spread of the epidemic, the use of both surveillance methods would possibly provide more complete and interpretable information than if either were used in isolation.

Provision of injecting equipment to drug users

Over 50% of the people in Scotland who have been tested and found to be infected with HIV are intravenous drug users; the corresponding proportion for the rest of the UK is less than 10%. As a result the Scottish Home and Health Department have issued circulars[3,4] promoting the role of the pharmacist and the general practitioner in the provision of needles and syringes for intravenous drug users in Scotland. Pharmacists are being encouraged to facilitate the sale of injecting equipment, while general practitioners are being asked to provide needles and syringes free of charge to patients who are judged to be unable or unwilling to stop injecting. In an attempt to prevent needlestick injuries it is strongly recommended that pharmacists should be assisted by health boards in providing adequate safe disposal facilities in their premises for the return of used injecting equipment.

It is estimated that between 30 000 and 44 000 new opioid misusers in England and Wales consult general practitioners each year[5] and it is likely that the level of contact with primary care in Scotland is similar. General practitioners are therefore uniquely placed to provide a service for injecting drug users and consequently are being encouraged to provide advice, guidance and support to those who are either at risk of, or who have already got HIV infection.

At present minimal scientific evidence exists concerning the effect of needle and syringe exchange/provision on the spread of HIV infection. However, two studies[6] currently being conducted in Holland and Australia have shown encouraging results. In Amsterdam where 700 000 needles and syringes were distributed to intravenous drug users in 1987, there is evidence to suggest significantly safer needle sharing behaviour among 'exchangers' than 'non exchangers'. In New South Wales, where more than 64 000 needles and syringes have been distributed to intravenous drug users from pharmacies, the percentage of HIV infection attributable to intravenous drug usage has remained constant at 7%.

References

1. Anonymous. Testing for HIV infection. *Lancet* 1988; **1:** 1293.
2. Anonymous. BMA view on HIV prevalence screening. *Lancet* 1988; **2:** 582.
3. Scottish Home and Health Department. *AIDS and drug misuse: sale of injecting equipment by retail pharmacists. NHS circular.* June 1988.
4. Scottish Home and Health Department. *Medical role in the prevention and management of drug misuse and AIDS: role of general medical practitioners. NHS circular.* September 1988.
5. Advisory Council on the Misuse of Drugs. *AIDS and drug misuse part I. Report by the Advisory Council on the Misuse of Drugs.* London: HMSO, 1988: 29-30.
6. Anonymous. Do free needle programs decrease HIV infection? *AIDS Alert* 1988; **3:** 176.

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