

acute or the chronic stages of Kawasaki syndrome. After early Japanese studies had suggested benefit from gammaglobulin¹⁸ a multicentre study in the United States compared treatment of a group of children with intravenous gammaglobulin plus aspirin with treatment with aspirin alone.¹⁹ Two weeks after enrolment 23% of the children treated with aspirin alone had evidence of coronary artery abnormalities on ultrasonography compared with 8% in the group receiving gammaglobulin. This and other studies confirmed that gammaglobulin has a definite protective effect on the coronary arteries. The consensus view is that a daily infusion of gammaglobulin should be given in a dose of 400 mg/kg a day.²⁰ The presumption is that its beneficial effect is achieved by an immunological blockade on endothelial cell surfaces against antibodies induced by cytokine. The optimum dosage and duration of treatment with aspirin have not been definitively evaluated, but the usual practice is to use an anti-inflammatory regimen until the fever has settled and then to convert to an antithrombotic regimen. Aspirin is stopped when the sedimentation rate has returned to normal, but it should be continued indefinitely in patients with persistent coronary artery aneurysms. The prognosis for resolution of aneurysms is good unless the aneurysm is "giant"—that is the size is more than four times that of the vessel wall.²¹ Patients with giant aneurysms are at greatest risk of myocardial infarction leading to late death.

Although Kawasaki syndrome is an important public health problem in Japan, it is uncommon in those Western countries where regular or ad hoc surveys have been undertaken. In the British Isles surveillance of the syndrome has been conducted jointly by the British Paediatric Association and the Public Health Laboratory Service Communicable Disease Surveillance Centre since 1983. The transfer to reporting through the British Paediatric Surveillance Unit in mid-1986²² caused a threefold increase in case ascertainment,²³ but the annual total for 1987 was still only 82 cases. In 1988 this increased to 112 (1.5 per 100 000 children under 5 years), and the provisional total for 1989 was 106 cases. The incidence in Britain in 1988 was very similar to the annual average in the United States in 1976-85 of 1.1 per 100 000 children under 5 years,²⁴ but the figure in Japan in 1984 (a non-epidemic year) was 85 per 100 000.⁴ In other respects, the clinical and epidemiological features of Kawasaki syndrome in Britain are similar to those in Japan, including an excess incidence in oriental compared with white children. Mortality

in Britain, however, at 2% is similar to that in Japan in the 1960s—whereas it was 0.1% in that country in 1986.⁴

Improved outcome is related to early diagnosis, prompt referral for expert cardiac assessment, and immediate treatment. The message for paediatricians in Britain is clear.

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Adolescent sexuality

Better, more accessible sex education is needed

When Johann Sebastian Bach was alive the voices of young boys dropped at a mean age of 17.5; they now drop at 13.5.¹ Secondary characteristics in boys, including voice drop, occur late in puberty so fertility develops even earlier—at a mean age of 12.5.² Likewise, girls now experience their first menses at 12.5 with ovulation occurring two years later. They thus have a potential for fertility two years earlier than girls in 1900,³ but in neither girls nor boys is the capacity for reasoning, anticipation, and planning fully developed until the age of about 14 or 15.⁴ Thus sexual maturity is occurring earlier than in past generations while the capacity for predicting the consequences of sexual activity is not.

The results of adolescent sexual activity are seen in the figures for births and abortions in teenage girls and increased

rates of positive cervical smear tests, pelvic inflammatory disease, and other sexually transmitted diseases. In 1969 there were 6.8 births per 1000 among 16 year olds in Britain, but in 1986 the rate had risen to 8.7, a total of 9194 live births.⁵ In 1988 some 3568 legal abortions were performed among under 16 year olds and 37928 among 16-19 year olds resident in England and Wales.⁶ In 1985, 3908 positive cervical smear tests were recorded among women aged under 25, compared with 1149 in 1975.^{7,8}

Undoubtedly, the environment in which the young grow up has also had an influence. The media portray the romantic, exciting aspects of sex, while cohabitation and the high rate of divorce among adults are doubtful models of sexual behaviour for the young. A Gallup poll published in September 1989

claimed that one in seven women aged under 25 had lost her virginity before leaving school, while one in eight men had had sexual experiences before the age of 16.⁹ In contrast, three quarters of women now aged over 44 had not yet had their first sexual experience at 20.⁹

Societies have adopted three approaches to the unfortunate consequences of adolescent sexuality. Hindu and Moslem societies have advocated earlier marriage. In India 70% of 15-19 year olds are married, in Pakistan 73%, and in Egypt 31%, but in Europe only 7% are married.¹⁰ In Western societies early teenage marriages tend to end in divorce.

The second approach is to encourage abstinence. Japan and China take this approach, as do some African nations that punish adolescent, unmarried offenders (though usually only the girl).¹¹ In Britain, though it is illegal to have intercourse with a girl aged under 16, prosecution is rare, and few voices outside organised religion speak out strongly for abstinence in the early adolescent years.

Western societies have generally chosen the third approach: sex education, contraception, and abortion. In 1985 an international comparison showed pregnancy rates per 10 000 among 15-19 year olds of 96 in the United States, 45 in England and Wales, 44 in Canada, 43 in France, 35 in Sweden, and 14 in The Netherlands, and concluded that a high teenage pregnancy rate was not an inevitable accompaniment of liberal attitudes towards sex (Report for the Allen Guttmaker Institute No 190760). Both this study and a recent British report¹² point to the fact that it is the type of sex education that matters. If young people can discuss their sexual drives both at home and at school they are more likely to accept their own sexuality and take early advice on family planning. The British study interviewed pregnant teenagers and concluded that more sex education was needed to reduce the rate of teenage pregnancies and that it should be targeted at 12 and 13 year olds and those in social classes IV and V.¹²

Yet sexual activity should not be looked at in isolation from other risk taking activities by teenagers. In one study sexually active teenagers rated higher in an index of substance abuse than virgins, and those who rated highly were also more likely to be behind in their schooling.¹³ Peer pressure not countered by the attitudes (and behaviour) of parents and teachers results in teenagers indulging further in potentially harmful behaviour such as smoking, alcohol and drug abuse, and playing truant.

One in three children will see their parents divorce before they are 16, and others will experience physical, sexual, or emotional abuse. Children who experience little affection at home may search for it through sexual contact or conceiving a baby. From this perspective solutions lie in seeking methods of supporting families so that they can discourage adolescents from indulging in damaging risk taking activities. By employing counsellors in their practices general practitioners could do much to help patients with marital difficulties. We could also do more to build relationships with teenage patients, possibly by including them in paediatric surveillance, and provide accessible advice on a whole range of subjects that bother the young, including sex education and contraception. Government plans for the NHS do little for the adolescent; indeed they are likely to promote the closure of family planning clinics. As a profession we should campaign to keep these clinics open and for better and earlier sex education and emphasise the emotional aspect of relationships and the desirability of sometimes saying "no." Unless we do, the consequences of adolescent sexuality will continue to blight the lives of increasing numbers of young teenagers and their offspring.

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General practice fundholders

NHS planning priorities will be distorted

Most doctors remain unconvinced that the purchaser provider concept—the philosophical core of the government's reform of the NHS—will improve cost effectiveness or provide better standards. They see it as complicating the provision of health care with no proof of any benefit. Most criticism has focused on the contracts to be introduced in the hospital sector and on the development of self governing hospitals. The introduction of budgets for general practitioners has attracted less public attention, yet this innovation seems likely to harm the NHS by distorting priorities and undermining planning. The main economic decisions in the health service concern the allocation of resources, and nothing in the NHS and Community Care Bill suggests that the government is prepared to rectify their overall scarcity. Painful decisions on resource allocation will have to be taken by clinicians and managers;

these will be made more difficult by the unpredictable impact of general practice fundholders on the service.

The priorities in the NHS continue broadly to reflect those set out in consultative documents in the late 1970s,^{1,2} which identified priority groups at whom resources would be targeted—including the mentally ill and handicapped, the elderly, and the physically disabled. Expansion in services for these groups was to be achieved at the expense of general and acute hospital services, whose rate of growth would be reduced to nearly one third of its historic level. The detailed guidance covered only three years and was later watered down, but the broad framework was reiterated in the 1981 policy document *Care in Action*.³ The impact of these priorities on the general and acute hospital services has been to reduce their average rate of growth to below 0.4% a year