

This month ● carers of the elderly ● AIDS ● multiple sclerosis ● under-age smoking

Carers of the elderly

OF all the effects resulting from our increasing population of elderly people, the problems of those caring for demented relatives are the most horrifying. In a review of the mental and emotional health of care givers, Morris and colleagues have summarized research that examines the subject from various viewpoints.

First, most studies report an expected increase in rates of depression among carers, although the size of the increase varies between studies. One possible reason for the discrepancy is the nature of the sample; those carers best able to cope are least likely to come into contact with the psychiatric services, and one study assessing a community sample found equivalent rates of depression among carers of demented and non-demented relatives. The behaviours of the dementia sufferer most likely to be seen as difficult are incontinence, over-demanding behaviour and the need for constant supervision.

There are conflicting data on the effects associated with closeness of relationships. Care-givers who are further from the dementia sufferer in terms of blood relationships have better health. However, for spouses emotional strain depends on the previous marital relationship and is reduced by a closer relationship. The effect is also thought to depend on attribution factors, so that care-givers are more likely to be depressed if they think that their spouse's behaviour is caused by themselves. Informal or voluntary support reduces the degree of depression, and the demands made on statutory community services.

The review concludes that it may be possible to identify a group of care-givers at higher risk of becoming depressed: those with a poor sense of being able to control their own reactions, little informal support, and a previously unhappy marital relationship.

It also reminds us that many patients are admitted to geriatric units to relieve exhausted or demoralized carers. However, a paper from Liverpool in *Age and Ageing* shows how doctors can treat such admissions in a positive way. It describes the use of planned, short-term inpatient care for disabled (not demented) elderly patients over a year. Strikingly, requests were accepted direct from general practitioners or hospital staff: many of the patients

were already known to the hospital staff and 68 out of 104 had been inpatients somewhere in the hospital in the previous five years, but no formal assessment was otherwise made on the remainder. All but two would have required continuing residential care but for the presence of a carer. The carers were almost always relatives, and 39% were of the same generation as those admitted. The demand for relief reached a maximum in the summer months, but only 36 carers took the opportunity to go on holiday. The authors thought that this kind of admission should be part of a standard package offered to those caring for elderly and infirm patients. The demand was considered to be finite and within the scope of many existing geriatric units. (D.J.)

Sources: Morris RG, Morris LW, Britton PG. Factors affecting the emotional well being of the caregivers of dementia sufferers. *Br J Psychiatry* 1988; 153: 147-156. Harper N, McDowell DK, Turner JJ, Sharma AK. Planned short-stay admission to a geriatric unit: one aspect of respite care. *Age Ageing* 1988; 17: 199-204.

Living with AIDS

WE know that the human immunodeficiency virus (HIV) is transmitted in body fluids; it has been isolated from saliva, urine and even tears, although the levels of detectable virus are extremely low and these fluids are probably not a means of viral transmission. However, there is great fear of the acquired immune deficiency syndrome (AIDS) and rational accounts of modes of transmission often fail to counter irrational fears about contracting the illness by non-sexual contact with infected people. This study from Palermo is a welcome addition to the epidemiological literature on AIDS transmission, defining the main routes of transmission of the virus in a number of families.

The study looked at 43 index cases who were HIV-positive, 36 spouses or heterosexual partners, 28 children and 55 other adult household members who were neither sexual partners of the index cases nor drug abusers, but had lived in the same household for at least a year after the study began. The investigators also included a sub-group of young people who were occasional sexual partners of other HIV-positive subjects, contrasting their rate of seropositivity with that of the longer-standing sexual partners of the in-

dex cases in the main study.

None of the household contacts, who shared kitchen, bathroom and toilet facilities as well as having personal contact with the index cases, were HIV-positive and were clinically and immunologically normal. Of the 36 sexual partners, six had antibodies to HIV and these all belonged to a group who had had frequent and regular sexual activity with the index case over the last two years. In contrast, the occasional partners of HIV-positive people who had had irregular and infrequent sexual contact had not become HIV-positive. Condom use in both these groups was erratic and difficult to evaluate. Of the 28 children studied two had AIDS related complex and four were HIV-positive. The latter were all born to HIV-positive mothers, three of whom were index cases and one of whom was the sexual partner of an index case. No other infection in the children was documented. In eight families, in which the father was the only one infected, none of the children were infected. (R.J.)

Source: Romano N, de Crescenzo L, Lupo G, et al. Main routes of transmission of human immunodeficiency virus (HIV) infection in a family setting in Palermo, Italy. *Am J Epidemiol* 1988; 128: 254-260.

Multiple sclerosis and solar radiation

MULTIPLE sclerosis was first recognized 150 years ago, but we still know little about its cause. It is more common in temperate climates such as northern Europe and North America with a low frequency in tropical areas. This distribution, with a strong correlation between latitude and higher prevalence rates, has led to a more detailed study based on American states and in particular North Dakota.

A review of hospital admission rates for multiple sclerosis in this part of the USA shows a correlation with solar radiation both in place and time — during seasonal weather changes with diffuse solar radiation, high humidity and rainfall, hospital admissions increase. Solar radiation and multiple sclerosis are somehow linked, but the mystery remains to be unravelled. (D.H.)

Source: Laborde JM, Dando WA, Teetzen ML. Climate, diffused solar radiation and multiple sclerosis. *Soc Sci Med* 1988; 27: 231-238.

Under-age smoking

IN a recent paper in *Health Promotion*, researchers from a university department of marketing provide evidence that cigarette advertising is important in promoting and re-enforcing smoking among the young.

The paper reports an interview survey of 726 Scottish children aged between six and 17 years from middle and working class families who were questioned regarding smoking behaviour. Comparison was made between stated cigarette brand preferences and parents' stated brand preferences. Overall, 18% of children aged 12-17 years were current smokers, and 34% had previously smoked. Smokers, older children and children whose parents smoked tended to make better judgements of the brands preferred by teenagers and adults. Differences in brand preferences attributable to socioeconomic status were also reported. Only 17% of the 66

children who smoked had non-smoking parents.

The authors suggest that young people are much more aware of the brand names and imagery of cigarettes than adults realize, and that under-age smokers are more aware than other children. Many young smokers are 'getting something' out of cigarette advertising in the form of perceived support from society and reduction of the internal conflict between positive and negative aspects of smoking. Young smokers have a heightened preference for the brand most preferred by adults and this may result from copying parental, adult and peer behaviour as well as the influence of various promotional devices. The idea that advertising cues and reinforces brand preferences among under-age smokers seemed particularly plausible.

The predominant influences on under-age smoking behaviour will always be difficult to determine, but the authors con-

clude their paper by suggesting that there is now sufficient evidence to call for a ban on all sales promotion of tobacco. (J.C.)

Source: Atiken PP, Leather DS, Scott AL, Squair SI. Cigarette brand preferences of teenagers and adults. *Health Promotion* 1988; 2: 219-226.

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FILL THIS SPACE

Contributions to the Digest pages are welcome from all readers. These should be from recent papers in research journals which general practitioners might not normally read. Send to: The Editor, Journal of the Royal College of General Practitioners, 8 Queen Street, Edinburgh EH2 1JE. Please quote the full reference to the article (authors, title, journal, year, volume, page range).

INFECTIOUS DISEASES UPDATE

Salmonella and chicken eggs

Preventing salmonella infection from chicken has long depended upon adequate thawing and cooking and until recently chicken eggs have not been a cause of great concern. Unfortunately *Salmonella enteritidis* phage type 4 has recently been implicated in a number of outbreaks of food poisoning associated with chicken eggs and the following guidelines on the use of eggs have been distributed by the Department of Health.

Recipes currently using raw shell eggs and which involve no cooking should be amended to specify the use of pasteurized eggs. The practice of using raw shell eggs as a binder for sandwich fillings should cease as should the use of raw eggs in enteral feeds and fortified foods or drinks. Any other practices which entail the use of raw shell eggs should also cease.

There are a number of hygiene rules for the storage, handling and preparation of eggs which should be followed:

- Eggs should be stored in a cool dry place, preferably under refrigeration.
- Eggs should be stored away from possible contaminants like raw meat.
- Stocks of eggs should be rotated — first in, first out.
- Hands should be washed before and after handling eggs.
- Cracked eggs should not be used.
- Food preparation surfaces, utensils and containers should be regularly cleaned and always cleaned between the prepara-

tion of different dishes.

- Egg dishes should be consumed as soon as possible after preparation, or refrigerated if not for immediate use.
- Egg dishes to be eaten cold should be refrigerated.
- Egg dishes to be eaten hot should be held at or above 62.7 °C.

Respiratory syncytial virus infection

The annual outbreak of this infection began in all parts of the UK during November 1988. It usually reaches its peak in January or February. Like influenza, outbreaks of respiratory syncytial virus (RSV) infection can dramatically increase the workload of both general practitioners and hospital staff. The specific diagnosis of RSV infection has been made simpler with a commercially available kit to detect fluorescent antibodies on nasopharyngeal aspirates. In centres which do not have a virus laboratory this test is currently being carried out by bacteriology departments.

It is not always realized that the respiratory syncytial virus is associated with a range of symptoms, not just the classical bronchiolitis. A coryzal illness, diarrhoea and vomiting, unexplained fever and pneumonia have all been associated with the virus. For the more severely ill and for those in whom complications might be expected (for example, children

with congenital heart disease) treatment with inhaled ribavirin is now being evaluated by a number of centres. This antiviral drug, although expensive, appears to be largely free of side effects when given by this route and is simple to administer.

Erythema infectiosum

This long unexplained but presumed viral illness has now been shown to be due to human parvovirus type B19. Outbreaks usually occur in young children with marked redness of the cheeks, circumoral pallor and sometimes fever. This may be the limit of the illness but a rash can develop on the trunk over the next few days which fades gradually. The importance of this infection is that it can cause temporary bone marrow arrest resulting in aplastic crises in patients with chronic haemolytic anaemias. This can also occur *in utero* with the fetus becoming anaemic, leading to hydrops fetalis. Lymphadenopathy and transient arthritis also occur and may be presenting features, especially in adults. The diagnosis is made serologically.

Suggestions for topics to include in future updates are welcomed and should be passed to the contributor, Dr E. Walker, Communicable Diseases (Scotland) Unit, Ruchill Hospital, Glasgow G20 9NB (041-946-7120), from whom further information about the current topics can be obtained.