

sion as part of the computer package of an integral network interface which conforms to some independent non-proprietary standard. The X25 interface provided by the Torch XXX, or the Ethernet-based interfaces for some of the IBM PC clones are examples of this trend. When a general practitioner's first computer system begins to age, the planned attachment of the next generation machine via a network allows familiarization and a smooth transition. Since the lifespan of the network will be required to exceed that of any individual computer system attached to it, the question of which network to plan for deserves considerable attention.

Individual general practitioners will vary in their judgement of what strategy is most appropriate for their own practice, but it is essential that considerable thought is devoted to the different updating strategies before the first machine is acquired. Any practice which has gone through the exercise of putting its patient records into a computer² and ensuring their correctness will agree that the time and effort involved precludes any possibility of typing the data in again as a viable strategy for continuity in computer-based information systems. Once input, the data must be transferable to succeeding generations of computer system as an integral part of the system design. Adopting a network strategy will not only help to insure the general prac-

itioner against hardware and software ageing, but will also provide the interfaces for future exchange of information both within and outside the practice.

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References

1. Department of Health and Social Security and Joint Computer Policy Group. *Micros in practice. Report of an appraisal of GP microcomputer systems.* London: HMSO, 1985.
2. Department of Health and Social Security. *Evaluation of the 'Micros for GPs' scheme: final report.* London: HMSO, 1985: 26-33.
3. Gawthorn E. Medical records. In: Fabb W, Fry J (eds). *Principles of practice management in primary care.* Lancaster: MTP Press, 1984: 138-147.
4. Royal Australian College of General Practitioners. *Health record system.* Melbourne: RACGP, 1974.
5. Korner E. *Reports of steering group on health services information.* London: HMSO, 1982, 1983, 1984.
6. Fisher RH. A national strategy for primary care computing. In: Malcolm A, Poyser J (eds). *Computers and the general practitioner.* Oxford: Pergamon Press, for RCGP, 1982: 39.

Regional patterns of AIDS and HIV infection

THE acquired immune deficiency syndrome (AIDS) has been described as potentially the greatest health crisis of the century. Already over 24 000 cases have been diagnosed in the USA and as many as 1.5 million Americans may be infected with human immunodeficiency virus (HIV). The situation in Africa is reported to be worse, the disease being endemic throughout the population in some sub-Saharan countries. By contrast, and probably owing to the later arrival of the virus in this country, only 490 cases of AIDS had been reported in Britain by the end of August 1986, although this number is expected to double at least every 12 months as many thousands more are already infected.¹

HIV (formerly known as HTLV-III/LAV) is now accepted as the causal agent in the development of AIDS and is known to be spread sexually, regardless of gender, and through the mixing of contaminated blood. Action has been taken to prevent blood or blood products used in medical treatment from providing a route for HIV transmission, so three groups remain significantly at risk of infection. First, and as yet the most widely reported are homo/bisexual men at risk sexually, secondly injecting drug users at risk through the mixing of blood during the sharing of needles and syringes and, finally, the non-drug-using heterosexual population who are sexually-active.

Recently, however, variations in the prevalence of AIDS and HIV infection within and between these risk groups at different locations have been observed. Among the first 1000 cases of AIDS reported in the USA, 70.3% of all cases in injecting drug users and 45.8% in homo/bisexual men were diagnosed in New York, as compared with California which accounted for 27.9% of cases in homo/bisexual men, but only 3.9% of the injecting drug users.² Similar variations exist in the United Kingdom. Of the cases of AIDS reported so far, 438 (89%) are among homo/bisexual men and only four (0.8%) among injecting drug users.¹ In contrast, figures for known HIV antibody seropositivity for risk groups in Scotland alone show a radically different pattern. Of 795 individuals known to be seropositive in Scotland by July 1986, 503 (63.3%) were injecting drug users and only 122 (15.3%) homo/bisexual men.³ The majority of those presenting with AIDS or AIDS-related illnesses in Scotland

are therefore likely to be from a different risk group to those elsewhere in Britain. This is of some importance, as it is this drug user group who, being predominantly heterosexual, may provide the 'bridge' for HIV transmission to the general population.

In Scotland the distribution of infection within risk groups throughout the country is not even, 482 (60.6%) of known seropositive patients coming from Edinburgh, compared with only 176 (22.1%) from Glasgow.³ Similarly, whereas 51% of injecting drug users in Edinburgh are reported to be infected with HIV, the corresponding prevalence in Glasgow is less than 5%.^{4,5} One study has attributed this variation in nearby cities to differing patterns of needle and syringe sharing in the two drug-using communities.⁶

What implications are there for general practice in this information? It is clear that AIDS will soon become a major problem for the medical profession in much of Britain, and despite being dubbed a 'gay plague' by the popular press, will affect other groups in different areas. Sadly, there is a lack of detailed local information about HIV infection, with few regions having sufficient knowledge to enable health authorities to predict the quantity and pattern of forthcoming problems.

Inevitably, general practitioners will become responsible for much of the health care of those with AIDS or HIV infection. It may take from four to 10 or more years for individuals to develop AIDS following HIV infection (some never becoming unwell) and it must be assumed that they will all remain infectious throughout this time. In addition, it is estimated that, once infected, those developing AIDS will spend only about 5% of this time as inpatients, the rest of their time being spent within the community. Britain has an excellent opportunity through its primary health care system to develop appropriate community care for those with AIDS and HIV infection. The success of this will depend largely on the willingness of general practitioners to acquire new knowledge and to become involved with these patients. Already general practitioners are recognized to be the main interface between drug users and medical services and such contact could be fruitfully developed and exploited.⁷

Finally, the World Health Organization recently stated that the future spread of AIDS is dependent on the efficacy of preventive practical and educational interventions. Certainly, while the prospect of a vaccine remains remote (and its effectiveness remains in doubt — how many injecting drug users have been vaccinated against hepatitis B?), preventing the spread of HIV seems the only feasible means of controlling AIDS.

National health education campaigns have not been shown to work well and it may be that general practitioners through cooperation with local voluntary and statutory groups, and having ready and established access to the local at-risk groups are the best placed to provide practical and educational help to limit the spread of HIV, and to care for those already infected.

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Children and divorce

It is estimated that on current trends one in three marriages will end in divorce and one in five children will experience the divorce of their parents before reaching the age of 16 years.¹ In a clinic study of 60 families carried out in America over five years, the immediate effects of divorce on children were found to vary according to the age of the child.² Pre-school children were confused and frightened and blamed themselves for the breach; they expressed fears of being sent away from home. Schoolchildren expressed feelings of sadness and rejection, but normally did not blame themselves. Children over the age of nine years more often expressed anger and outrage at their parent's behaviour; they felt lonely and rejected. These feelings were openly expressed by some adolescents who also felt shame and embarrassment. Many of the adolescents found that they could disengage themselves from parental conflicts within one year. Although this work was carried out in America, there is no evidence that the experience of children in England differs markedly from this pattern. It has been suggested that some of the behaviour problems of children from broken homes may be accounted for by the material disadvantage experienced by these children.³

Important insights into the long-term effect of divorce on children were obtained from a longitudinal survey in Britain of a cohort of children born in 1946 who were followed through.⁴ The divorce of the parents was associated with more problems in the children when separation occurred before the children were five years old than when it occurred later in the child's development. School performance was also below normal. Boys showed more signs of distress than girls; for example a higher incidence of delinquency, especially crimes of violence and sex crimes and they had a greater prevalence of enuresis up to their teens. By young adulthood these children with an early experience of divorce had a higher incidence of illegitimate births, divorce, stomach ulcers, colitis and emotional problems. In their thirties this group had a higher incidence of depression, particularly among the women, and of high blood pressure among men.

What then can be done to help prevent physical and psychological ill-health in the children of divorced parents? Clearly, family discord is less upsetting for the children when the parents stay together than when separation occurs and there is evidence to confirm this from a survey in Edinburgh among

References

1. Anonymous. *Communicable Diseases Scotland, Weekly Report* 1986; 20 (36): 10-11.
2. Jaffe HW, Bregman DJ, Selik RM. Acquired immune deficiency syndrome in the United States: the first 1000 cases. *J Infect Dis* 1983; 148: 339-345.
3. Anonymous. *Communicable Diseases Scotland, Weekly Report* 1986; 20 (35): 15-16.
4. Robertson JR, Bucknall ABV, Welsby PD, *et al.* Epidemic of AIDS-related virus (HTLV-III/LAV) infection among intravenous drug abusers. *Br Med J* 1986; 292: 527-529.
5. Follett EAC, McIntyre A, O'Donnell B, *et al.* HTLV-III antibody in drug abusers in the west of Scotland: the Edinburgh connection. *Lancet* 1986; 1: 446-447.
6. Robertson JR, Bucknall ABV, Wiggins P. Regional variations in HIV antibody seropositivity in British intravenous drug users. *Lancet* 1986; 1: 1435-1436.
7. Bucknall ABV, Robertson JR, Foster K. Medical facilities used by heroin users. *Br Med J* 1986 (in press).

71 families.⁵ Other work has shown that if separation does occur cooperation in the care of the children after divorce is associated with fewer long-term problems for the children.⁶ Mary Lund studied 30 families in Cambridge where the parents had been separated for at least two years.⁷ The families in the survey spanned all socioeconomic groups and educational levels and objective measurements of the children's adjustment were used. She described three patterns of behaviour among families where the parents divorce. First, harmonious co-parent families where arrangements about the children were negotiated amicably; children in these families showed little behavioural disturbance. Secondly, co-parent families characterized by conflict; children in these circumstances were less well-adjusted at school. Thirdly, families where the father was absent; children in these families showed the highest number of emotional problems and the lowest self-esteem.

In times of stress and crisis the general practitioner is often the first person approached. One report found that women experiencing a divorce went to the doctor more than men, but rarely gave the separation as the reason for the consultation; the complaints were usually of 'nerves' or 'tiredness'.⁸ Many of these consultations ended in the prescription of a tranquillizer and the marital problem was not uncovered unless the doctor specifically enquired about it. Children too may present to doctors more frequently with somatic symptoms at the time of their parent's divorce and the underlying family problem may not be identified. Even when the marital problem has been uncovered Richards and Dyson found that the general practitioners rarely asked about the children.⁸ It may therefore be useful for the general practitioner to enquire about family disharmony when adults or children attend with vague symptoms.

General practitioners need to understand that the health problems of children involved with a divorce are long-term and that the likelihood of these problems is lower when the parents cooperate in the care of the children. In the interests of the physical and psychological health of children of divorced parents general practitioners could do more to help parents come to an amicable arrangement, perhaps by referring the parents to the family conciliation services.⁹

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