

# ABC of AIDS

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## STRATEGIES FOR PREVENTION

### General health education

- General health education
- Information, counselling, and HIV antibody testing
- Screening of blood and organ donations
- Heat treatment of blood products
- Protection of health care staff
- Surveillance

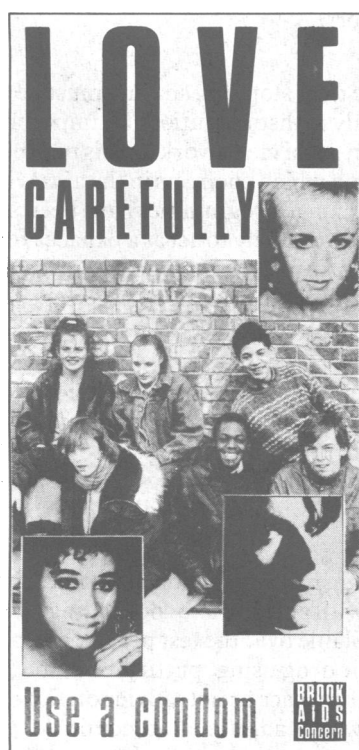
Health information aimed at changing behaviour remains the major preventive strategy for reducing the spread of human immunodeficiency virus (HIV) in the United Kingdom. Although research continues, there is at present no immediate prospect of a cure or vaccine.

The pioneers of health education campaigns in the United States and Britain have been voluntary groups, initially directing their efforts towards homosexual men. Following these educational efforts evidence is accumulating that substantial changes in sexual behaviour, a reduction in the incidence of new HIV infections, and a reduction in the incidence of gonorrhoea have occurred in homosexual men.

After the government's health information campaign in Britain most people are now aware of AIDS. Many, however, are seeking more detailed information, particularly from health care staff. Some will be inappropriately anxious, while others who are genuinely at high risk will need to obtain accurate information and personal advice. This presents an ideal opportunity for the clinician to practise preventive medicine and respond both sympathetically and with sound practical information.

Unless health care staff can respond effectively there is a danger that the current public information campaign will result only in excessive fear, leading people either to ignore the message or to create a future generation frightened and ashamed of their sexuality.

### Preventing sexual transmission



The epidemiology of HIV infection in the UK indicates that people who take part or have taken part in particular activities are currently at much higher risk than others. These are homosexual and bisexual men, injecting drug users, haemophiliacs, the sexual partners of these individuals, and those who have had sexual contacts in parts of Africa. Nevertheless, everyone is potentially at risk of infection. Even though the prevalence among those without a recognised risk factor is very low, it requires sexual contact with only one infected person for transmission to occur. Those who are HIV seronegative and in a mutually monogamous relationship have nothing to fear. The sensible message to everyone else must be: "To reduce your risk reduce your number of sexual partners, know about your partner's previous sexual and drug use history, and use a condom." Condoms may not provide total protection, but they will help considerably if used properly and always. They therefore need to be available when needed, and it may be worth while encouraging local chemists, pubs and clubs, and the local health authority to improve availability, as well as aiming to improve image and acceptability. Men and women can obtain condoms free of charge from family planning clinics. General practitioners cannot prescribe condoms but can prescribe spermicides. Condoms should be used only with *water* based lubricants (eg KY jelly). Oil based lubricants can damage the rubber. Virucidal spermicides may offer additional protection but have not been fully evaluated *in vivo*.

When giving advice to individuals it is important to assess their risk factors for infection. If they are engaged in high risk activities safer sex needs to be emphasised strongly whether they are infected or not. Safer sex was discussed in the article on counselling. If uninfected, and still participating in high risk activities, the individual runs the risk of infection and, if infected, runs the risk of infecting others.

- Safer sexual practices
- Fewer partners, less risk
- Use condoms

For those with a risk factor for infection HIV antibody testing can be offered with appropriate counselling. This should be available in the local department of genitourinary medicine/sexually transmitted disease clinic. Clinicians should be aware of the importance of assuring and maintaining confidentiality in testing patients for HIV. Whether the individual opts to take the test or not advice must be given on risk reduction.

The HIV seropositive individual may wish to consider bringing his or her regular sexual partners for counselling and the offer of testing. This may be a very sensitive topic of clinical management but is now encouraged in the USA, particularly in groups where the prevalence is still very low. Both men and women may want to know their state if for no other reason than to stop infecting others if antibody positive. Women may also be concerned to know their serological state because of the implications of a positive test for future pregnancies.

## Preventing transmission in those who inject drugs

- If possible, stop injecting drugs
- If you must inject drugs, get your own works and don't share them
- Practise safer sex

Preventing transmission of HIV among injecting drug users must rely on stopping the sharing both of needles and of other paraphernalia of drug use (syringes, mixing bowls, spoons, etc) used in injecting—"works"—as well as advising on safer sexual practices.

Users need to be advised of the risks of sharing works and that this applies to any injecting, whether intravenous, intramuscular, or subcutaneous ("skin popping"). Drug users also need to be advised of the risks of transmitting or acquiring the virus sexually, as well as of the potential risks of both male and female prostitution, as this may be used to finance a drug habit.

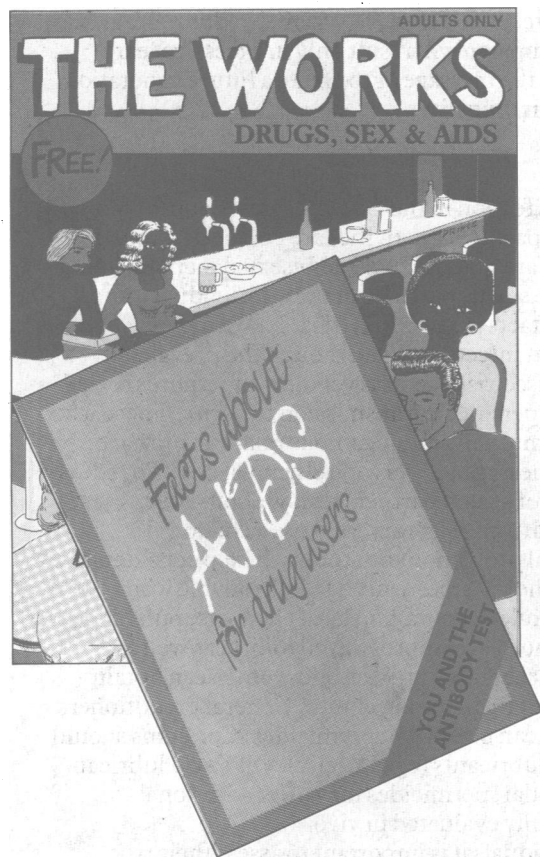
Ideally, the best primary prevention for drug users is to stop using drugs. Help can be sought from the local drug dependency services (if such exist) as well as from voluntary agencies—for example, Narcotics Anonymous, ACCEPT, or dial the operator and ask for Freephone Drug Problems for a recorded message of how to locate local services.

If stopping is at present unrealistic the next best option is to stop injecting and switch to sniffing, smoking, or swallowing drugs. Again drug advice agencies may be able to provide support.

If stopping injecting is not possible then stopping sharing must be the message for everyone. If this is the only realistic solution it is important that every injecting user has his or her own set of clean works. This may be easier said than done, and it is worth knowing which chemists in the area will sell needles and syringes. Pilot needle exchange programmes have been set up throughout the UK, but these alone are unlikely to act as a panacea for preventing the spread of HIV among drug users. Drug users must also have easy access to health information outside the formal health service structure.

One alternative strategy that has been followed where provision of needles has proved politically unacceptable has been to distribute household bleach together with instructions on cleaning equipment. As with needle exchange, the main advantage of this strategy may be to raise awareness of the danger of transmission by infected needles.

As with those at risk from sexual transmission, anyone who is a drug user can be offered HIV antibody testing with appropriate counselling. It is essential that adequate support is available over the test period, as a positive result may precipitate a bout of chaotic drug using, putting both the client and others at risk. Whether testing takes place or not, advice on safer sex and condom use needs to be given as well as additional advice on contraception for women (see below).





## Preventing vertical transmission

### Contraception advice for seropositive women

Offer counselling and ? HIV testing to pregnant women at high risk of infection

Offer? termination of pregnancy to seropositive women

Seropositive mothers should avoid breast feeding if possible.

The risk of an HIV positive pregnant woman transmitting HIV to her unborn child is thought to be about 30-50%, although further epidemiological studies are in progress. Seropositive women or women who are considering parenthood with a seropositive man need to be counselled about the risks of pregnancy both to the mother and to her unborn child. Primary prevention of pregnancy entails providing adequate contraception *as well as* the use of a condom to prevent sexual transmission of HIV between partners. Unwanted pregnancy has resulted from couples switching from more reliable methods of contraception to condoms alone.

Women with a risk factor for infection should be offered counselling and HIV antibody testing if they want it in the early stages of pregnancy. If they take the test women should understand that if they are seropositive therapeutic termination can be offered on grounds of risk to the fetus. Of course, the final informed decision must be taken by the mother whether to continue the pregnancy. It has also been suggested, largely on theoretical grounds, that pregnancy may increase the risk of progression to AIDS in the mother, but this has not been clearly substantiated by studies. Seropositive women should also be advised against breast feeding their infants, since one case of possible transmission of HIV by breast milk has been reported. However, this advice may not be feasible in a developing country, where alternative forms of feeding may not be a practical option.

## Preventing transmission by blood, blood products, and organ donation

### People asked not to donate blood or semen or carry a donor card

- (1) Men who have had sex with another man at any time since 1977
- (2) Drug users who have injected drugs at any time since 1977 whether intravenously or under the skin
- (3) Haemophiliacs who have received unheated blood products since 1977
- (4) People who have lived in or visited Africa south of the Sahara at any time since 1977 and have had sex with men or women living there
- (5) Sexual partners of any of the above groups.

All blood transfusion centres give written instructions to potential donors not to give blood if they have a risk factor for infection with HIV. Those asked not to donate are shown in the table. They should also be advised not to donate semen and not to carry a donor card.

All blood donations in Britain have been screened for HIV antibody since the end of 1985. All suspected or confirmed positive blood is discarded. At present about one per 50 000 donations is confirmed positive. There remains an extremely small risk of an infected but false negative sample being transfused. This risk is thought to be less than one per million donations.

All factor VIII for haemophiliacs is now heat treated to destroy any active virus.

Donors of all organs and semen must be screened for HIV antibody before organs are used.

For women seeking artificial insemination it is essential that guidelines on donor screening are followed. (Details from DHSS CMO (86) 12.)

Control of infection in the home and workplace was discussed in an earlier article.

## Foreign travel



This sterile equipment pack is available from Medical Advisory Services for Travellers Abroad, London School of Hygiene and Tropical Medicine, Keppel Street, London WC1E 7HT (it costs £9.80 including postage).

When travelling abroad, as at home, everyone should be reminded of the risks of casual sexual encounters, particularly in areas where HIV is highly prevalent. In parts of the world, particularly in central Africa, transmission of HIV is primarily by heterosexual activity. High rates of infection have been shown among the sexually active population of both sexes in some major cities, and infection rates are high in prostitutes. Casual heterosexual encounters are therefore very risky and are best avoided. The use of condoms may provide some protection from infection. In the United States, the highest rates of infection, as in the UK, are in homosexuals and drug users.

Travellers should be reminded that in many parts of the world screening of blood for HIV before blood transfusion is not carried out, while there is frequent reuse of needles and syringes for medical purposes.

The Medical Advisory Service for Travellers Abroad (MASTA) provides information for travellers and sells a sterile medical equipment pack containing disposable needles, intravenous cannulae, etc. Difficulties may arise if emergency blood transfusion is required. The local British embassy may be able to advise on availability of plasma expanders or on local donor panels.

## Health professionals as health educators and surveillance and monitoring

### Some sources of health education material and AIDS information

- Local health education department
- Local sexually transmitted disease clinic
- Special AIDS line 0800 555777
- Healthline telephone service: 01 981 2717, 01 980 7222, 0345 581151
- Health Education Authority, 78 New Oxford Street, London WC1A 1AH 01 631 0930
- The Terrence Higgins Trust, BM/AIDS, London WC1N 3XX  
Helpline 01 833 2971 (7 pm-10 pm every day)
- The Haemophilia Society, PO Box 9, 16 Trinity Street, London SE1 1DE 01 407 1010
- SCODA (Standing Conference on Drug Abuse), 1-4 Hatton Place, London EC1N 8ND 01 430 2341
- Welsh AIDS Campaign 0222 464121
- Scottish AIDS Monitor 031 558 1167
- Northern Ireland AIDS Line, Belfast 0232 226117

Many health professionals may be asked to speak to other health and social services workers, to local schools or colleges, and need to be armed with relevant facts. The box gives a short list of useful contacts from which health education materials, including leaflets and videos, can be obtained. Voluntary and pressure groups often offer a fund of information on local resources, as well as providing support for individuals. Health education messages need to be imaginative, comprehensible, and relevant to the group addressed. Advice from local health education officers and local groups is often essential in helping to get the appropriate message across. Prevention cannot be limited to health service settings and will need to include community work in pubs, clubs, and schools. Other strategies in New York and London include employment of "outreach workers" working closely with voluntary groups to contact particularly young drug users outside the health care setting.

The effectiveness of preventive strategies and estimates of the magnitude of the epidemic can be assessed only by continued monitoring of HIV infection rates and occurrence of AIDS cases.

All doctors are invited to participate in confidential reporting of cases of AIDS to the Communicable Disease Surveillance Centre (61 Colindale Avenue, London NW9 5EQ; telephone 01 200 6868). Public health service and other laboratories also report numbers and risk group of seropositive tests to Colindale.

Evaluation of health education strategies also requires population studies of knowledge about AIDS, social studies of sexual and drug using behaviour, and seroprevalence studies in different risk groups.

A continued and coordinated national and international effort through education, surveillance, and research is required if we are to meet the public health challenge of AIDS.

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## Letter from . . . Amsterdam

### Changing attitudes about lifestyles

ROBIN HULL

Big railway stations are exciting places, full of purposeful bustle. Amsterdam central station is getting a little too exciting. Late at night there has always been the risk of mugging because the insatiable need of the city's population of drug addicts leads to much petty crime. Six times in two years the locks on my car have been forced in search of anything that can be used to pay for drugs. Threat to property has until recently rarely been associated with personal violence, but now the screwdriver is becoming a popular weapon. The kind one uses to fix electrical apparatus makes an unusual weapon. Held in the clenched fist, with the business end protruding from the ulnar border of the hand and delivered with a

firm blow to the chest a screwdriver leaves only a tiny entry wound; the victim is aware of little more than a playful thump on the chest until his tension pneumothorax builds up later. This injury is so small that it can easily be overlooked by victim and doctor. Now there is a new technique for persuading unwary late night travellers to give up money near the central station, where one may be held to ransom by nothing more than a hypodermic needle, used and dirty. In this city where needles slip so often in and out of veins and where the prevalence of human immunodeficiency virus escalates the mere sight of a needle is an effective wallet emptier.

#### A haven

This picture of Amsterdam is not fair, for crime is only one aspect of this beautiful but sordid city. This is a cosmopolis of intense

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