

consent to treatment rules that no one can give valid consent on a patient's behalf.⁵

An identified carrier's quality of life may be compromised by action taken to protect his fellow residents and would be further diminished should it prove impossible to maintain confidentiality in a long stay hospital over a long period. But if routine screening appears unethical the corollary is that the alternative seems unacceptable. It cannot be right to statutorily confine a group of men of limited intellectual capacity in close proximity over a prolonged period, promoting activities which have a 70% chance of transmitting an infection with a 30% mortality, without attempting to determine who carries the contagium.^{1 4 6}

We have asked for guidance from distinguished institutions, including the BMA, without receiving a wholly satisfactory answer. So long as the results show that the patient is seronegative no conflict of principle arises. Should one prove seropositive then critical decisions will need to be made balancing the interest of the patient with those of the other patients.

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The possibility of AIDS

SIR,—Compared with the great epidemics, such as typhus, smallpox, tuberculosis, bubonic plague, and syphilis, the acquired immune deficiency syndrome (AIDS), like serum hepatitis, has a long way to go. The total number of cases reported in the United Kingdom by 1987 was 610 (17 January, p 184), but, like the population predictions of the 1960s, the projection is exponential. The hypothetical epidemic dwarfs many of our other future horrors, but the following case emphasises the need for a sense of proportion.

A 34 year old married man had a five week history of odynophagia described as a fish bone in his throat. He was referred to a general physician when a neck lump appeared in his right mid-deep cervical region. After numerous investigations, including Venereal Disease Research Laboratory and hepatitis B serology (both negative), a general surgeon performed a biopsy on the patient's neck node. A long pathology report concluded "atypical Hodgkin's lymphoma." After the patient was referred to a radiotherapist ulceration of the right tonsil was noticed (as was a "query AIDS" diagnosis thrown on the end of one of the initial differential diagnoses). The genitourinary referral was made after the ear, nose, and throat referral, so it was during the case preceding the panendoscopy and right tonsillectomy that theatres were informed that the man may have been carrying human immunodeficiency virus (HIV) antibodies. Even though the consultant genitourinary physician thought it extremely unlikely that the man was a carrier, serology was performed, just in case. Within minutes full theatre precautions were in train. For many, particularly the operating department orderlies, the fact that the diagnosis had appeared in the notes was enough. A simple 20 minute procedure took two and a half hours and consumed many disposable gowns, gloves, towels, and plastic bags.

Clinically, the lesion resembled a T4 N1 squamous cell carcinoma of the tonsil extending into the postnasal space. Histology of the tonsil remained unclear but confirmed the previous report. No HIV antibodies were found.

The morals of this tale are ancient and modern. Firstly, neck lumps should be referred to a head and neck specialist. Secondly, the present AIDS information campaign behoves all doctors, including the desperate diagnostician, to be circumspect before raising the possibility of the disease or carrier state.

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HIV transmitted by sexual intercourse but not by kissing

SIR,—An essential element of the public education campaign about the dangers of the acquired immune deficiency syndrome (AIDS) is based on the view that human immunodeficiency virus (HIV) is transmitted primarily by sexual intercourse. Writing to the *Guardian*, Dr John Seale asserts that there are dangers in kissing and asks for evidence that the risk from semen is greater.¹ My letter concerns the scientific arguments and is written on behalf of the government's expert advisory group on AIDS, of which I am a member.

When a sexually active couple have intimate contact it can be difficult to be sure what activity led to the transfer of infection. There is no doubt, however, that semen can be infectious because transmission of infection has occurred after artificial insemination.² Gradations of risk have been described with different sex acts, receptive anal intercourse carrying the highest risk.^{3 4} The wearing of a condom seems to lessen the risk of infection.^{5 6} These lines of evidence support a direct role for semen in the transmission of HIV. It is also worth noting that most cases of HIV infection in the USA and Europe have entailed transfer of semen from an infected person.

Dr Seale uses a single case as evidence of salivary transmission.⁷ A woman of 61 was said to have been infected by her husband, who had been impotent for three years. It should be noted that the authors of that report did not claim that the patient in question necessarily contracted HIV through kissing; the purpose of their report was to describe cases in which the virus seemed to have been isolated from blood in the absence of antibodies. The woman in question lacked HIV antibodies or other features of HIV infection. Inadequate detail was given of the type and frequency of contacts between the woman and her impotent husband or of any other sexual contacts. Though it was assumed that the husband became infected through a transfusion during the surgical operation that rendered him impotent, no information is given in the paper about the infectivity of the blood donors concerned. The man might have been infected before becoming impotent. A single case report with incomplete information is an insufficient basis for the argument that kissing has resulted in the transmission of HIV.

In another brief case report one boy is assumed to have been infected by his brother, who had himself become infected through a blood transfusion.⁸ The method of transmission between the two boys was unknown, although it was speculated that saliva in a bite on the forearm might have been responsible. Inoculation of infected material is recognised as a method of transmission of HIV; this case is thus not directly relevant to the dangers or safety of kissing.

The accumulated evidence suggests that social

kissing is not associated with risk. We are reassured because, firstly, non-sexual family contacts of infected people have not caught HIV⁹; secondly, the age/sex breakdown of patients with AIDS and known carriers, with a lack of children aged 5-15 years, argues against transmission by non-intimate kissing; and, thirdly, there are no well documented cases where infection has been attributed to kissing. There is, moreover, no evidence of salivary transmission to health care workers such as dentists,¹⁰ and it has been suggested that there is an inhibitory factor for HIV present in saliva.¹¹ The sharing of drinking vessels such as cups and glasses seems to be completely safe.

Some forms of open mouthed kissing can be associated with considerable transfer of saliva. In epidemiological studies intimate kissing is confounded with sexual intercourse, which makes it difficult to be sure of the precise role of each in the transmission of infection. Apart from the arguments given above for the belief that semen and not saliva has been responsible for cases described to date, there is also indirect evidence from the relative safety of oral sex. Though semen can transmit infection when deposited in the rectum or vagina, the evidence suggests that it is probably not associated with risk by the oral route.^{3 4}

The precise mechanism of transmission of HIV is unclear, and the relative roles of cell free and cell associated virus are uncertain. Contrary to early reports,¹² HIV cannot be grown readily from saliva,¹³ although it can be detected fairly easily in semen from infected people.^{14 15} The difficulty in determining the relevance of such in vitro studies is evident in the reference quoted by Dr Seale on virus in saliva.¹² The method of culture employed in that study could not have differentiated between cell free and cell associated virus. Infectivity shown in cells in vitro may have little relevance to human transmission, where the site of challenge may be as important as the virus load of the fluid in question, as argued above in relation to oral sex.

Public health policy is formulated with the best consensus advice drawn from acknowledged experts. Their view is that there is no sound evidence that HIV has been transmitted by kissing. When questioned in detail, patients infected with HIV are almost invariably identified with one of the known risk groups linked to the well recognised methods of transmission.¹⁶ The real risk to most people is from sexual intercourse, where the clear advice is to restrict the number of sexual partners, preferably to one faithful partner, and if you are unsure of your partner to use a condom.

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