not on list

Mr R Oates

CMO'S SPEECH TO PHLS ON AIDS

I have a few comments.

Page 6 - we have information about the exact technique used. See my minute of 16 October, attached

Page 10 - first line second para - use of "notified" is questioned.

Page 20 - sixth line - suggest delete "disorder of coagulation" as this phrase embraces conditions which are not treated with Factor VIII and Factor IX..

Page 20 - last sentence. Advice about the avoidance of needle stick injuries in the interim guidelines is unlikely to be revised. The revision will relate the lack of evidence for airborne spread.

GRO-C

Dr Alison Smithies
MED SEB
Room 1025a Han House
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22 October 1985

cc

Mrs Firth
Dr Ower
Dr Sibellas
Mr Williams
Mr T Murray
Mrs Fosh
Mr D Price

Miss Mothersill

CMO'S SPEECH TO PHLS ON AIDS:
WEDNESDAY 24 OCTOBER 1985

Attached is the final draft of the CMO's speech on which he would be grateful for any comments which you or copy recipients may have by mid-day Tuesday, if possible please.

Pages 16 onwards may be of most interest to you.

GRO-C
ROBERT OATES
CMO'S OFFICE
A709 AFH
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21 October 1985

cc. Ms Bateman
Ms McKessack
Mr Kerin
Mrs Firth
Dr Ower
Dr Sibellas
Dr Smithies
Mr A Williams
Mr T Murray
Mr D Price

AIDS

A problem for the public health

by

E D Acheson

At first sight coming to Colindale to talke about HTLV3 infection and AIDS must seem like bringing coals to Newcastle. Not only are many of my audience today far more expert in this field than I am but, I fear, many of you may be heartily sick of the subject. I hope, nevertheless, that you will bear with me because some benefit may come in the discussion from the interaction between my approach as a public health administrator and yours as expert laboratory workers. After all the chaacteristics of an outbreak of communicable disease depends as much upon the biology of the micro organism as upon the social habits of human beings.

Many analogies have been drawn between the current pandemic of infection with HTLV3 virus and other previous outbreaks of infectious illness - the Black Death, poliomyelitis, leprosy and so on. As scientists it is easy for us to shrug at these comparisons because we know that there is no valid scientific basis for them. However for the public they are damaging because they lead to serious confusion about the ways in which HTLV3 infection is spread and they are therefore best avoided.

The Epidemic

The principal epidemiological features of the outbreak of HTLV3 infection are well-known and I have no intention of giving a comprehensive account of them today. The key feature from the point of control, however, is the very long period of infectivity in persons who are usually unaware that they are carrying the virus. Recent studies have shown mean latent periods between the date of infection and of development of the illness of 4.5 years for transfusion associated AIDS, and of more than 3 years for homosexual men. Studies of infected blood donors and of sero positive homosexual men have shown that the virus has persisted in the blood of most of them for up to 4 years. In animals retroviruses may persist and remain infective throughout the lifespan of the animals concerned. In the United States, CDC, Atlanta recommends that the presence of specific antibody should be regarded as presumptive evidence of infectivity and in Britain most scientists accept this view. In France, however, the official line is more cautious. This is clearly a key issue on which I shall be most interested to hear comments.

The first cases of AIDS itself, which of course is the most serious clinical manifestation of HTLV3 infection, were reported to CDSC in the UK at the end of 1982 and the number of cases has subsequently increased rapidly (SLIDE 1). We can expect about 170 cases during the current calendar year. Whatever success public education may have in changing sexual behaviour in the immediate future, it is an unfortunate but inevitable consequence of the long incubation period that the number of cases of AIDS is bound to increase steeply for at least three years. Relying upon Dr Marion McEvoy's elegant predictions, in 1988 there may be about 2,000 cases, most of them in London, but it must be recognised that because of the small numbers which have so far occurred there is a large element of statistical uncertainty about this estimate. Provided our efforts in reducing the rate of spread of the infection ~~commence immediately and are successful~~ begin to take effect immediately, we may hope to begin to see some favourable change in the gradient of the epidemic thereafter. But it is inevitable that cases of AIDS will continue to occur in substantial numbers for many years to come.

As far as the number of persons infected with HTLV3 in the UK is concerned no reliable figures are available. However estimates derived from a cohort of San Francisco homosexual men suggest that at the stage the UK epidemic has currently reached, between 50 and 100 persons may be infected for every case of AIDS that has occurred to date - in other words between about 10,000 and 20,000 persons. In the nature of the epidemic in Britain so far most of these people are likely to be homosexual men living in London. Other estimates, based on clinical attendance rates suggest a figure nearer the lower than the upper end of this range.

The prevalence of HTLV3 infection in homosexual men attending clinics in Britain has increased rapidly in the last three years and it is reasonable to assume that 50-100 new cases of infection may at present be arising weekly within this group. Studies from various parts of the world including San Francisco have shown that since the beginning of the epidemic gay men have often although not always adopted safer sexual habits. However (SLIDE 2) when the prevalence rates of infected individuals are as high as currently exist in San Francisco very substantial changes in behaviour will be necessary on the part of gay men to reduce the risk of becoming infected. To illustrate this very crudely, in a community where 10 per cent of the men are infected, there will be a chance of infection on average once in every ten separate sexual encounters. Where the proportion is 50 per cent there is a chance of infection once in every two encounters. This underlines the crucial importance of action to change sexual behaviour when the prevalence of the infection is low.

Now a more favourable points. In terms of the incidence of AIDS itself (and therefore of the numbers of infected people) the UK up to May 1985 ranked eighth among 18 reporting European countries. (SLIDE 3) Cumulative incidence rates more than three times the UK rate of 2.5 cases per million population have been reported from Belgium, Denmark and Switzerland, the the figure for France is twice as high as ours. At a comparable date the cumulative incidence in the USA was about 40 per million about sixteen times higher than in the UK. Within the United Kingdom prevalence rates of antibodies in homosexual men attending clinics although increasing are still lower in provincial cities than in London. In a recent round-up of results from 8 English provincial towns kindly carried out for me by Dr McEvoy, the highest rate was 16 per cent and 4 centres still had rates well below 10 per cent.

Means of Spread

As is well known HTLV3 has been recovered from semen, blood, saliva and tears. However, transmission of the infection has been associated definitely only with the first two of these. Transmission has occurred as a result of sexual intercourse; the use of infected needles, syringes and other equipment by drug addicts; following the use of Factors VIII and IX for the treatment of haemophilia; following transfusion of whole blood and in one case reported from abroad following renal transplantation. It has also occurred as a result of accidental inoculation of infected blood in three health care workers - one certain and two presumptive. The virus has also been transmitted in semen during artificial insemination - although the exact technique used in these cases is not known, and from infected mother to foetus during pregnancy or during delivery. One case of presumptive infection of an infant as a result of breast feeding has been reported.

In the United States, AIDS first appeared in communities of homosexual men in San Francisco, Los Angeles and New York and spread rapidly within them. Receptive anal intercourse and other sexual practices involving damage to the rectum were found to be particular risk factors. The infection soon appeared and spread quickly among drug addicts sharing needles, particularly in New York and New Jersey. It became prevalent in haemophiliacs treated with Factor VIII derived from pooled plasma and much less frequently occurred among persons who had received transfusions of whole blood. Incidence rates for the calendar year 1984 among the groups at risk within the United States are shown in SLIDE 4, and are expressed per 100,000 population.

I should like to draw attention to three features of particular interest. First, the highest incidence rates are found in ~~homosexual~~ single men* (the denominators used are the numbers of men who have not married) and drug abusers, and the rates in New York and New Jersey drug abusers and New York and San Francisco homosexuals are comparable at about 300 per 100,000. Second, and I shall come back to this, note the relatively low rate (6 per 100,000) among female partners of drug addicts, as compared with the drug addicts themselves and among homosexuals. Third I draw attention to the interesting contrast in rates between Haitian immigrants before and after 1977, strongly suggesting a recent introduction of the infection into Haiti.

* a first approximation only which requires explanation. It does not rest on the assumption that no homosexual man is married nor that all never-married men are homosexual!

In the United Kingdom as in the USA the first AIDS cases were reported among male homosexuals and these have contributed by far the largest proportion of all the cases (87.5 per cent), but in contrast to the USA the illness in drug addicts has so far been rare. Three cases only have so far been contributed by drug addicts (2 of these also homosexual) and there have also been small numbers of cases in haemophiliacs (8) and persons who have received blood transfusions (4) and in persons associated with Africa and the Caribbean.

Using a similar denominator to that employed by CDC Atlanta - men over 15 years of age who have never married - in the United Kingdom the rate among ~~homosexual~~ single men in 1984 was approximately one per 100,000 for the UK (as compared with 14 in the USA) while in Greater London the incidence was about six per 100,000 as compared with ~~about 33~~ between 260 and 340 per 100,000 in New York and San Francisco. This difference is remarkable, even allowing for the fact the epidemic commenced earlier in the USA. Does it mean that the proportion of single men who employ the most risky sexual practices is lower in this country?

In view of the long latent period, the pattern of occurrence of persons with positive antibody tests is a much better guide to the future than the number of cases of AIDS. In spite of the admittedly fragmentary and preliminary nature of the data I have therefore summarised the British serological data on the next ILLUSTRATION (1). These data show that HTLV3 infection:

1. has continued to spread increased in prevalence among homosexuals in London. Elsewhere it may also be increasing in prevalence but remains less common that in the capital;

2. it is prevalent among haemophiliacs, particularly sufferers from Type 'A' haemophilia. Fortunately however no new cases of infection should now occur in this group;

3. it has appeared, so far at low prevalence among female partners of haemophiliacs;

4. it remains relatively uncommon among drug abusers.

The groups at high risk within the United Kingdom are given on the next ILLUSTRATION (2). There will be no debate about those in the left hand column classified as actually at risk. The list of those suggested as at potential risk in the right hand column brings me to the most important and difficult question in relation to the future shape of the epidemic - the issue of heterosexual spread.

Heterosexual Spread

The difficulty is that there are two sets of data which are hard to reconcile: those from the United States, Britain and other developed countries and those from certain areas of Sub Saharan Africa. Let me deal first with the United States where there is the advantage from the ~~scientific~~ statistical point of view of large numbers and the epidemic has been in progress for about two years longer than ours.

The next ILLUSTRATION (3) shows the total numbers of notified cases in the USA at the end of September 1985 by risk category for each sex separately. It can be seen that 118 (13.7 per cent) of the female cases and only 15 (0.1 per cent) of the men were considered to have been infected by heterosexual contact. These were persons who denied belonging to known AIDS risk-groups but reported sexual contact with a risk-group members or an AIDS patient of the opposite sex. The majority of these said they had had sexual contact with IV drug abusers.

As far as male to female transmission is concerned the only estimate of incidence available is that in female contacts of IV drug abusers in the United States (6 per 100,000). This incidence rate is about one fiftieth of the rates in male homosexuals which may suggest that transmission of virus from male to female ~~may be more~~ is difficult than from male to male. Other points in support of this view include low rates of positive serology in partners of haemophiliacs, (5/100 in England and Wales) and the finding that, as far as women are concerned, steady sexual relationships rather than casual encounters with infected persons seem to be a risk factor. Those studies of HTLV antibodies in ~~the~~ female prostitutes in the United States and Europe which have become available so far, suggest that their principal risk of infection has been from infected needles and equipment used in IV drug abuse. Of about 4,000 West German prostitutes tested, one per cent have been found to be positive, almost all of whom were IV drug abusers. In Florida, 10 of 25 prostitutes were positive of whom 8 were drug abusers. Five of 92 prostitutes in Seattle were positive but no information is available about drug abuse.

In the United States, judging by the reported cases of AIDS, transmission from female to male appears to have occurred rarely and substantially less frequently than in the other direction. Thus by 1 October 1985 only 15 male cases, due to heterosexual contact had been reported in a total of 12,353 (ie 0.1 per cent). One reason for this is almost certainly that judging by the distribution of cases of AIDS the total number of heterosexual women infected with HTLV3 is substantially less than the total number of heterosexual men. But it may also be the case that transmission from female to male is more difficult than transmission in the reverse direction as, for example, has been reported for gonorrhoea. Personally I am much influenced by the experience of New York City where more than 200 cases of AIDS have occurred in female IV drug abusers ~~the~~ a substantial proportion ~~majority~~ of whom are prostitutes. In spite of the fact that (allowing a factor of 50 infected for every case of AIDS) must some thousands of female prostitutes ~~much~~ have been infected, the number of cases of AIDS in male heterosexuals so far reported in New York City has been very small indeed. Finally it is worth noting that in the United States up to the present there has been no evidence of a trend of increasing numbers of cases of AIDS of heterosexual origin in either the country as a whole or in New York, or of cases of AIDS of unknown origin.

In contrast with the United States and the United Kingdom where male/female ratios of reported cases of AIDS have been respectively 14:1 and more than 20:1, in certain parts of Sub-Saharan Africa including areas in Zaire, Ruanda, and Uganda, ratios approaching unity have been reported. Very high rates of seropositivity are also being found in males and females from surveys both in urban and in rural areas of sub-Saharan Africa. These have been reported as being associated primarily with heterosexual rather than homosexual activity and high prevalence rates of antobodies have been found in female prostitutes. The sharing of needles for injections of antibiotics and other medicines, tribal scarification, bites of blood sucking insects and the effect of malnutrition on resistance to infection, have all been considered as possible additional means of transmission. It has also been suggested that the strain of virus may not be identical with that found in the United States and Europe.

In respect to the most recent report of HTLV3 related disease in rural Uganda, Richard Tedder who is a co author has written to me as follows:

> "Both heterosexual and homosexual activity is common and are associated with a high prevalence of seropositivity. The infection has probably been introduced from Tanzania by traders plying along the route to Mombasa and by troop movements in the fall 4 years ago. 10 of 15 traders tested were seropositive and openly admitted to bisexual practices. Thus though heterosexual spread may be common, we cannot estimate the efficiency of female to male transmission."

The scientific data on which it would be possible to reconcile the features of the epidemics of HTLV3 infection occurring in Africa (and perhaps parts of the Caribbean) with those occurring in the United States and Europe simply do not, in my opinion, exist at present. The societies are profoundly different from ours and the details of intimate sexual life and other social customs are notoriously difficult for persons from other cultures to elicit - particularly through interpreters. Whatever the complex of factors may be which determines the acknowledged differences between the epidemics, it seems sensible to me that we should look to the American experience - which is based on a society far more akin to ours than those of Africa - for a model of the likely course of our own epidemic in the immediate future. And the conclusion I draw from that, on the basis of experience to date is, to put it in a nutshell, that transmission of the infection is more likely to occur as a result of anal intercourse than vaginal intercourse although we must base our policy on the clear evidence that transmission as a result of either can occur. The most risky behaviour of all is probably anal intercourse with a large number of different partners.

Control of spread of the infection

The plan for control of the epidemic should, I think, be based on the assumption that no effective vaccination or treatment is likely to be available for five years at least. Of course I have no magic crystal ball to guide me on this matter but if we plan on this basis we are more likely to get on urgently with such measures as we have at our disposal now.

On the next ILLUSTRATION (4) I have set out the means of transmission of HTLV3 virus which on the basis of present evidence are relevant to the United Kingdom. It is ~~possible~~ certain that at least 90 per cent of the transmissions which have occurred so far have resulted from sexual intercourse and the vast majority of these from intercourse between males. All the non-sexual types of transmission, although important for obvious reasons, have together ~~constituted~~ been responsible for a small minority of transmissions. The lynch pin of our strategy to control the spread of infection must therefore be to provide people with information and practical advice on sexual behaviour which will enable them to avoid infection with HTLV3; and in addition to tell them what they need not worry about.

The national campaign of public education

As has been announced recently in the press, a programme of public education is currently being planned urgently by the Government. Although no final decisions have been reached, it is probable that the campaign will involve both programmes specially tailored for the needs of the groups at special risk eg homosexual males and drug abusers and also a programme directed at the population in general. A general campaign will be necessary for two reasons. First because this is the only way to reach such groups as undisclosed homosexuals and undisclosed bisexual men. Second it is the only way to reach other sexually active men and women. Potential and actual sexual partners of people in high risk groups are of particular importance because they provide links from the at risk groups to the general population. Provision must also be made for education in schools and colleges. In addition to pamphlets, leaflets and the use of freephones, the use of advertisements in the local and national press is being considered. Careful step by step evaluation will take place. It is noteworthy that a recent Gallup poll conducted in the United States showed that both adults and adolescents possessed a high level of accurate information about AIDS. Programmes of general public education will have to be followed up by local initiatives to encourage people to avoid risks of transmission of the infection.

Testing for antibodies to HTLV3 infection

The 14 October saw the general introduction of tests for specific antibodies to HTLV3 infection throughout the United Kingdom. A number of those responsible for the careful evaluation of the tests and for their organisation are here today and I would like to take this opportunity to congratulate them. The fact that the date of 'T' day was fixed six months ago and was not subject to any slippage is quite unprecedented in my experience and is a triumph for all concerned.

In many people's minds the principal object of the tests is to ensure that the blood transfusion service is made even safer than it is already. I do not minimise the importance of this aspect. Very early results are suggesting that our efforts to dissuade people at risk from donating blood have been successful and that infected donations are very rare. The general availability of the test will also make donation of sperm and of organs for transplant even safer too. In order to ensure the simultaneous introduction of the test everywhere, proper evaluation and as we hope, the provision of sufficient counselling, it was well worth waiting the six months since kits first became available. In at least one European country where general facilities for testing free of charge have not been available there is evidence that homosexuals have donated blood in order to have a diagnostic test.

But do tests for HTLV3 antibodies also have a role to play in the control of spread by sexual transmission? I have noted widely differing and strongly held views on this point. Some members of the medical profession take the view that, as there is no treatment available to offer patients who have been infected with the virus and who are free of symptoms, and the advice at least to a homosexual man - namely to avoid unsafe practices and reduce partners - is the same whether he has a positive or negative test, there is no point in offering these tests in clinics for sexually transmitted disease on a routine basis. At the other end of the spectrum some people consider that the test for HTLV3 antibodies should be promoted by a campaign directed at all those who have been at risk. The aim of such a campaign would be to ensure that as many as possible of all those in the population who have been infected would come forward and thus be subjected to counselling about their subsequent sexual behaviour.

I have two points to make on this issue. The first relates to the fact that it is known that an infected woman can pass the virus to a subsequently conceived child. It follows that bisexual and heterosexual men and women who are HTLV3 positive have a responsibility which men and women who are negative do not have. Knowledge of the result of a positive test puts such people in a position to make an informed choice. This suggests to me that there may be a case for offering the test to patients attending STD clinics - at least in the case of homosexual men where there is any question of bisexuality and for drug addicts and ~~for~~ women who are members of high risk groups.

My second point is a more speculative one. Is a patient in a high risk group more likely to change his behaviour if he knows whether he is HTLV3 positive or negative, or if he does not know? Each of us will have our own views on this matter. It is so important that it deserves urgent consideration. After all, if knowing whether one is positive or negative does make a change of sexual behaviour more likely, we need to know, because we have at present so few tools at our disposal to combat spread. No decision has been taken on the promotion or otherwise of the test by the Government. Other than in the National Blood Transfusion Service where it is carried out on all donations, the test is there for those patients and doctors who wish to make use of it.

As far as transmission of virus by non-sexual means is concerned, I have already dealt with the National Blood Transfusion Service. Advice is being considered as to how best the HTLV3 antibody test should be used to protect organ and sperm donations. The use of heat treated Factor VIII and IX promises to ensure that no new infections occur among patients with disorders of coagulation or as a result of treatment with these substances. Careful consideration of the evidence in the United States indicates that apart from needle stick injuries in health care workers, there have been no risks associated with occupation. I have already referred to the three reported cases of sero conversion following a needle stick injury in a health care worker (two presumptive and one certain). However sero conversion is a rare consequence of such injuries. According to a recent review sero conversion did not occur in 121 other health care workers in the United States who were injured by infected needles or sharp instruments. Interim guidance has been issued to health care workers in the United Kingdom and further consideration is being given to this advice in the light of the latest experience of care of such patients.

No plan for control of a communicable disease is complete without effective epidemiological surveillance. The voluntary notification scheme for cases of AIDS to CDSC has worked well. In recent months reporting of positive HTLV3 antibody tests to CDSC on a strictly confidential basis has begun. Now that these tests are generally available we have an opportunity to gain a much more accurate and up to date picture of the spread of the infection than we have had to date. This will be of great value in determining the success or otherwise of our efforts to influence spread.

Confidentiality and other social issues

The success of any plan for the control of spread of the infection is also linked with a number of social issues. Prime among these is the question of confidentiality. Experience has shown that most people who fear they have been exposed to a sexually transmitted disease wish the fact of any consultation with a doctor and the result of that consultation to be kept strictly confidential. To cater for this need a system of free walk in clinics where anonymity was guaranteed, and referral from a general practitioner was not required, was set up throughout the UK at the time of the first World War. This system, which includes clinical records which are locked away separate from the main hospital records, has worked well, and is protected by special regulations.

Other than in exceptional circumstances, the doctor may not disclose information to persons not involved in the treatment of the patient without the patient's consent. Where the patient is found, for example, to be infected with HTLV3 virus, the doctor will advise him/her how to avoid transmitting the infection to others and also to inform his sexual partner or partners. What the doctor may not do, however, is to inform these sexual partners against the wishes of the patient. The principle which underlies this view is that unless confidence is guaranteed, patients will not come forward for diagnosis and counselling and that this will drive the condition underground and increase the risk of spread in the population.

Other issues which are being considered in many other countries are problems of the control of spread in residential institutions such as prisons and in the Armed Forces. Interim advice has recently been issued by the Department of Education and Science about the management of seropositive children in schools. If the view should be taken that persons who have been at risk should be encouraged to come forward for testing, it will be necessary to consider the implications for persons with positive tests who subsequently wish to take out life insurance policies or mortgages. Some organisations within the gay community recommend that homosexual men should not come forward for testing until arrangements have been made which ensure that persons with positive tests are not subject to financial detriment. The Government has announced the setting up of an interdepartmental ministerial group to consider these and other issues.

Conclusion

I commenced this talk with a brief review of the epidemiology of HTLV3 infection and have tried to place the outbreak in the UK in the perspective of outbreaks which have occurred in other countries. Judging by the known cases of AIDS, the incidence here is very much lower than in the United States and somewhat lower than in a number of other European countries. A low incidence of AIDS in drug addicts here as compared with the United States is a further favourable factor but this could, of course, change ~~at short notice~~. These points give no grounds for complacency but suggest that we may be in a better position in this country to gain control of the outbreak. As far as the immediate future is concerned I have given reasons why I think the evolution of our outbreak will resemble more closely those in the United States and Europe than the African outbreaks.

Setting aside the instances of infection which have occurred following the use of Factors VIII and IX derived from pooled plasma, and from transfusion of whole blood, which together with infection due to transplantation of organs, or donation of semen, would not occur in the future, action to control further spread must be directed at changing sexual behaviour in the direction of safer practices. Although the evidence from the United States strongly suggests that anal intercourse is more dangerous than vaginal intercourse it is clear that transmission can occur as a result of both. A campaign of public education is being considered urgently which is likely to be directed both at the groups currently at high risk, and at the population in general. It will give practical advice how the risk of HTLV3 infection may be avoided.

Finally, I have deliberately brought out some controversial points for discussion. These include the relationship of the presence of specific HTLV3 antibody to infectivity; the possible role of the antibody test in the general control of spread of the infection; and the confidentiality issue.

Thank you for your attention.

PREVALENCE OF HTLV3 ANTIBODIES IN VARIOUS GROUPS

Homosexual men	1980	1982	1984	1985
London	5%+	22%+	34%+	35%
			5%+	(1.6% (11.2%
				(5% 10%) ( ) (12% 10%) ( ) (16% 7%) ( ) (4%)

+Mortimer et al

Drug Abusers	1984	1985
	2.5%+	1.4%

*Pooled data from 140 tested in 3 centres 1.4% plus *3 case reports.

Haemophilia

	1985
"A"	44%
"B"	7%
All	36%

A total number of 865 persons positive

Female sexual contacts (100 tested) 5%

Female prostitutes

2 positives: 1 also a drug abuser. Number tested unknown.

MEANS OF TRANSMISSION OF HTLV3
AND POSSIBLE CONTROL MEASURES

Route	Control measures
Sexual intercourse	Education directed at groups at risk and general public ? HTLV3 antibody testing plus counselling
Addicts' infected equipment	? HTLV3 antobody testing plus counselling
Factors VIII and IX	Heat treatment
Blood transfusion and other donors	Discourage high risk donors HTLV3 antibody testing
Mother to foetus	Education to high risk groups HTLV3 antibody testing

AIDS. USA. CASES UP TO 1 10 85

BY RISK GROUP

	Males	(%)	Females	(%)
Homosexual/Bisexual Men	9,711	(79)	-	-
IV Drug Users	1,790	(14)	459	(53)
Haemophilia	89	(1)	4	(0)
Heterosexual contact	15	(0)	118	(14)
Transfusion Recipients	121	(1)	87	(10)
None/Other	627	(5)	195	(23)
All	12,353	(100)	863	(100)

AIDS in US risk groups

Single men	per 10^5
USA	14
Manhattan	213
SanFransisco	340
IV drug users	
USA	168
NYC	261
NJ	350

Haitian entrants	10^5
After 1977	101
Before 1978	2
Haemophiliacs	
Type A	346
Type B	35
Female contacts, IV	6

1984 Incidence Per 100,000 population

source Curran, T.W. et.al. 1985

Cases of AIDS reported in UK: by year

1982	3	
1983	28	
1984	77	
1985	117*	(c 170)

* 9 months

source CDSC Communicable Disease Report

GROUPS AT RISK IN UK

Actual	Potential
Male homosexuals	Prostitutes
Haemophiliacs+	Other women
Drug addicts	Heterosexual men
Sexual partners of above	
Children born to positive women	

+ no new infections should now occur

NB Rare cases also reported following blood transfusion and accidental inoculation.