No objection

Please file
AIDS file

Carl –
Comments by

Document No. _____

WHITE HOUSE STAFFING MEMORANDUM

DATE: 12/20/85 **ACTION/CONCURRENCE/COMMENT DUE BY:** 12/24/85

SUBJECT: JOINT EPC/DPC DECISION MEMORANDA: ANTITRUST LAW REVISIONS & AIDS

	ACTION	FYI		ACTION	FYI
VICE PRESIDENT	☐	✓	McFARLANE	✓	☐
REGAN	☐	✓	OGLESBY	✓	☐
MILLER	☐	☐	RYAN	☐	☐
BUCHANAN	✓	☐	SPEAKES	☐	✓
CHAVEZ	✓	☐	SPRINKEL	✓	☐
CHEW	☐	✓	SVAHN	✓	☐
DANIELS	✓	☐	THOMAS	✓	☐
FIELDING	✓	☐	TUTTLE	☐	☐
HENKEL	☐	☐	_____	☐	☐
HICKS	☐	☐	_____	☐	☐
KINGON	✓	☐	_____	☐	☐
LACY	☐	☐	_____	☐	☐

REMARKS: Please provide any comments/recommendations by Tuesday, December 24th. Thank you.

RESPONSE:

David L. Chew
Staff Secretary
Ext. 2702

THE WHITE HOUSE

WASHINGTON

December 19, 1985

MEMORANDUM FOR THE PRESIDENT

FROM: ALFRED H. KINGON

SUBJECT: Antitrust Law Revisions and AIDS Program

Attached are the two decision memoranda reflecting the Joint EPC/DPC meeting.

There were unanimous recommendations on both issues and you can sign the last page of each memorandum after reading.

Attachments

THE WHITE HOUSE

WASHINGTON

MEMORANDUM FOR THE PRESIDENT

FROM: THE DOMESTIC POLICY COUNCIL

SUBJECT: Acquired Immune Deficiency Syndrome (AIDS)

Issue - What should the federal government do to deal with the problem of AIDS?

Background - Acquired immune deficiency syndrome (AIDS) is a very serious, apparently always fatal disease caused by a virus. The incidence of AIDS cases is increasing steadily in the United States. More than 15,000 persons have been diagnosed with the disease since 1981, and more than half of them have died. A much larger number of persons is known to be infected with the virus. The incubation period, during which a person is infected but does not have obvious disease, may last for several years. Infected persons may be capable of transmitting infection to others for many years, even though they may be free of symptoms. Virus infection is known to be transmitted through sexual contact, through equipment used to administer intravenous drugs of abuse, through contaminated blood or blood products and from infected mothers to infants. No effective vaccine or therapy exists.

AIDS and the Federal Government - In the past four years, the Department of Health and Human Services has been the major focus of AIDS activities in the federal government. The AIDS research effort has been progressively accelerated and has yielded extensive information on AIDS and the virus that causes it.

This research has yielded extensive information on AIDS and the virus that causes it. A test for AIDS virus antibody has been developed and licensed. Blood banks are using it to screen potential blood donors, to reduce the possibility of transmission of the virus. The Department of Health and Human Services is developing a series of recommendations for reducing the risk of contracting AIDS. While awaiting the development of AIDS drugs and vaccines, major effort is focused on public information and education to reduce the risk of the spread of the AIDS virus.

The Department of Defense has begun testing all potential recruits for AIDS virus antibody, and counseling and excluding from the military those testing positive. Also, the Department of Defense will test all active duty personnel, in a priority order, over the next year. Those who test positive will be evaluated to determine whether they are ill. If so, they may be processed for discharge. If not, they will be retained, but their deployment may be restricted.

Other departments and agencies have the following AIDS activities under consideration:

- Department of Education -

  Serving as an information resource for state and local education officials.

- Department of Justice, Bureau of Prisons -

  Isolating inmates with AIDS and AIDS related complex; testing some or all inmates for AIDS virus antibody.

- Department of State -

  Testing personnel, on a voluntary basis, for AIDS virus antibody, with counseling and assignment restrictions for those who test positive.

- Veterans Administration -

  Augmenting health resources to care for veterans with AIDS.

The cost of AIDS to the federal government has risen from $5.5 million in FY 1982 for research in HHS, to about $400 million in FY 1986 for all federal AIDS activities.

Conclusions

- AIDS is a major epidemic public health threat.
- The number of AIDS cases will continue to increase.
- There are long-term hopes for drugs and vaccines against AIDS, but none is immediately at hand.
- Major effort should focus on prevention, to inform and to lower risks of further transmission of the AIDS virus.

Recommendation - The Council unanimously recommends the following steps:

- Urging federal agencies and state and local governments to take all necessary steps to lessen the risks of the spread of AIDS, including timely dissemination of accurate information on AIDS.
- Emphasizing that, for the general welfare of society, AIDS must be dealt with as a major public health problem. This could be done through the publication of a special report on AIDS, and enhanced public information efforts.

Decision

The Council recommends that you approve these steps.

Approve Council Recommendation _____

Disapprove Council Recommendation _____

Further Discussion Required _____

Edwin Meese III

Edwin Meese III
Chairman Pro-Tempore

THE WHITE HOUSE

WASHINGTON

December 16, 1985

MEMORANDUM FOR THE PRESIDENT

FROM: THE DOMESTIC POLICY COUNCIL
THE ECONOMIC POLICY COUNCIL

SUBJECT: Antitrust Review

Since the enactment of our major antitrust laws, the Sherman Act of 1890 and the Clayton Act of 1914, the world has changed considerably. Early in this century the "global economy" was unheard of. Today, the global economy is a reality, a reality to which U.S. business and the U.S. Government must adjust. That adjustment should include refining our antitrust laws to reflect the dynamics of world trade.

The Domestic and Economic Policy Councils have reviewed our antitrust laws, seeking to refine and adjust those laws not only to the integrated world economy, but also to reflect the increasing economic and legal sophistication regarding mergers and antitrust restrictions. This memorandum outlines for you several recommendations that the Councils believe will enhance the vigor and competitiveness of American businesses, while continuing to protect American consumers and businesses from unfair practices, including monopolies, cartels, and price fixing.

ECONOMICS AND ANTITRUST

The economic thinking that dominated antitrust legislation and enforcement through much of this century was that "big is bad." Any action toward greater concentration within an industry was attacked as a threat to competition and free trade.

Over the past decade, thinking has changed. Europe and Japan, with our help, have gained a formidable share of the world market and foreign competitors have made substantial inroads into the U.S. domestic market. In part because of increased diversity and heightened competition in global markets, economic thinking about the potential effects of mergers and other efforts by American firms to achieve greater efficiency has become more sophisticated: big is no longer viewed as necessarily bad and most mergers are supported as pro-competitive, helping businesses to achieve greater efficiency and consumers to enjoy lower prices.

Two of your appointments to Federal appellate Courts, Judges Robert H. Bork and Richard A. Posner, have pioneered a trend toward taking economic factors into greater account in antitrust

cases. This thinking improves upon the early 20th century antitrust philosophy by encouraging pro-competitive mergers and cooperative business arrangements, while continuing to guard against anti-competitive abuses that harm consumers and business alike.

Your Administration has captured the increasingly sophisticated economic thinking in the Justice Department's Merger Guidelines, which serve as a guide to Federal antitrust enforcement for the courts and the private sector. The Justice Department also has sought to promote an economically rational approach to antitrust by reforming government case selection criteria, filing briefs in private lawsuits, and issuing public pronouncements.

PROBLEMS IN ANTITRUST

Even with these significant advances in antitrust policy, more remains to be done.

- Our antitrust statutes, as opposed to enforcement policies, have not been reformed to reflect changes over the years in antitrust thinking. Current policies and judicial trends could be reversed by the discretionary action of future administrations.

- Current remedies for injuries in antitrust cases provide automatic damages that are three times the amount of the injury. These treble damage provisions were written into the law to deter anticompetitive behavior and encourage private vigilance against harmful cartel agreements, which are typically reached by competitors acting in secret. However, automatic treble damages also encourage frivolous law suits and unjustified settlements.

- The antitrust statutes occasionally pose a disincentive to firms contemplating mergers to improve their competitiveness. The test applied to mergers, while made much clearer under the Merger Guidelines, still remains uncertain and poses a barrier to some firms. Moreover, the Guidelines do not prevent private parties from suing to prevent mergers.

RECOMMENDATIONS

The Domestic and Economic Policy Councils have developed a series of recommendations for refining the antitrust laws by:

- Detrebling antitrust damages, except in cases of overcharges or underpayments and otherwise "fine-tuning" the antitrust remedies;

- Amending the Clayton Act to strengthen and clarify the wording of the statutory standard for mergers and codify the principles embodied in the Justice Department's Merger Guidelines;

- o Establishing a limited antitrust merger exemption as an alternative remedy under Sections 201-203 of the Trade Act of 1974 for domestic industries injured by imports;

- o Lifting unnecessary restrictions on interlocking corporate directorates; and

- o Clarifying the factors courts should use in deciding whether to exercise jurisdiction in antitrust cases involving foreign commerce.

Detrebling and other Remedies Improvements

As mentioned earlier, treble damages can have positive effects in deterring and apprehending violators of our antitrust laws. However, trebling can also have serious anticompetitive side effects. Firms may shy away from practices such as aggressively lowering prices or innovative distributional practices because of the fear of treble damages. In addition, businesses may use the threat of treble damages to inhibit their more successful rivals.

The practice of awarding treble damages poses additional problems. Because each defendant is jointly and severally responsible for all defendants' damages, there is a strong incentive for defendants to settle rather than defend their actions, for fear that their co-defendants will settle first, leaving them with a disproportionate share of the damages should they be found liable.

In addition, successful plantiffs in antitrust cases are awarded attorneys' fees, which encourages antitrust suits. Successful defendants, however, do not receive attorneys' fees. This imbalance creates incentives for antitrust litigation and an incentive to settle, sometimes without regard to the merits of the case.

The Domestic and Economic Policy Councils offer three proposals for refining the application of treble damages:

1. Treble damages should only be awarded in cases involving overcharges or underpayments;

2. The plantiff's claim for damages in an antitrust suit should be reduced by the share of damages fairly allocable to any person released from liability; and

3. Attorneys' fees should be awarded to successful defendants in cases that are judged to be "frivolous, unreasonable, without foundation, or in bad faith."

Mergers and Acquisitions

The Councils also propose to clarify and improve the antitrust statutes by amending the Clayton Act to:

1. Strengthen the language of the statutory standard governing mergers to require a "significant probability" of harm rather than continue to test mergers under the current "may tend to" (or incipiency) formulation;

2. Clarify that the harm to be avoided is increases in prices to consumers; and

3. Codify the principles of the Justice Department's Merger Guidelines.

Import Relief

Sections 201-203 of the Trade Act of 1974 authorize the President to provide a domestic industry relief from foreign imports if the International Trade Commission (ITC) finds that an increase in imports is the substantial cause of actual or threatened injury to the domestic industry. Current relief measures include: tariffs, duties, quotas, and orderly marketing arrangements.

The Councils propose that the list of relief measures be expanded to include a partial antitrust exemption for mergers and acquisition in domestic industries injured by imports. The exemption would be for a limited period of time, up to five years.

The Councils believe there are two reasons for including the antitrust exemption in the range of relief options: (1) in the face of foreign competition significant enough to cause an injury finding under Section 201, the threat of collusion among domestic firms resulting from a merger is sufficiently small to justify a more liberal standard; and (2) the antitrust exemption would be a non protectionist alternative to the other possible relief measures.

Interlocking Directorates

Section 8 of the Clayton Act prohibits a person from serving on the board of one or more corporations competing with another, however remotely. This absolute restriction causes much frustration as potential directors of diversified companies are repeatedly disqualified as directors after discovery of insignificant competitive overlaps.

The Councils propose to amend Section 8 of the Clayton Act to exempt interlocks where competitive overlaps are de minimus as measured by sales of the same product or sales in the same market. The Councils also propose to raise the threshold for Federal law prohibition of interlock from situations where either company has $1 million in equity to situations where both companies have at least $10 million in equity. These proposals would remove an unwarranted and bothersome restriction and provide greater certainty with regard to permissible corporate directors.

Jurisdiction in Foreign Commerce Cases

Our trading partners and allies have expressed some consternation at the application of the Sherman Act to the international arena. They believe that this application of our antitrust law interferes with their domestic policies and objectives and represents an unwarranted intrusion upon their sovereignty. The United States has reserved the option to exercise jurisdiction over some international conduct because of its effect on our commerce.

The Councils propose that our antitrust laws be amended to require courts to dismiss private suits when, in light of specified factors, the exercise of jurisdiction would be unreasonable. Some of the factors to be considered would include: the nationality of the parties involved; the significance of the alleged violation to U.S. consumers and competitors; the presence of an intention to harm U.S. consumers and competitors; and the degree of conflict between U.S. and foreign law.

LEGISLATION OUTLOOK

The Councils unanimously agreed upon each of these proposals. We believe they are reasonable and important advances in antitrust law and enforcement.

We must caution that some of these proposals may arouse significant opposition and, in fact, spawn counter-proposals inconsistent with your Administration's policies. Nevertheless, we can also expect substantial support for some if not all of these proposals.

RECOMMENDATION

The Domestic and Economic Policy Councils unanimously recommend that the Administration forward legislation incorporating all of the proposed changes in antitrust law.

Approve_____ Disapprove_____

Edwin Meese III
Chairman Pro Tempore
Domestic Policy Council

James A. Baker III
Chairman Pro Tempore
Economic Policy Council

WILLIAM E. DANNEMEYER
39TH DISTRICT, CALIFORNIA

COMMITTEES:
ENERGY AND COMMERCE
JUDICIARY

WASHINGTON OFFICE:
1214 LONGWORTH HOUSE OFFICE BLDG.
WASHINGTON, DC 20515
(202) 225-4111

DISTRICT OFFICE:
1235 NORTH HARBOR BOULEVARD
SUITE 100
FULLERTON, CA 92632
(714) 992-0141

Congress of the United States
House of Representatives
Washington, DC 20515

November 22, 1985

The President
The White House
Washington, D.C. 20500

Dear Mr. President:

As Members of Congress, we feel the actions taken by the Department of Health and Human Services and the Centers for Disease Control to control the AIDS epidemic have been completely inadequate. Dr. James Mason, as Acting Assistant Secretary for Health and Acting Director of CDC is responsible for both the determination and administration of public health policy within these parameters. In this capacity, Dr. Mason has failed to exhibit the requisite degree of competence in responding to the AIDS epidemic.

It is imperative to recognize that AIDS is unlike other epidemics such as measles and Hong Kong flu because it is an invariably fatal disease for which there is no cure and the transmission of which has escaped precise definition. Since there is neither the means for inoculation nor a cure, the only recourse is for HHS and CDC to take whatever measures are necessary to protect the public health. In this regard, Dr. Mason has failed to meet the obligations of his office by taking responsible actions in handling this public health crisis.

First, the guidelines promulgated by CDC and the U.S. Public Health Service are imprudent at best and fail to address imperative dilemmas faced by every sector of society in dealing with this epidemic. Some specific examples follow.

On February 14, the U.S. Public Health Service (PHS) issued guidelines on AIDS and the donation of blood. At this time they recommended that intravenous drug users be prohibited from donating blood and that male homosexuals who had not been monogamous since 1979 should refrain from donating blood. This recommendation blatantly ignored available medical data and common sense. At the time these guidelines were issued PHS knew that male homosexuals comprised 73% of known AIDS cases yet the guidelines merely suggested these individuals refrain from donating blood while prohibiting donation by intravenous drug users who are only 13% of identified cases. PHS knew that the incubation period for AIDS may be as long as 8 years, and yet the recommendations only mentioned promiscuous gay relationships within the past 6 years. Finally, PHS was aware that the Kinsey Institute had released a study indicating that the longest relationships between homosexuals averaged

one to three years and that these relationships were generally not monogamous. Following the release of these guidelines, PHS reported that they were a product of a compromise between the homosexual community and public health authorities. Clearly, actions needed to protect the public health and the integrity of the blood supply should not be a matter of compromise between political entities.

On August 8 Congressman Dannemeyer wrote to HHS suggesting all homosexuals be placed in the same category as intravenous drug users, namely, that they be prohibited from donating blood. On September 6 his recommendation was partially implemented and all "males who have had sex with another male since 1977" were requested to refrain from donating blood. In October the Red Cross began affixing a sticker to its blood donation pamphlets which reads "males who have had sex with other males since 1977 must not donate blood." It should not have been necessary for a Member of Congress to take appropriate action to protect the nation's blood supply but rather should have been a matter of course for the appropriate public health authorities at FDA and HHS. AIDS should have been handled like any other health threat of epidemic proportions, with prompt, common sense guidelines that address the problem and ignore the politics.

Secondly, the August 30 guidelines promulgated by CDC to deal with the problem of school children with AIDS failed to provide any rational recommendations to districts actually faced with this problem. The guidelines advocate that each child be dealt with on a case-by-case basis and that confidentiality be accorded a high priority. It is appalling that a child with measles, flu, chicken pox, or any other non-fatal disease is kept away from school for the protection of that child and others, while the child with AIDS, which is currently 100% fatal and decried as a disease which remains a mystery, is not only encouraged to attend school but to do so anonymously so that the other children are precluded from taking appropriate precautions to protect themselves should they come into contact with the child's blood or body fluids.

The most recent guidelines, issued by CDC on November 15, represent yet another example of useless, irresponsible suggestions from the Public Health Service. These guidelines recommend no seriologic testing for health care workers, food handlers or personal service workers based on the rationale that the disease poses no risk to co-workers, customers or patients. This decision appears particularly irresponsible in light of the results of a recent experiment published by The Lancet which indicates that the AIDS virus can live up to 10 days outside the body. CDC has continually cited that the virus is fragile and cannot live outside the body as a rationale for stating the disease cannot be casually transmitted. Although we do not question the judgement of the medical experts at CDC, it appears that blanketly advising hospitals and restaurants to refrain from testing personnel for AIDS and failing to prohibit AIDS victims from working in these areas is cavalier in light of this recent evidence and the magnitude of the disease.

The November 15 guidelines also recommend not testing patients for the presence of the antibody or the virus. This recommendation directly contradicts the testimony of three registered nurses at a Republican Study Committee hearing earlier this month. These nurses unanimously agreed that patients exhibiting any signs of AIDS should be tested for presence of the virus and that these results be disseminated immediately to health care personnel so that nurses and others charged with their care may be on notice of their condition. These nurses related horror stories of circumstances in which they were not told that a patient had AIDS and were required to perform procedures which required contact with blood and body secretions without the benefit of protection. These guidelines callously encourage continued anonymity of the AIDS victim at the risk of protecting our health care professionals.

All CDC guidelines have ignored historical medical data which illustrate that AIDS is a virus and that viruses have been found to change in virulence and therefore in possible modes of transmission. Studies already exist which show that the AIDS virus changes form and may disappear altogether during the course of the illness. Such medical data suggest to the layman that all practical measures should be pursued to guard against possible means of transmission as well as proven forms. CDC has rejected this premise and erred on the side of optimism to "prevent public hysteria." Public hysteria is better prevented by taking all possible precautions to protect public health rather than adopting a wait-and-see attitude.

In addition, it is evident that persons with AIDS are very ill individuals and have a number of attendant diseases which are themselves infectious. A 1983 article by Pat Buchanan entitled Gay Times and Diseases regales the diseases harbored by a large part of the gay population. Among these diseases are amebiosis, giardiosis and shigellosis which are conditions attendant to "gay bowel syndrome" which is present in 39% of the homosexual population and can be transmitted by unclean hands in contact with food or water. Another disease common to AIDS victims is dementia, which invades the brain and causes the victim to lose control of his mind and body functions. Therefore even if AIDS itself is not casually transmitted, these attendant diseases most certainly are and should be sufficient cause to test workers in high risk fields for signs of the disease.

In addition to poor guidelines, CDC overlooked the most obvious means of curtailing the spread of this disease when it failed to recommend that public health authorities shut down bathhouses. This blatant omission is notable since, historically, public health officials have taken a fire hose to the source of the fire rather than abdicating these traditional responsibilities to other sectors of governments. In this case, Congress again was forced to take the matter into its own hands. On October 2, the House passed an amendment, 417 to 8, to give the Surgeon General the power to close public bathhouses. At a Republican Study Committee hearing following that vote a spokesman from CDC said they planned to issue guidelines suggesting that

public health officials close bathhouses. The guidelines have still not been issued.

CDC, HHS and PHS have failed to take any prudent steps to ensure that AIDS will not spread to the population at large. In addition to closing bathhouses, we feel that steps such as encouraging direct donations of blood, mandating reporting of AIDS and ARC to CDC, and encouraging local public health services to notify partners of AIDS victims as is done with other venereal diseases, would be positive steps to discourage the spread of this deadly disease.

Several Members of Congress have written and spoken to Dr. Mason about this issue to no avail. When pressed for answers, Dr. Mason fails to respond or does so evasively and refuses to have CDC release all pertinent information relating to reported cases of AIDS and the circumstances of transmission. When questioned about the 6% of cases which do not fit into any high risk group, Dr. Mason assures Congress and the public that they are probably part of a high risk group, but he has no data to back up his statements. Calming hysteria is a noble goal but one which will never be reached through this means.

Dr. Mason has performed beyond the call of duty in protecting the sensibilities of the victims of AIDS but has fallen far short of protecting the health and well-being of the public at large. His competence and judgement in dealing with this virulent disease have been tried and proven inadequate. The facts we know are alarming and frightening; but what we don't know is even more so. Unavailable information needs to be unearthed and addressed, not swept under the rug. This is not a time for half-hearted action. The best way to avoid public hysteria and combat this epidemic is to be open, honest and vigorous in our pursuit of a cure for AIDS as well as our pursuit of a means to halt the spread of this disease. Dr. Mason has the authority to proceed, but lacks, in our estimation, the determination and reasoned judgement to do so.

We are not calling for the resignation of Dr. James Mason at this time. What we are asking you to do is to promptly meet with him and change the course of your administration on this issue. At this moment, between 500,000 and 1 million Americans have the AIDS virus in their blood. Within 5 years, between 25,000 and 250,000 of this group will have AIDS. The projected loss of life is tragic and the prospective cost to the taxpayer is awesome. At current standards of care, each of these patients consumes $150,000 of health care, mostly comprised of taxpayer dollars. The choice for your administration is either seek a solution aimed principally at protecting the public health and secondarily protecting the sensitivities of those tragic victims of AIDS, or to continue pursuing a reversal of these goals, which is the apparent course of your administration at this time.

Sincerely,

Ralph M. Hall, M.C.

William E. Dannemeyer, M.C.

Newt Gingrich, M.C.

Robert K. Dornan, M.C.

Phillip M. Crane, M.C.

Mark D. Siljander, M.C.

Thomas F. Hartnett, M.C.

Robert S. Walker, M.C.

Don Sundquist, M.C.

The Epidemiology of AIDS: Current Status and Future Prospects

James W. Curran, W. Meade Morgan, Ann M. Hardy
Harold W. Jaffe, William W. Darrow, Walter R. Dowdle

Summary. The reported incidence of acquired immune deficiency syndrome (AIDS) continues to increase in countries throughout the world. On the basis of a polynomial model for extrapolation, the cumulative number of cases diagnosed and reported since 1981 in the United States is expected to double during the next year with over 12,000 additional cases projected to be diagnosed by July 1986. The annual incidence rates for single (never-married) men in Manhattan and San Francisco, intravenous drug users in New York City and New Jersey, and persons with hemophilia A ranged from 261 to 350 per 100,000 population during 1984. For single men aged 25 to 44 years in Manhattan and San Francisco, AIDS was the leading cause of premature mortality in 1984 as measured by years of potential life lost. Infection with HTLV-III/LAV is considerably more common than reported AIDS in high-risk populations and can persist at least for several years, so the presence of specific antibody should be considered presumptive evidence of current infection. The screening of donated blood and plasma for antibody to HTLV-III/LAV and use of safer clotting factor concentrates should greatly reduce HTLV-III/LAV transmission through blood and blood products. Most HTLV-III/LAV infections occur through sexual transmission, use of contaminated needles, and as a result of infected mothers passing the virus to newborns. Continued research commitment is needed to develop an HTLV-III/LAV vaccine and therapy for this infection. In the interim, widespread community efforts are needed to minimize transmission.

The first cases of acquired immune deficiency syndrome (AIDS) were reported in mid-1981 (*1*). The initial occurrence of the syndrome among homosexual men and users of intravenous drugs suggested a transmissible agent as the cause. The transmissible agent hypothesis became more widely accepted by early 1983, with the well-documented occurrence of the syndrome in persons with hemophilia and recipients of blood transfusions (*2*). During the next year, a retrovirus variously termed lymphadenopathy-associated virus (LAV), human T-lymphotropic virus type III (HTLV-III), or AIDS-associated retrovirus (ARV) was isolated and shown to be the cause of AIDS (*3*).

Magnitude of the Problem

Cases in the United States. By 30 August 1985, 12,932 cases of AIDS had been reported to the Centers for Disease Control (CDC); more than half had been reported during the preceding 12 months. Over 6,480 (50 percent) persons were known to have died; the case fatality rate was over 75 percent for patients diagnosed before January 1983. Of the 12,767 adult cases, more than 73 percent were in homosexual or bisexual men (12 percent who also used intravenous drugs); 17 percent occurred in heterosexual men or women who used intravenous drugs. An additional 195 (1.5 percent) patients with no other risk factors had received a transfusion of whole blood or one of its components within 5 years of diagnosis, and 86 (0.7 percent) were persons with hemophilia who had received clotting factor concentrates. There were 129 (1.0 percent) heterosexual partners of AIDS patients or persons at increased risk for AIDS. The remaining 814 (6.4 percent) could not be classified by recognized risk factors for AIDS; this group included 341 persons born outside the United States, in countries where most AIDS cases have not been associated with known risk factors. Most of these cases in the United States were among Haitians. Of the 165 cases diagnosed among infants and children, 116 (70 percent) were born to a parent who had AIDS or belonged to an identified risk group for AIDS, 25 (15 percent) had received transfusions, 9 (5 percent) had hemophilia, and the remaining 15 had no identified risk factor or incomplete epidemiologic investigations.

Cases have been reported from 46 states, the District of Columbia, and three U.S. territories. Most cases have been reported from New York, California, New Jersey, and Florida, but proportionately greater increases have been noted recently from other states. The geographic distribution of AIDS cases in children with parents in high-risk groups is similar to that seen in heterosexual adult patients with AIDS.

The ad hoc model described in Fig. 1 predicts that over 12,000 additional cases will be diagnosed between July 1985 and June 1986 inclusive (*4*). Over half of these cases are predicted to be from states other than New York and California.

Cases outside the United States. By March 1985, 940 cases of AIDS had been reported from Europe to the World Health Organization Collaborating Center on AIDS (*5*). The largest number of cases were reported from France (307) and the Federal Republic of Germany (162). Seventy-two percent of cases reported were in homosexual men, but only 1.5 percent were in heterosexual men and women who used intravenous drugs. As of December 1984, 111 (15 percent) of the European patients were born in one of 18 African countries. Twenty-four (3 percent) of the European patients were born in Caribbean countries, with the majority from Haiti.

In the Americas, 778 cases had been reported from 14 countries other than the United States, the largest numbers being from Haiti (340), Canada (190), and Brazil (182) (*6*). Outside Europe and the Americas, the only country with a large number of reported cases is Australia (95).

Cases have been reported in residents of nearly 20 countries in Africa, but studies of AIDS have been conducted primarily in Zaire and Rwanda (*7*). In Zaire, the male to female ratio was approximately 1.1 to 1, and the annual incidence was estimated to be between 17 and 40 per hundred thousand population.

The authors are members of the AIDS Branch, Division of Viral Diseases, and the Office of the Director, Center for Infectious Diseases, Centers for Disease Control, Atlanta, Georgia 30333. Send requests for reprints to James W. Curran.

Incidence rates and mortality. Estimates of population-specific annual incidence rates of AIDS place the magnitude of the AIDS problem in the United States in perspective (Fig. 2) (*8*). Single men in Manhattan and San Francisco, intravenous drug users in New York City and New Jersey, and hemophilia A patients had high rates of disease (>250 per 100,000). For these groups, 1984 incidence rates of AIDS were similar to U.S. population incidence rates of all cancers (1973–1977 average annual incidence rate of 331.5 per 100,000) and mortality rate of heart disease (1982 mortality rate of 191 per 100,000) (*9*).

Recent Haitian entrants had estimated incidence rates much higher than Haitians who had entered the United States prior to 1978. This finding is consistent with the observation that AIDS is also a fairly new disease in Haiti.

Female partners of men who use intravenous drugs and recipients of blood transfusions had much lower estimated rates of AIDS. The estimated rate for transfusion-associated AIDS in children was nearly five times that in adults. Most pediatric patients had received their transfusions at the time of birth. Whether this observed increased risk is related to an increased susceptibility due to an immature immune system, to coexisting diseases, to a shorter latency period, or to other factors is unknown. The incidence rate of AIDS for those not in any of the groups listed is extremely low, about 0.1 per 100,000.

The high case fatality rate and the relative youth of those affected by AIDS leads to a dramatic effect on life expectancy in groups with a high incidence of disease. One way to examine this is with "years of potential life lost" (YPLL) before age 65, a measure of premature mortality (Table 1). In single (never-married) men aged 25 to 44 years in the United States, YPLL due to AIDS in 1984 was only slightly less than YPLL attributable to all cancers. In Manhattan and San Francisco, AIDS-related YPLL ranked above the other individual causes examined. In the United States in 1984, AIDS increased YPLL due to all causes among single men aged 25 to 44 years by at least 5 percent. In Manhattan and San Francisco this increase will be 43 and 74 percent, respectively.

Table 1. Years of potential life lost (YPLL) by cause of death and geographic area for single men aged 25 to 44 years. YPLL before age 65 can be used as a measure of premature mortality and are derived by multiplying the cause-specific number of deaths in each age category by the difference between 65 years and the midpoint age of each category. YPLL due to AIDS are for 1984; all other causes are for 1980 and were calculated from data provided by the National Center for Health Statistics.

Cause of death	United States	Manhattan	San Francisco
All	642,400	16,100	5,800
Accidents	188,000	1,400	1,500
Homicide, suicide	174,600	4,800	2,000
Cancer	39,500	800	400
AIDS	32,300	7,000	4,300

Natural History of HTLV-III/LAV Infection

Prevalence of infection by risk group. Of homosexual men tested in large cities in the United States or Europe, 17 to 67 percent have been reported to have antibody to HTLV-III/LAV, depending on the characteristics of the population (*10*). Antibody prevalence estimates in intravenous drug users in New York and New Jersey ranged from 50 to 87 percent, while prevalence in Europe is reported to be lower, 1.5 to 36 percent (*10, 11*). Persons with hemophilia A who had received clotting factor concentrates had 72 to 85 percent seropositively rates, and exposure to HTLV-III/LAV through use of cryoprecipitate has also been documented (*12*). Hemophiliacs in Europe also demonstrated serologic evidence of infection (*10, 13*).

In some developing countries such as Haiti and Zaire, the prevalence of HTLV-III/LAV antibody in adults ranged from 4 to 8 percent (*3, 14*). HTLV-III/LAV antibody was reported to have been found in 50 of 75 serum samples collected from healthy children in Uganda as early as 1972 and 1973 (*15*). Since AIDS has not been reported from Uganda, the interpretation of this finding is unclear.

In high-risk populations, infection with HTLV-III/LAV is considerably more common than AIDS. A retrospective analysis of 6,875 members of a hepatitis B study cohort in San Francisco showed that, by the time the first two cases of AIDS were diagnosed, 24 percent had antibody to HTLV-III/LAV (Table 2). In 1980, the ratio of seropositive persons to persons with AIDS was 825:1. In 1984, 68 percent of the men had

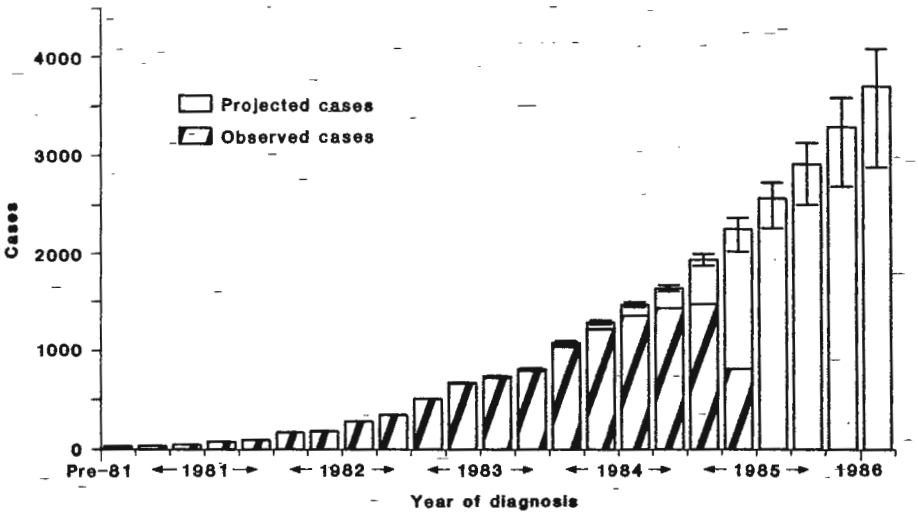

Fig. 1. Incidence of AIDS in the United States, by quarter of diagnosis projected from cases reported as of 30 June 1985. The AIDS cases in the United States reported to CDC as of 30 June 1985 (shaded bars) were used to project the number of cases expected to be diagnosed through the second quarter of 1986 (open bars). The projections were made in two stages. First, with the assumption that the distribution of delays between the actual diagnosis of AIDS and the report of these cases to CDC will remain constant over time, the cases reported each month were adjusted to obtain estimates of the cases actually diagnosed. The adjustment indicates that approximately 13,600 cases of AIDS were diagnosed as of 30 April 1985. Second, to project future cases to be diagnosed, a polynomial model was fitted to the adjusted case counts as transformed by the Box-Cox method (*4*). The transformation was used to obtain homoscedastic residuals suitable for calculating prediction intervals. The 95 percent confidence intervals for the first quarter of 1985 and before account for the expected variation in adjusting for reporting delays; the prediction intervals for the second quarter of 1985 and beyond account for the usual residual variance as well as that introduced by adjusting the case counts and applying the Box-Cox transformation. The model indicates that approximately 12,500 new AIDS cases will be diagnosed between 1 July 1985 and 30 June 1986, with a 95 percent prediction interval ranging from 10,000 to 14,000.

Table 2. Estimate of number of individuals with HTLV-III/LAV antibody and AIDS, 1978–1984 (from San Francisco CDC cohort study (n = 6875).

Variable	1978	1979	1980	1981	1982	1983	1984
Seropositive (%)	4	12	24	35*	46*	57*	68
Estimated number seropositive	275	825	1650	2406	3162	3919	4675
Cumulative number reported with AIDS	0	0	2	14	41	84	166

*Estimated.

antibody to HTLV-III/LAV, and over 2.4 percent had been diagnosed with AIDS, indicating that serologic evidence of infection was then 28 times more common than AIDS. The lag between virus infection and the occurrence of AIDS has prevented the community or high-risk population from recognizing the severity of the AIDS problem until a large number of individuals have been infected. We assume that the infection in most areas of the United States lags behind the 1984 HTLV-III infection-to-AIDS rates of the San Francisco cohort. If the infection-to-AIDS ratio is currently between 50:1 and 100:1, then it can be estimated that between 500,000 to 1,000,000 Americans have been infected with HTLV-III/LAV to date. The number of cases of AIDS projected to be diagnosed next year (Fig. 1) would then represent an annual attack rate of from 1 to 2 percent of those currently infected with the virus.

Persistence of infection with HTLV-III/LAV. Retrovirus infections in animals persist for prolonged periods, usually for life. HTLV-III/LAV infection in humans can also persist, at least for several years. The virus has been isolated months to years after the onset of symptoms from 85 percent or more of seropositive individuals with AIDS, lymphadenopathy, or other associated conditions (*3*). In investigations of cases of transfusion-associated AIDS, HTLV-III/LAV was isolated from specimens obtained from 22 of 23 seropositive blood donors an average of 28 months after the implicated donation (*16*). All but one of the high-risk blood donors were asymptomatic at the time of donation, and 15 of 22 remained asymptomatic when virus was isolated from 1 to 4 years later. In another study, HTLV-III/LAV was isolated from the blood of 8 of 12 homosexual men who had been asymptomatic and seropositive for 4 to 69 months. Low T-helper to T-suppressor ratios were most frequent in men who had been seropositive the longest (*17*). Because persistent infection with HTLV-III/LAV can be readily demonstrated in asymptomatic persons, the presence of specific antibody should be considered presumptive evidence of current infection and infectibility.

The spectrum of HTLV-III/LAV infection and AIDS. An acute mononucleosis-like illness characterized by fever, malaise, gastrointestinal symptoms, myalgia, sore throat, diarrhea, and generalized lymphadenopathy described in 11 homosexual men within days to weeks after exposure provides evidence of an acute clinical and immunologic response to infection with HTLV-III/LAV (*18*). In three of these individuals, seroconversion to HTLV-III/LAV occurred after onset of clinical and immunologic findings. These findings support the concept of an acute, transient, and generally nonspecific HTLV-III/LAV syndrome, but the time interval from infection to diagnosis of AIDS may be quite long. The median interval between receipt of blood transfusion and diagnosis of AIDS among cases reported to date is 29 months in adults and 14 months in infants (*2, 19*). However, this estimate is probably low since only cases with the shortest incubation times have been diagnosed. A recent study estimates the mean incubation period for transfusion-associated AIDS to be 4.5 years (*20*). In another study, among homosexual men developing AIDS, the average interval between seroconversion and diagnosis of AIDS exceeded 3 years (*21*).

In a representative sample of 474 homosexual men in the San Francisco cohort study, initially seen between 1978 and 1980 and enrolled in a follow-up study in 1984, AIDS had been diagnosed and reported in 2.7 percent. Another 25.8 percent had clinical signs or symptoms or laboratory evidence of AIDS-related conditions, particularly generalized lymphadenopathy (Table 3). Over 57 percent of those with no signs of illness were seropositive for HTLV-III/LAV (*21*). The estimated mean follow-up after seroconversion was just over 3 years, and approximately 3.6 percent of those with antibody have been diagnosed with AIDS.

The short-term prognosis is reported to be worse in persons who have AIDS-related conditions severe enough to require medical care. In these studies', from 6 to 20 percent of patients were diagnosed with AIDS during 2 years of follow-up (*22*). In one prospective study of generalized lymphadenopathy, patients were more likely to be subsequent-

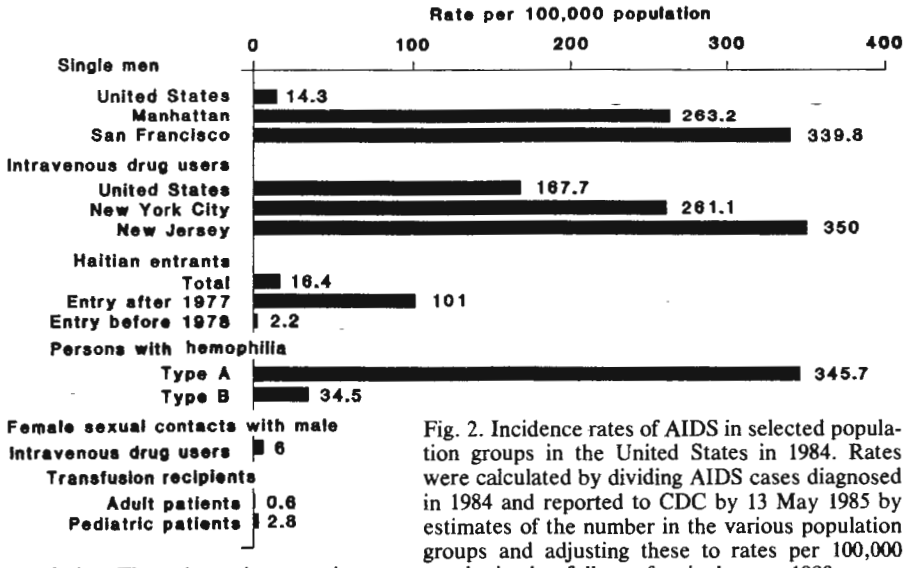

Fig. 2. Incidence rates of AIDS in selected population groups in the United States in 1984. Rates were calculated by dividing AIDS cases diagnosed in 1984 and reported to CDC by 13 May 1985 by estimates of the number in the various population groups and adjusting these to rates per 100,000 population. These denominator estimates were obtained as follows: for single men, 1980 census figures for single (never-married) men aged 15 years or older were used; estimates of intravenous drug users were provided by the National Institute on Drug Abuse, the New Jersey State Health Department, and the New York State Division of Substance Abuse Services; the figure for Haitian entrants includes legal immigrants, apprehended illegal entrants, and an estimate of undetected illegal entrants through 1984 as determined by the Immigration and Naturalization Services; an estimate of the number of persons with hemophilia was available from a survey done in 1976; the number of female partners of male intravenous drug users was assumed to be 80 percent of the total number of male intravenous drug users; for blood transfusion recipients, figures obtained from the American Blood Commission of blood recipients from 1978 to 1983 were adjusted to include only recipients who would survive long enough to develop clinically apparent AIDS (*8*).

ly diagnosed with AIDS if they initially had low T-helper cell counts, anemia, lymphopenia, and other symptoms in addition to the generalized lymphadenopathy (*22*).

Modes of Transmission

HTLV-III/LAV has been isolated from peripheral blood, semen, saliva, and tears (*23*). In most cases of AIDS in the United States, the virus appears to have been transmitted through one or more of four routes: sexual contact, intravenous drug administration with contaminated needles, administration of blood and blood products, and passage of the virus from infected mothers to their newborns. Several epidemiologic studies have identified specific behavioral risk factors for AIDS and HTLV-III/LAV infection in homosexual men (*22, 24*). An increased number of sexual partners was the most consistent risk factor associated with acquisition of infection or AIDS in homosexual men. In addition, receptive anal intercourse and other practices associated with rectal trauma often differentiated cases from controls in these studies. Heterosexual transmission of HTLV-III/LAV infection appeared to be most closely associated with being a steady heterosexual partner of a person with AIDS or of a seropositive individual in a risk group (*25*). Studies in Central Africa and the United States have also shown that sexual contact with prostitutes and large numbers of heterosexual partners are risk factors for AIDS in heterosexual men (*7, 26*).

Among intravenous drug users, the sharing of needles, presumably contaminated with infectious blood, has been implicated as a risk factor for AIDS and HTLV-III/LAV infection (*11*).

Transfusion-associated AIDS has been caused by receipt of a unit of whole blood or blood component from a donor infected with HTLV-III/LAV. Frequently the donor is asymptomatic. Patients who received blood components from large numbers of donors were more likely to be exposed. Blood components implicated in transmission include red cells, platelets, plasma, and whole blood (*2, 19*). HTLV-III/LAV infection has been transmitted to persons with hemophilia through pooled plasma products, specifically clotting factor concentrates. HTLV-III seroprevalence increases with severity of hemophilia and increased use of clotting factor (*12*). Recently, the use of cryoprecipitate has also been implicated in the transmission of HTLV-III/LAV (*2, 12*).

Table 3. Prevalence of AIDS, related conditions, and HTLV-III/LAV antibody in homosexual men, San Francisco Health Department/CDC cohort study, 1984 [adapted from Jaffe *et al.* (*17*)].

Condition*	Number of men (%)	Number of antibody-positive/ number tested (%)
AIDS	13 (2.7)	10/10 (100.0)
Generalized lymphadenopathy	98 (20.7)	82/89 (92.1)
Other signs or symptoms suggesting AIDS prodrome	14 (3.0)	11/14 (78.6)
Hematologic abnormalities	10 (2.1)	10/10 (100.0)
None of the above	339 (71.5)	180/312 (57.7)
Total	474 (100.0)	293/435 (67.4)

*If more than one condition was present, the participant was included only in the group listed first. Definitions for AIDS-related conditions were as follows. Generalized lymphadenopathy: palpable nodes of at least 1.0 cm diameter in two or more extrainguinal sites, not more than one of which was cervical. Other signs or symptoms suggesting AIDS prodrome: fever or diarrhea lasting at least 2 weeks or weight loss of at least 10 lbs in last 4 months; oral candidiasis on examination. Hematologic abnormalities: hematocrit <40.0, absolute lymphocyte count <1500 per cubic millimeter, or absolute neutrophil count <1200 per cubic millimeter.

Most infants with AIDS were born to mothers with AIDS or in high-risk groups. The occurrence of symptoms shortly after birth and the absence of cases in older children suggests transmission in utero, or during or shortly after birth (*27*). Recently, HTLV-III/LAV seroconversion was described in an infant of a mother who had acquired HTLV-III/LAV infection postnatally from a blood transfusion. It has been hypothesized that transmission occurred from the mother to the infant as a result of breast-feeding or other close mother-to-infant contact (*28*).

Epidemiologic studies of AIDS suggest that heterosexual transmission accounts for a larger proportion of cases in developing countries, although homosexual transmission, transmission through blood transfusion, and from infected mothers to newborns have also been reported. The association of HTLV-III/LAV infection with the number of injections received for therapeutic and nontherapeutic purposes in some developing countries suggests that reuse of nonsterile needles may contribute to transmission (*14, 29*).

Of the 10,533 cases of AIDS reported by 24 May 1985, 371 (3.5 percent) were in health-care workers. All but 31 (8.4 percent) of these health-care workers belonged to known AIDS risk groups. In the completed investigations of cases outside risk groups, no specific occupational exposures could be documented. Five hundred and twelve health-care workers have been enrolled in a prospective evaluation of persons exposed by a parenteral or mucous membrane route to blood or body fluids from patients with AIDS or symptoms suggestive of AIDS. Serologic testing for HTLV-III/LAV has been completed for 105, 82 percent of whom had parenteral exposure from needlesticks or cuts from sharp instruments. None of the 105 participants demonstrated seroconversion to HTLV-III/LAV after an average 8-month follow-up (*30*). In another study, none of 85 employees with nosocomial exposure seroconverted to HTLV-III/LAV, including 32 individuals who encountered needlestick accidents or other parenteral exposures to blood (*31*). A recent report, however, describes a nurse in England who developed confirmed HTLV-III/LAV antibody following a needlestick injury and exposure to the blood of an AIDS patient. This seroconversion occurred 27 to 45 days after exposure and was accompanied by lymphadenopathy and fever, consistent with the acute symptoms described with HTLV-III/LAV (*32*). From the data available, the risk of HTLV-III/LAV infection to health-care and laboratory workers appears to be small, even following parenteral exposure to blood from patients with AIDS. However, these workers should continue to follow precautions when caring for persons with definite or suspected AIDS or with serologic or epidemiologic evidence of infection and when handling specimens from these patients. Summaries of these precautions have been published (*33*). There is no evidence of transmission of HTLV-III/LAV infection from health-care workers to individuals under their care.

Although concern has been expressed that HTLV-III/LAV might be present in hepatitis B vaccine, there is now considerable evidence concerning the safety of this vaccine in regard to HTLV-III/LAV transmission. Epidemiologic studies have not detected an association between vaccine and AIDS in cases of AIDS reported to the Centers for Disease Control and in members of AIDS risk groups who received hepatitis B vaccine. Further, several of the inactivation steps used in the manufacture of the U.S.-licensed hepatitis B vaccine have been shown to reduce HTLV-III/LAV virus to undetectable levels in vitro (*34*).

Similarly, no cases of AIDS or HTLV-III/LAV infection have been attributed to the use of immunoglobulins. These

pooled products undergo fractionation with ethyl alcohol, which has been shown to inactive HTLV-III/LAV in vitro (*35*). Although high levels of antibody to HTLV-III/LAV were detected in commercial hepatitis B immunoglobulin, there was no evidence of HTLV-III/LAV transmission from this product. In 19 recipients of 31 doses of HBIG containing antibody to HTLV-III/LAV, low levels of passively acquired antibody were detected shortly after injection, but the reactivity did not persist. Six months after the immunoglobulin injection, all patients were seronegative to HTLV-III/LAV and remained clinically well (*36*).

After 4 years of close observation of AIDS in the United States, there has been no evidence of transmission of HTLV-III/LAV infection or AIDS through food, by arthropods, or from casual contact.

Determinants of Outcome Among Individuals with HTLV-III/LAV

Most individuals infected with HTLV-III/LAV do not develop AIDS within the first few years. Whether or how cofactors or host susceptibility factors increase the risk of AIDS in infected persons is unknown. The higher rate of transfusion-associated AIDS in infants suggests that infection in the perinatal period may be especially virulent, perhaps because of the immaturity of the neonatal immune system. Whether other factors that suppress the immune system, such as medical use of steroids or antineoplastic agents, other coexisting immunosuppressant diseases, severe protein-calorie malnutrition, or even old age, may increase the risk of AIDS in persons infected with HTLV-III/LAV is unknown. The occurrence of AIDS in previously healthy young persons from all risk groups, however, suggests that, while such cofactors may modify the course of infection, they are not likely to be essential for AIDS to develop in an individual infected with HTLV-III/LAV.

The rates of individual opportunistic diseases occurring in AIDS patients vary by risk groups. Tuberculosis has been reported more frequently in users of intravenous drugs and patients from developing countries, cryptococcal meningitis is more common in Africans with AIDS, and disseminated toxoplasmosis occurs in proportionately more cases among persons born in Haiti (*29, 37*).

More puzzling are the differential rates of Kaposi's sarcoma (KS). In the United States, KS has been reported in over 34 percent of homosexual men with AIDS, but only 6 percent of patients in all other groups. Both classic KS as well as KS in AIDS have been associated with the presence of the HLA DR5 haplotype (*38*), but this association cannot explain the excess occurrence in homosexual men compared with other groups with AIDS. An increased frequency of use of nitrite inhalants has been reported in homosexual men with KS compared to homosexual men with other manifestations of AIDS or with asymptomatic HTLV-III/LAV infection (*39*). In addition, cytomegalovirus (CMV) infection has been associated with classic KS, and there is a high frequency of CMV infection in homosexual men with and without AIDS (*40, 41*). Both CMV and the use of nitrite inhalants deserve further attention as possible cofactors for KS in persons with HTLV-III/LAV infection.

Prospects for Prevention and Control

Substantial progress has been made in prevention of HTLV-III/LAV transmission through blood and blood products. In March 1983, the U.S. Public Health Service advised that members of high risk groups for AIDS voluntarily refrain from donating blood (*41*). The Food and Drug Administration (FDA) also published guidelines to that effect for blood and plasma centers in the United States. Serologic tests for antibody to HTLV-III/LAV were licensed in March 1985 and are currently being used to screen blood and plasma donations in virtually every center in the United States. Preliminary results reported by the FDA show repeatable enzyme-linked immunosorbent assay (ELISA) reactivity in 0.25 percent of the first 1,100,000 units of donated blood tested (*42*). The low prevalence of repeatable ELISA reactivity is consistent with a low level of infectivity among current blood and plasma donors and indicates that discarding these units will decrease the risk of virus transmission and have minimal effect on blood supplies. The interpretation of positivity in the ELISA and the effect of notification of blood donors are currently under study.

HTLV-III/LAV is sensitive to heat in vitro (*35, 43*). Heat-treated clotting factor concentrates have been developed and are commercially available. The National Hemophilia Foundation has recommended that all patients with hemophilia be treated with these products. Preliminary follow-up studies of seronegative hemophiliacs suggest that these products do not transmit HTLV-III/LAV infection. Screening donated blood and plasma for HTLV-III/LAV and using safer clotting factor concentrates should greatly reduce transmission of HTLV-III/LAV through blood and blood products in the future. Because of the long incubation period of AIDS, however, cases in hemophiliacs and recipients of blood transfusions will continue to be reported in those who have been already infected.

In March 1983, the Public Health Service recommended that members of high-risk groups reduce the number of their sexual partners to avoid acquiring or transmitting the infection causing AIDS (*41*). Surveys confirm a substantial reduction in the average number of reported sexual partners in homosexual men during the past 2 years. During this time the number of reported sexually transmitted infections in homosexual men was greatly reduced (*44*). Cases of rectal gonorrhea in men attending the San Francisco city health department clinics declined 73 percent between 1980 and 1984. Undoubtedly this trend reflects a major change in behavior leading to transmission of sexually transmitted infections. While cases of rectal gonorrhea declined by 73 percent, the prevalence of antibody to HTLV-III/LAV in homosexual men increased 280 percent in the hepatitis B study cohort previously described. Thus, the risk of exposure to HTLV-III/LAV for homosexual men may be greater now than it was in the early 1980's despite substantial behavior changes. To be safe from risk of exposure to HTLV-III/LAV infection, persons should avoid any sexual activity that involves the exchange of body fluids, such as semen, with an individual who is known or suspected to be infected. When the prevalence of any sexually transmitted infection is high in a population, as is true with HTLV-III/LAV in homosexual men, any sexual contact with an individual whose infection status is unknown should be considered high risk. For uninfected individuals likely to continue sexual exposure to HTLV-III/LAV, such preventive measures as condoms, diaphragms, or spermicides offer some theoretical protection, but their efficacy is unproved. With other sexually transmitted infections, these measures reduce but do not eliminate the risk of infection.

The risk of HTLV-III/LAV infection and of AIDS in infants born to infected mothers is substantial but has not yet been quantified. The Public Health Service has recommended that women with clinical, epidemiologic, or serologic evidence of infection with HTLV-III/LAV should postpone or avoid pregnancy to

prevent transmission to the fetus or newborn (*45*). Women who may have been exposed should have a serologic test for HTLV-III/LAV before considering pregnancy. Premarital and prenatal screening for antibody to HTLV-III/LAV should be seriously considered by physicians or clinics providing care for women in populations with increased risk of infection, such as intravenous drug users.

Individuals with clinical, epidemiologic, or serologic evidence of infection with HTLV-III/LAV should avoid transmission to others through sexual intercourse and sharing needles and should refrain from donating blood, plasma, body organs, other tissues, or sperm (*45*). In addition, donors of organs, tissue, or sperm should be serologically tested for HTLV-III/LAV to prevent transmission (*46*).

The Future

Future strategies for preventing HTLV-III/LAV infection will involve vaccine or specific antiviral therapy, should either or both become available. Currently, preventing HTLV-III/LAV infections depends upon education and counselling to prevent sexual transmission and transmission among intravenous drug users and from infected mothers to newborns. Prevention efforts begin with providing up-to-date, accurate information and sound recommendations to individuals on how to prevent transmission. Community prevention programs must proceed now, before definitive evidence of their effectiveness is available. They should be evaluated according to their ability to prevent HTLV-III/LAV infection as well as to influence behavior. To maximize efficiency and chance for success, prevention efforts of public health agencies and community groups should be coordinated.

In the absence of vaccine or therapy, the incidence of AIDS in the United States is likely to increase during the next few years. Since HTLV-III/LAV infection has wide-ranging effects on the immune system, infection may affect the course and prognosis of other diseases; knowledge of HTLV-III/LAV infection status will become increasingly important for the management of many medical disorders. More widespread use of the serologic test will make apparent the need for carefully considered policies for safe and equitable handling of infected persons in day-care centers, schools, prisons, and chronic care institutions (*47*). Concerns about confidentiality will threaten to jeopardize research and public health control efforts unless they are adequately and credibly addressed.

It is unlikely that casual contact will play a significant role in transmission of HTLV-III/LAV infection. Current modes of transmission will remain stable, and sexual transmission of the virus will account for the vast majority of cases in the United States for many years to come. Homosexual men and persons who abuse intravenously administered drugs will remain at extraordinary risk for AIDS; the disease will probably become the major cause of death in these populations.

During the past 4 years, research has resulted in an understanding of the etiology and pathogenesis of AIDS and the modes of transmission of the virus causing it. A continued commitment to research is needed to develop a vaccine and therapy and to further understand the natural history of HTLV-III/LAV infection. Control of AIDS and HTLV-III/LAV infection cannot await the benefits of future research. There is an urgent need for community groups and health professionals to work together and utilize the tools available to prevent AIDS and care for its victims.

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NEWT GINGRICH
SIXTH DISTRICT, GEORGIA

COMMITTEES:
PUBLIC WORKS AND TRANSPORTATION
HOUSE ADMINISTRATION

WASHINGTON OFFICE:
1005 LONGWORTH HOUSE OFFICE BLDG.
WASHINGTON, DC 20515
(202) 225-4501

Congress of the United States

House of Representatives

October 10, 1985

6351 JONESBORO ROAD
SUITE E
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22 EAST BROAD STREET
NEWNAN, GA 30263
(404) 253-8355

Dr. James Mason
Assistant Sec. for Health
Public Health Service
200 Independence Ave., S.W.
Washington D.C., 20201

Dear Jim:

After participating in two meetings (one with yourself and one with Dr. Don Hopkins of CDC) on the federal government's current reactions to and programs for AIDS, please let me make the following observations.

As a historian I am very concerned that your calm confidence is a very large gamble. Peter Drucker cautions that the best way to measure the importance of a decision is the cost of reversing it. In this case, if you are right and medical science is able to develop a vaccine within a reasonable time, then we have no real concerns. On the other hand, if you are wrong, and medical science fails to discover a vaccine before the disease spreads, we are in real trouble. Therefore, the historically wisest public health policy would be maximum containment with maximum speed of all AIDS carriers and victims until we are able to relax.

In short, where the best of all worlds is

1) Containment of the virus
2) Discovery of a vaccine
3) Public relaxation because the problem is contained

You are in effect asking us to:

1) Have public relaxation because we trust your judgment,
2) To gradually contain the disease and,
3) To eventually find a vaccine

I would suggest to you that the public's intuitive fear is a more accurate response than the current public health policy.

If you are wrong and AIDS does break loose, it could become the most serious threat to life in America since the Civil War. Therefore, our potential efforts to contain the disease should be comparable to the risk. The public would rather be frightened prematurely and take too many steps than suffer a rising loss of life because of a lack of information and inactivity. In that sense, the lesson of the Swine Flu effort of the 1970's, where haste may have made waste, is a less serious punishment than will occur if the absence of haste leads to massive loss of life. Therefore,

Recd 10/17/85

1) You should assemble a very small brainstorming team to design an epidemic prevention plan aimed at isolating and containing AIDS by April 1, or at the latest June 1 of 1986.

2) Your efforts should rely heavily on the mass media for information expansion rather than on specialized sources. You should be willing to be as blunt and direct with the public as a good family doctor would be in private. The public will respect doctors telling them the truth in a tough way and will not tolerate doctors who fail to tell them the truth.

3) You should take this opportunity to radically reduce the bureaucracy of drug-approval. Experimental drugs should go into testing as rapidly as scientific rather than bureaucratic procedures permit. Everyone who is not part of a pool for scientific tests, should have access to any drug, including placebos, which people with a terminal illness would be willing to take the risk of using. Otherwise, there will be enormous public relations consequences resulting from dying people having to go to Mexico or France in order to get these drugs. This is a major opportunity to begin to reduce the FDA's over-regulation of the drug industry.

4) Your task is to maximize public understanding of medical necessities, not to temper your medical advice with political problems. It is the politicians who have the obligation to worry about the politics of this issue. For example, in order to absolutely isolate AIDS carriers, it may be necessary to have a national blood test and issue a plastic card indicating whether you tested positively. We would far rather have you advise us of that requirement and let us debate whether or not the crisis is that great, than to have you tell us later we could have sealed AIDS off, but we knew it was impossible to get that kind of national effort.

I look forward to meeting with you again. My final observation is that the national news media is beginning to sense this is a real issue of human survival, and the pressure on you to act will become greater as the amount of patience for reassuring comments becomes smaller.

Thank you for your time.

Sincerely,

Newt

Newt Gingrich

NG/jss

cc: Hon. William Dannemeyer
Hon. Robert Dornan
Hon. Robert Walker

bcc DON EBERLY

October 4, 1985 • Vol. 16, No. 40

75¢ Outside of D.C./Baltimore Areas

The Washington Blade

THE GAY WEEKLY OF THE NATION'S CAPITAL

Hudson: 'He has not died in vain.'

by Lisa M. Keen

Actor Rock Hudson died of AIDS Wednesday at noon east coast time in his Beverly Hills home. He was 59.

Hudson's public announcement in July that he was suffering from AIDS triggered a wave of intense public attention on the epidemic, which has primarily affected Gay men. Although Hudson never spoke about his sexual orientation in public, associates reported following the July announcement that he was Gay.

Hudson's acknowledgement also triggered a number of major AIDS benefits, most notably the September 19 event in Los Angeles, which raised a reported $1 million for AIDS research and services. Although Hudson was not able to attend the event, he donated $250,000 and sent a letter which was read to the audience saying that if the news of his having AIDS "is helping others, I can at least know that my own misfortune has had some positive worth."

Contrary to reports yesterday that no a spokeswoman with the mortuary arranging for disposition of Hudson's remains said late yesterday that plans had been made to have his ashes "scattered at sea." The New York Post reported yesterday that Hudson had left elaborate plans for a ceremony off the Catalina Island coast. According to the Post article, Hudson asked that 50 of his closest friends enjoy champagne, caviar, and music on board a yacht, that they scatter his ashes into the Pacific Ocean, and that two of his friends, Elizabeth Taylor and Roddy McDowell, deliver brief eulogies.

Bill Misenhimer, executive director of the newly established American Foundation for AIDS Research which has established a Rock Hudson AIDS Foundation, said late yesterday that a private service has been planned for "family and friends," but that no other details were known and that he knew of no other memorial services planned. A spokeswoman for Hudson's publicist Dale Olson, meanwhile, said that so many "conflicting stories" were being

photo courtesy of Amer. Film Inst.

House action 'restates' what's on the books

by Lou Chibbaro Jr.

Gay bathhouses became a surprise subject of debate on the foor of the U.S. House of Representatives Wednesday as House members approved by a vote of 417 to 8 an amendment which some claim would empower the U.S. surgeon general to close public baths.

Pro-Gay members of the House, in what they said was a tactical move, threw their support behind the amendment, claiming it merely restates powers that the surgeon general and the Public Health Service already have based on existing legislation.

The amendment was introduced by Rep. Robert K. Dornan (R-Calif.), a supporter of New Right causes, who called his measure a "tiny, small step" to help people who are "unable or unwilling to help themselves."

But Rep. Ted Weiss (D-N.Y.), a long-time Gay rights supporter, called the

[require reconstructive surgery] VanMeter said.

Koenrich, who was at the Lone Star at the time of the incident, said he and another bar employee hailed a police officer seconds after VanMeter had been assaulted. Koenrich said Officer A.C. Lester chased Still along 9th Street and subdued him with a "flying tackle."

Still was arrested and taken into custody, according to records obtained from the D.C. Superior Court. But the next morning, according to the records, the U.S. Attorney's office "no papered" the case, a term used to describe a decision not to prosecute.

Repeated calls placed this week to Randolph Teslik, the assistant U.S. Attorney in charge of the intake of new cases, and to U.S. Attorney Joseph DiGenova, were still not answered by Blade deadline time.

According to Stiftar, Officer Lester urged been vigilant in pursuing such cases while others have shown carelessness and insensitivity toward Gay crime victims.

Koenrich, who serves as the Gay community's liaison to a citizen advisory committee to Police Chief Maurice Turner, called the decision not to prosecute Still an "outrage" and said he will seek assistance from local attorneys to investigate the case.

VanMeter, meanwhile, said his doctor told him the configuration of his facial fractures indicates that Still must have had a metal object in or on his hand when he struck VanMeter.

"The injury was too severe to have come from just a fist," said VanMeter, who just recently returned to work.

"What bothers me," said VanMeter, "is that this guy was out to deliberately and maliciously hurt a Gay person. What happens if he uses a knife the next time?"

—Lou Chibbaro Jr.

N.Y. to DOD on tests: No!

New York State has defied the Pentagon's request to screen blood samples of new military recruits in the region for the AIDS virus antibody, reports Newsday.

The state health department is refusing to perform the test and will not license private labs to do it for the Defense Department.

"We disagree with the concept of screening and are not facilitating such testing," said a health department spokeswoman.

Although the U.S. Food and Drug Administration has licensed the test only for screening the nation's blood supply, the Defense Department wants to begin testing more than 25,000 recruits beginning October 15. Among other reasons, it maintains that emergency blood transfusions from one soldier to another might be necessary on the battlefield. The state's refusal to cooperate may impede the new testing program.

The test indicates past exposure to the HTLV-III virus, believed to cause AIDS, but it does not determine who will develop AIDS. Officials at the Military Enlistment Processing Command in Albany declined to comment on the policy last week. Rep. Ted Weiss (D-N.Y.), who supports the state's decision, was quoted in Newsday as saying, "the FDA has authorized this test only for the purpose of screening blood, not for screening people. The Pentagon has no medical or scientific basis for screening military personnel."

—Peg Byron

CENTERS FOR DISEASE CONTROL

MMWR

MORBIDITY AND MORTALITY WEEKLY REPORT

September 27, 1985 / Vol. 34 / No. 38

Epidemiologic Notes and Reports

Update: Evaluation of Human T-Lymphotropic Virus Type III/ Lymphadenopathy-Associated Virus Infection in Health-Care Personnel — United States

The occurrence of the acquired immunodeficiency syndrome (AIDS) in intravenous (IV) drug users, blood transfusion recipients, and persons with hemophilia indicates that parenteral transmission of human T-lymphotropic virus type III/lymphadenopathy-associated virus (HTLV-III/LAV) occurs via infectious blood or blood products (*1*). Currently available practices have nearly eliminated these risks for transfusion recipients and persons with hemophilia (*2,3*). Because health-care personnel may be inadvertently exposed to the blood of AIDS patients, several studies have been conducted to determine the prevalence of HTLV-III/LAV antibodies in health-care personnel who have cared for these patients (*4-10*). Combining published results with data reported to CDC shows that, to date, 1,758 health-care workers participating in such studies have been tested for antibodies to HTLV-III. Twenty-six (1.5%) were seropositive, and all but three of these persons belonged to groups recognized to be at increased risk for AIDS. Epidemiologic information is not available for one of these three health-care workers who was tested anonymously. Because of the high level of interest in these studies and in the potential for occupational transmission of HTLV-III/LAV through parenteral and mucosal routes, the case histories for these two health-care workers are reported below.

Patient 1. A female health-care worker was tested for serum antibodies to HTLV-III in November 1984 as part of a study of hospital personnel. She had sustained accidental needlestick injuries in November 1983 and March 1984 (12 months and 8 months before) while drawing blood from patients with AIDS . At the time of enrollment in the study, serum antibodies to HTLV-III were detected by enzyme immunoassay (EIA) and Western blot techniques. No serum obtained before or within 12 months after the needlesticks was available for testing. She was in good health until June 1984, when she developed mild but persistent lymphadenopathy, most marked in the axilla. Beginning in August 1984, she experienced intermittent diarrhea. When interviewed by a physician, the patient denied IV drug use or blood transfusions and reported being heterosexually monogamous since 1981. Her long-term sex partner denied homosexual activity, IV drug use, or other known risk factors when interviewed separately. Although repeatedly antibody negative by EIA and Western blot methods over an 8-month period, HTLV-III was recovered from his peripheral lymphocytes in April 1985 but could not be recovered from lymphocytes obtained several months later.

Patient 2. A male laboratory worker was discovered to be lymphopenic after he volunteered to be tested in conjunction with a study in April 1985. At that time, he had serum antibodies to HTLV-III by EIA and Western blot methods. No previous blood samples were available for testing. As part of his job, he processed platelets pooled from individual donors for transfusion. In December 1983, he sustained an accidental cut on the hand while processing blood from a patient with leukemia. He also sustained an accidental needlestick injury in August 1984 while processing a unit of pooled platelets. Both incidents resulted in parenteral exposure to blood from other persons. It is not known whether any of the individual platelet donors or the patient with leukemia had HTLV-III infection. The health-care worker is asymptomatic, although he had transient cervical lymphadenopathy during early 1985. HTLV-III was recovered from his peripheral blood lymphocytes in September 1985. During three independent interviews, he denied any homosexual activity, IV drug use, foreign travel, or blood transfusions. He described himself as heterosexual and was not aware that any of his approximately 12 lifetime sex partners had AIDS or were at increased risk for HTLV-III/LAV infection.

Reported by J Nadler, MD, S Landesman, MD, D Rechtman, MD, S Holman, MS, New York City, New York; J Groopman, MD, Boston, G Seage, MPH, Boston Dept of Health and Hospitals, G Grady, MD, Massachusetts Dept of Health; J Gerberding, MD, San Francisco, California; Environmental Epidemiology Br, Laboratory of Tumor Cell Biology, National Cancer Institute, National Institutes of Health; Hospital Infections Program, AIDS Br, Div of Viral Diseases, Center for Infectious Diseases, CDC.

Editorial Note: These two health-care workers probably represent occupational transmission of HTLV-III/LAV due to parenteral exposure, although in neither was a preexposure serum sample available to date the onset of infection. Although not reported during investigations of these two cases, it is difficult to totally assure that additional risk factors for AIDS were absent. For purposes of epidemiologic surveillance, a case of occupationally acquired HTLV-III/LAV infection should ideally include all the following features: a worker with no identifiable risk factors for AIDS whose serum, obtained within several days of the date of a possible occupational exposure, is negative for antibody to HTLV-III/LAV but whose follow-up serum, in absence of interim exposure to other risk factors, is positive for antibody to HTLV-III/LAV. The two cases reported here do not fully meet these ideal criteria. However, there is one published report from England of a nurse who developed HTLV-III/LAV antibody following an accidental needlestick injury (*11*). Her serum was negative for antibody to HTLV-III/LAV at the time of exposure. This nurse reportedly had none of the recognized risk factors for AIDS and was asymptomatic at the time the report was published.

The two cases reported here represent the only known evidence of probable occupational transmission of HTLV-III/LAV in the United States. This confirms that the risk of transmission of HTLV-III/LAV infection to health-care workers from patients is extremely low (*4-10*). HTLV-III/LAV infections appear to be much less transmissible through needlesticks than hepatitis B; nearly 26% of persons comparably exposed to a hepatitis B surface antigen-positive patient develop infection (*12*). Nonetheless, personnel should follow recommendations designed to minimize the risk of exposure to parenteral or mucosal (e.g., blood spatter on conjunctiva) contact with potentially infectious materials from patients with AIDS or suspected AIDS (*13,14*).

Epidemiologic studies of needlestick injuries in hospital personnel indicate that over 40% of the accidents are potentially preventable if recommended precautions are followed when handling used needles or other sharp objects (*6*). Educational programs to familiarize health-care workers with the basic practices in infection control are essential to the prevention of AIDS and other infections. Health-care workers and others should become familiar with and follow recommended precautions when handling specimens, secretions, and excretions from persons known to be infected with HTLV-III/LAV. Health-care personnel whose serum is positive for HTLV-III/LAV antibody should follow the precautions that have been published for health-care workers with AIDS (*15*).

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MORBIDITY AND MORTALITY WEEKLY REPORT

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Current Trends

Education and Foster Care of Children Infected with Human T-Lymphotropic Virus Type III/ Lymphadenopathy-Associated Virus

The information and recommendations contained in this document were developed and compiled by CDC in consultation with individuals appointed by their organizations to represent the Conference of State and Territorial Epidemiologists, the Association of State and Territorial Health Officers, the National Association of County Health Officers, the Division of Maternal and Child Health (Health Resources and Services Administration), the National Association for Elementary School Principals, the National Association of State School Nurse Consultants, the National Congress of Parents and Teachers, and the Children's Aid Society. The consultants included the mother of a child with acquired immunodeficiency syndrome (AIDS), a legal advisor to a state education department, and several pediatricians who are experts in the field of pediatric AIDS. This document is made available to assist state and local health and education departments in developing guidelines for their particular situations and locations.

These recommendations apply to all children known to be infected with human T-lymphotropic virus type III/lymphadenopathy-associated virus (HTLV-III/LAV). This includes children with AIDS as defined for reporting purposes (Table 1); children who are diagnosed by their physicians as having an illness due to infection with HTLV-III/LAV but who do not meet the case definition; and children who are asymptomatic but have virologic or serologic evidence of infection with HTLV-III/LAV. These recommendations do not apply to siblings of infected children unless they are also infected.

BACKGROUND

The Scope of the Problem. As of August 20, 1985, 183 of the 12,599 reported cases of AIDS in the United States were among children under 18 years of age. This number is expected to double in the next year. Children with AIDS have been reported from 23 states, the District of Columbia, and Puerto Rico, with 75% residing in New York, California, Florida, and New Jersey.

The 183 AIDS patients reported to CDC represent only the most severe form of HTLV-III/LAV infection, i.e., those children who develop opportunistic infections or malignancies (Table 1). As in adults with HTLV-III/LAV infection, many infected children may have milder illness or may be asymptomatic.

Legal Issues. Among the legal issues to be considered in forming guidelines for the education and foster care of HTLV-III/LAV-infected children are the civil rights aspects of public

TABLE 1. Provisional case definition for acquired immunodeficiency syndrome (AIDS) surveillance of children

For the limited purposes of epidemiologic surveillance, CDC defines a case of pediatric acquired immunodeficiency syndrome (AIDS) as a child who has had:

1. A reliably diagnosed disease at least moderately indicative of underlying cellular immunodeficiency, and
2. No known cause of underlying cellular immunodeficiency or any other reduced resistance reported to be associated with that disease.

The diseases accepted as sufficiently indicative of underlying cellular immunodeficiency are the same as those used in defining AIDS in adults. In the absence of these opportunistic diseases, a histologically confirmed diagnosis of chronic lymphoid interstitial pneumonitis will be considered indicative of AIDS unless test(s) for HTLV-III/LAV are negative. Congenital infections, e.g., toxoplasmosis or herpes simplex virus infection in the first month after birth or cytomegalovirus infection in the first 6 months after birth must be excluded.

Specific conditions that must be excluded in a child are:

1. Primary immunodeficiency diseases—severe combined immunodeficiency, DiGeorge syndrome, Wiskott-Aldrich syndrome, ataxia-telangiectasia, graft versus host disease, neutropenia, neutrophil function abnormality, agammaglobulinemia, or hypogammaglobulinemia with raised IgM.
2. Secondary immunodeficiency associated with immunosuppressive therapy, lymphoreticular malignancy, or starvation.

school attendance, the protections for handicapped children under 20 U.S.C. 1401 et seq. and 29 U.S.C. 794, the confidentiality of a student's school record under state laws and under 20 U.S.C. 1232g, and employee right-to-know statutes for public employees in some states.

Confidentiality Issues. The diagnosis of AIDS or associated illnesses evokes much fear from others in contact with the patient and may evoke suspicion of life styles that may not be acceptable to some persons. Parents of HTLV-III/LAV-infected children should be aware of the potential for social isolation should the child's condition become known to others in the care or educational setting. School, day-care, and social service personnel and others involved in educating and caring for these children should be sensitive to the need for confidentiality and the right to privacy in these cases.

ASSESSMENT OF RISKS

Risk Factors for Acquiring HTLV-III/LAV Infection and Transmission. In adults and adolescents, HLTV-III/LAV is transmitted primarily through sexual contact (homosexual or heterosexual) and through parenteral exposure to infected blood or blood products. HTLV-III/LAV has been isolated from blood, semen, saliva, and tears but transmission has not been documented from saliva and tears. Adults at increased risk for acquiring HTLV-III/LAV include homosexual/bisexual men, intravenous drug abusers, persons transfused with contaminated blood or blood products, and sexual contacts of persons with HTLV-III/LAV infection or in groups at increased risk for infection.

The majority of infected children acquire the virus from their infected mothers in the perinatal period (*1-4*). In utero or intrapartum transmission are likely, and one child reported from Australia apparently acquired the virus postnatally, possibly from ingestion of breast milk (*5*). Children may also become infected through transfusion of blood or blood products that contain the virus. Seventy percent of the pediatric cases reported to CDC occurred among children whose parent had AIDS or was a member of a group at increased risk of acquiring HTLV-III/LAV infection, 20% of the cases occurred among children who had received blood or blood products, and for 10%, investigations are incomplete.

Risk of Transmission in the School, Day-Care or Foster-Care Setting. None of the identified cases of HTLV-III/LAV infection in the United States are known to have been transmitted in the school, day-care, or foster-care setting or through other casual person-to-person contact. Other than the sexual partners of HTLV-III/LAV-infected patients and infants born to infected mothers, none of the family members of the over 12,000 AIDS patients reported to CDC have been reported to have AIDS. Six studies of family members of patients with HTLV-III/LAV infection have failed to demonstrate HTLV-III/LAV transmission to adults who were not sexual contacts of the infected patients or to older children who were not likely at risk from perinatal transmission (*6-11*).

Based on current evidence, casual person-to-person contact as would occur among schoolchildren appears to pose no risk. However, studies of the risk of transmission through contact between younger children and neurologically handicapped children who lack control of their body secretions are very limited. Based on experience with other communicable diseases, a theoretical potential for transmission would be greatest among these children. It should be emphasized that any theoretical transmission would most likely involve exposure of open skin lesions or mucous membranes to blood and possibly other body fluids of an infected person.

Risks to the Child with HTLV-III/LAV Infection. HTLV-III/LAV infection may result in immunodeficiency. Such children may have a greater risk of encountering infectious agents in a school or day-care setting than at home. Foster homes with multiple children may also increase the risk. In addition, younger children and neurologically handicapped children who may display behaviors such as mouthing of toys would be expected to be at greater risk for acquiring infections. Immunodepressed children are also at greater risk of suffering severe complications from such infections as chickenpox, cytomegalovirus, tuberculosis, herpes simplex, and measles. Assessment of the risk to the immunodepressed child is best made by the child's physician who is aware of the child's immune status. The risk of acquiring some infections, such as chickenpox, may be reduced by prompt use of specific immune globulin following a known exposure.

RECOMMENDATIONS

1. Decisions regarding the type of educational and care setting for HTLV-III/LAV-infected children should be based on the behavior, neurologic development, and physical condition of the child and the expected type of interaction with others in that setting. These decisions are best made using the team approach including the child's physician, public health personnel, the child's parent or guardian, and personnel associated with the proposed care or educational setting. In each case, risks and benefits to both the infected child and to others in the setting should be weighed.

2. For most infected school-aged children, the benefits of an unrestricted setting would outweigh the risks of their acquiring potentially harmful infections in the setting and the apparent nonexistent risk of transmission of HTLV-III/LAV. These children should be allowed to attend school and after-school day-care and to be placed in a foster home in an unrestricted setting.
3. For the infected preschool-aged child and for some neurologically handicapped children who lack control of their body secretions or who display behavior, such as biting, and those children who have uncoverable, oozing lesions, a more restricted environment is advisable until more is known about transmission in these settings. Children infected with HTLV-III/LAV should be cared for and educated in settings that minimize exposure of other children to blood or body fluids.
4. Care involving exposure to the infected child's body fluids and excrement, such as feeding and diaper changing, should be performed by persons who are aware of the child's HTLV-III/LAV infection and the modes of possible transmission. In any setting involving an HTLV-III/LAV-infected person, good handwashing after exposure to blood and body fluids and before caring for another child should be observed, and gloves should be worn if open lesions are present on the caretaker's hands. Any open lesions on the infected person should also be covered.
5. Because other infections in addition to HTLV-III/LAV can be present in blood or body fluids, all schools and day-care facilities, regardless of whether children with HTLV-III/LAV infection are attending, should adopt routine procedures for handling blood or body fluids. Soiled surfaces should be promptly cleaned with disinfectants, such as household bleach (diluted 1 part bleach to 10 parts water). Disposable towels or tissues should be used whenever possible, and mops should be rinsed in the disinfectant. Those who are cleaning should avoid exposure of open skin lesions or mucous membranes to the blood or body fluids.
6. The hygienic practices of children with HTLV-III/LAV infection may improve as the child matures. Alternatively, the hygienic practices may deteriorate if the child's condition worsens. Evaluation to assess the need for a restricted environment should be performed regularly.
7. Physicians caring for children born to mothers with AIDS or at increased risk of acquiring HTLV-III/LAV infection should consider testing the children for evidence of HTLV-III/LAV infection for medical reasons. For example, vaccination of infected children with live virus vaccines, such as the measles-mumps-rubella vaccine (MMR), may be hazardous. These children also need to be followed closely for problems with growth and development and given prompt and aggressive therapy for infections and exposure to potentially lethal infections, such as varicella. In the event that an antiviral agent or other therapy for HTLV-III/LAV infection becomes available, these children should be considered for such therapy. Knowledge that a child is infected will allow parents and other caretakers to take precautions when exposed to the blood and body fluids of the child.
8. Adoption and foster-care agencies should consider adding HTLV-III/LAV screening to their routine medical evaluations of children at increased risk of infection before placement in the foster or adoptive home, since these parents must make decisions regarding the medical care of the child and must consider the possible social and psychological effects on their families.
9. Mandatory screening as a condition for school entry is not warranted based on available data.
10. Persons involved in the care and education of HTLV-III/LAV-infected children should respect the child's right to privacy, including maintaining confidential records. The number of personnel who are aware of the child's condition should be kept at a minimum needed to assure proper care of the child and to detect situations where the potential for transmission may increase (e.g., bleeding injury).
11. All educational and public health departments, regardless of whether HTLV-III/LAV-infected children are involved, are strongly encouraged to inform parents, children, and educators regarding HTLV-III/LAV and its transmission. Such education would greatly assist efforts to provide the best care and education for infected children while minimizing the risk of transmission to others.

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CENTERS FOR DISEASE CONTROL

MMWR

MORBIDITY AND MORTALITY WEEKLY REPORT

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Current Trends

Update: Prospective Evaluation of Health-Care Workers Exposed via the Parenteral or Mucous-Membrane Route to Blood or Body Fluids from Patients with Acquired Immunodeficiency Syndrome — United States

On August 15, 1983, CDC initiated prospective surveillance of health-care workers (HCWs) with documented parenteral or mucous-membrane exposure to potentially infectious body fluids from patients with definite or suspected acquired immunodeficiency syndrome (AIDS). As of December 31, 1984, 361 HCWs with such exposures were enrolled in CDC's surveillance registry under the auspices of participating hospitals, other health-care institutions, and state and local health departments in the United States. Each enrolled HCW is followed for 3 years with a semiannual interview, physical examination, and blood specimen collection. None of the HCWs have developed signs or symptoms suggestive of AIDS. 143 (40) have now been followed for 12 months or longer.

Exposed HCWs have been reported from 33 states and the District of Columbia. Fifty-nine percent of the HCWs were reported from six states: New York (61), California (39), New Jersey (36), Pennsylvania (28), Florida (25), and Texas (23). As of December 31, 1984, the length of follow-up of HCWs ranged from 1 month to 45 months (mean 11 months, median 10 months). Two hundred eight (58) HCWs were nurses, 66 (18), physicians or medical students, 31 (9), laboratory workers, 26 (7%), phlebotomists, 15 (4), respiratory therapists, and the remaining 15 (4) had less direct patient contact. Eighty-five percent were white, and 78 were female. Ages ranged from 18 years to 62 years (mean 33 years).

The majority of exposures occurred in direct patient-care areas. 187 (52) occurred in patients' rooms or on the wards, 99 (27), in intensive-care units, and seven (2%), in emergency clinics. Thirty-two (9) incidents took place in laboratories, and 36 (10%) occurred in operating or procedure rooms and morgues. The types of exposures were needlestick injuries (68), mucosal exposures (13), cuts with sharp instruments (10), and contamination of open skin lesions with potentially infected body fluids (9%). Eighty-eight percent of the exposures were to blood or serum, 6 , to saliva, 2 , to urine, and the remaining 4 , to other body fluids or unknown sources. Postexposure care varied considerably. Forty-eight percent of exposed HCWs received either no specific treatment or local wound care only, while 35 received immune globulin either alone or in combination with other treatment.

Complete epidemiologic data have been collected on 226 of the patients to whom these HCWs were exposed. Two hundred nine (92%) were AIDS patients meeting the CDC surveillance definition, and 17 (8) were suspected AIDS cases. Two hundred three (97) of the 209 AIDS patients were in an identified risk group for acquiring AIDS. The distribution of the AIDS cases by disease category included *Pneumocystis carinii* pneumonia (PCP), 62 ; Kaposi's sarcoma (KS), 12 ; both KS and PCP, 5% ; and other opportunistic infections, 21%

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Tests for T-cell subsets have been performed at CDC on blood specimens from 269 (75%) of the exposed HCWs. The mean T-helper/T-suppressor (Th/Ts) ratio for the initial whole blood sample from these HCWs was 2.2 with a range of 0.4-5.4 (normal range 1.0-3.9). One hundred eighty-three (68%) of these initial blood specimens were obtained within 180 days from the dates of exposures. Six-month and 12-month follow-up Th/Ts ratios were performed on 69 and six of these 269 HCWs, respectively. All Th/Ts ratios on follow-up specimens were within the normal range, including those from nine HCWs whose initial ratios were less than 1.0.

Serologic testing using the enzyme-linked immunosorbent assay (*1*) and the Western blot technique (*2*) for antibody to the human T-lymphotropic virus type III (HTLV-III) has been done, with specific informed consent, on 40 HCWs enrolled in the surveillance system. The mean duration between the date of exposure and the latest serum sample tested was 10.5 months (range 0-29 months, median 8.5 months). The types of exposures included needlestick injuries (29), cuts with sharp objects (five), mucosal exposures (five), and contamination of open skin lesions (five). None of the HCWs tested were HTLV-III-antibody positive. However, with a sample size of 40, the upper limit of the 95% confidence intervals for this incidence of seropositivity (0%) is 7%.

Reported by Acquired Immunodeficiency Syndrome Needlestick Surveillance Cooperative Group. Immunization Div, Center for Prevention Svcs; Div of Host Factors, Div of Viral Diseases. Hospital Infections Program, Center for Infectious Diseases, CDC.

Editorial Note: Because HTLV-III can be transmitted among intravenous drug abusers by sharing needles and through transfusion of blood and blood products, there is concern that HTLV-III could be transmitted to HCWs by unintentional needlestick or other parenteral or mucous-membrane exposures. A recent report describes an HCW in England who is believed to have developed HTLV-III antibody following parenteral exposure to the blood of an AIDS patient (*3*). The HCW reportedly had none of the recognized risk factors for AIDS and remains asymptomatic.

To date, there are no reported cases of AIDS among HCWs in the United States that can be linked to a specific occupational exposure. Of the 8,218 AIDS patients reported to CDC as of February 11, 1985, 278 (3%) have been HCWs. All but 24 (9%) of these HCWs belong to known AIDS risk groups. Epidemiologic investigations have been completed on 17 of these 24 HCWs, four are currently under investigation, and three died before investigations were completed. In six of the 17 completed investigations, nonoccupational exposures were the most likely sources of infection. No known risk factors for infection were identified in the remaining 11 patients, however, specific occupational exposures to definite or suspected AIDS patients could not be documented.

In December 1984, CDC began testing sera from HCWs enrolled in the surveillance system for antibody to HTLV-III. Testing was performed only with the specific informed consent of enrolled personnel and the agreement of cooperating investigators. Initial results from this analysis and from other similar investigations (*4*) suggest the risk of transmission of HTLV-III infection from AIDS patients to HCWs may be very small. Thus, to accurately determine the true risk of transmission of HTLV-III from AIDS patients to HCWs, large cohorts of exposed HCWs must be studied. Additional studies with larger cohorts of HCWs are in progress, and CDC will continue immunologic and serologic testing of HCWs from whom institutional investigators have obtained informed consent.

Studies of seroprevalence of HTLV-III among exposed HCWs are of great value from an epidemiologic perspective. However, serologic testing of asymptomatic HCWs for HTLV-III antibody should be done only with informed consent, and a mechanism should exist for transmitting the test results to the HCW in an appropriate manner. The U.S. Public Health Service

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has developed specific recommendations for individuals, within or outside known risk groups for AIDS, who test positive for HTLV-III antibody (5-7) Health-care professionals should become familiar with and consider these recommendations when serologic testing of asymptomatic HCWs for HTLV-III antibody is contemplated

Until additional data are available, HCWs should continue to follow previously published precautions when caring for persons with definite or suspected AIDS or when handling specimens from these patients (*8,9*)

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CENTERS FOR DISEASE CONTROL

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MMWR

MORBIDITY AND MORTALITY WEEKLY REPORT

Provisional Public Health Service Inter-Agency Recommendations for Screening Donated Blood and Plasma for Antibody to the Virus Causing Acquired Immunodeficiency Syndrome

In March 1983, the U.S. Public Health Service issued inter-agency recommendations on the prevention of acquired immunodeficiency syndrome (AIDS) (*1*). Included was the recommendation that members of groups at increased risk for AIDS should refrain from donating plasma and/or blood. That recommendation was made to decrease the risk of AIDS associated with the administration of blood or blood products, which accounts for about 2% of all reported AIDS cases in the United States.

Evidence has shown that a newly recognized retrovirus is the cause of AIDS. Although this virus has been given several names, including human T-lymphotropic virus type III (HTLV-III) (*2*), lymphadenopathy-associated virus (LAV) (*3*), and AIDS-associated retrovirus (ARV) (*4*), it is referred to as HTLV-III in this discussion. Tests to detect antibody to HTLV-III will be licensed and commercially available in the United States in the near future to screen blood and plasma for laboratory evidence of infection with the virus. The antibody tests are modifications of the enzyme-linked immunosorbent assay (ELISA), which uses antigens derived from whole disrupted HTLV-III (*5*).

There is considerable experience with the ELISA test in research laboratories, but much additional information will be gathered following its widespread application. In the early phases of testing, a number of false-positive tests may be encountered. Adjustments in interpretation are anticipated as more is learned about the performance of the test in an individual laboratory and about the specific proportion of falsely positive or falsely negative tests in the screening setting where the test is used.

The present recommendations concern the use of these tests to screen blood and plasma collected for transfusion or manufactured into other products. They are intended to supplement, rather than replace, the U.S. Food and Drug Administration's recently revised recommendations to blood and plasma collection facilities and the earlier inter-agency recommendations (*1*). Additional public health applications of these tests in the understanding and control of AIDS will be described in a subsequent report.

BACKGROUND

Antibody Detection Studies

The ELISA test has been used in many research programs for detecting antibodies to HTLV-III in patients with AIDS and with AIDS-related conditions. In different studies, HTLV-III antibody was found to range from 68% to 100% of patients with AIDS, and in 84%-100% of persons with related conditions, such as unexplained generalized lymphadenopathy (*5-7*). Serologic surveys have yielded variable seropositivity rates in groups at increased risk for AIDS: 22%-65% of homosexual men (*8-11*), 87% of intravenous-drug abusers admitted to a detoxification program in New York City (*12*), 58%-72% of persons with hemophilia A (*13,14*), and 35% of women who were sexual partners of men with AIDS (*15*). In contrast to

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the above groups. HTLV-III antibody has been detected in fewer than 1% of persons with no known risks for AIDS (*4-10*).

The time needed to develop a positive antibody test following infection is not known. Data regarding the interval between infection with HTLV-III and seroconversion are limited. A nurse who sustained a needle-stick injury while caring for an AIDS patient developed antibody between 4 and 7 weeks following exposure (*16*). Additionally, a recent study described several asymptomatic individuals infected with HTLV-III for more than 6 months in the absence of detectable antibody (*17,18*). Nonetheless, currently available ELISA tests can be expected to identify most persons with HTLV-III infection.

Virus Isolation Studies

HTLV-III has been isolated from blood, semen, and saliva and has been recovered from many individuals in the presence of antibody (*19,20*). HTLV-III has been isolated from the blood of 85% or more of seropositive individuals with AIDS (*21*), lymphadenopathy, or other AIDS-associated conditions (*2*) and from three of four mothers of infants with AIDS (*2*). The virus has also been isolated from asymptomatic seropositive homosexual men and hemophiliacs, and has been recovered from 95% of seropositive high-risk blood donors who had been implicated in the transmission of AIDS through transfusion (*21*). The recovery of HTLV-III from these high-risk donors 2 or more years after their initial donation provides evidence that viremia may persist for years in both asymptomatic and symptomatic individuals. HTLV-III has also been isolated from some asymptomatic seronegative persons, but this is the exception (*17*).

Modes of Transmission

Epidemiologic data suggest that the virus has been transmitted through intimate sexual contact, sharing contaminated needles, transfusion of whole blood, blood cellular components, plasma, or clotting factor concentrates that have not been heat treated, or from infected mother to child before, at, or shortly after the time of birth. No other products prepared from blood (e.g., immunoglobulin, albumin, plasma protein fraction, hepatitis B vaccine) have been implicated, nor have cases been documented to occur through such common exposures as sharing meals, sneezing or coughing, or other casual contact.

Natural History of Infection

Information about the course of infection with HTLV-III is incomplete, but the majority of infected adults will not acquire clinically apparent AIDS in the first few years after infection. In some studies 5%-19% of seropositive homosexual men developed AIDS within 2-5 years after a previously collected serum sample was retrospectively tested and found to be seropositive. An additional 25% developed generalized lymphadenopathy, oral candidiasis, or other AIDS-associated conditions within the same interval (*11,22*). The long-term prognosis for most persons infected with HTLV-III is unknown.

SCREENING BLOOD AND PLASMA

Initial Testing

Persons accepted as donors should be informed that their blood or plasma will be tested for HTLV-III antibody. Persons not wishing to have their blood or plasma tested must refrain from donation. Donors should be told that they will be notified if their test is positive and that they may be placed on the collection facility's donor deferral list, as is currently practiced with other infectious diseases, and should be informed of the identities of additional deferral lists to which the positive donors may be added.

All blood or plasma should be tested for HTLV-III antibody by ELISA. Any blood or plasma that is positive on initial testing must not be transfused or manufactured into other products capable of transmitting infectious agents.

When the ELISA is used to screen populations in whom the prevalence of HTLV-III infections is low, the proportion of positive results that are falsely positive will be high. Therefore,

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the ELISA should be repeated on all seropositive specimens before the donor is notified. If the repeat ELISA test is negative, the specimen should be tested by another test.

Other Testing

Other tests have included immunofluorescence and radioimmunoprecipitation assays, but the most extensive experience has been with the Western blot technique (*22*), in which antibodies can be detected to HTLV-III proteins of specific molecular weights. Based on available data, the Western blot should be considered positive for antibody to HTLV-III if band p24 or gp41 is present (alone or in combination with other bands).

Notification of Donors

If the repeat ELISA test is positive or if other tests are positive, it is the responsibility of the collection facility to ensure that the donor is notified. The information should be given to the donor by an individual especially aware of the sensitivities involved. At present, the proportion of these seropositive donors who have been infected with HTLV-III is not known. It is, therefore, important to emphasize to the donor that the positive result is a preliminary finding that may not represent true infection. To determine the significance of a positive test, the donor should be referred to a physician for evaluation. The information should be given to the donor in a manner to ensure confidentiality of the results and of the donor's identify.

Maintaining Confidentiality

Physicians, laboratory and nursing personnel, and others should recognize the importance of maintaining confidentiality of positive test results. Disclosure of this information for purposes other than medical or public health could lead to serious consequences for the individual. Screening procedures should be designed with safeguards to protect against unauthorized disclosure. Donors should be given a clear explanation of how information about them will be handled. Facilities should consider developing contingency plans in the event that disclosure is sought through legal process. If donor deferral lists are kept, it is necessary to maintain confidentiality of such lists. Whenever appropriate, as an additional safeguard, donor deferral lists should be general, without indication of the reason for inclusion.

Medical Evaluation

The evaluation might include ELISA testing of a follow-up serum specimen and Western blot testing if the specimen is positive. Persons who continue to show serologic evidence of HTLV-III infection should be questioned about possible exposure to the virus or possible risk factors for AIDS in the individual or his her sexual contacts and examined for signs of AIDS or related conditions, such as lymphadenopathy, oral candidiasis, Kaposi's sarcoma, and unexplained weight loss. Additional laboratory studies might include tests for other sexually transmitted diseases, tests of immune function, and where available, tests for the presence of the virus, such as viral culture. Testing for antibodies to HTLV-III in the individual's sexual contacts may also be useful in establishing whether the test results truly represent infection.

RECOMMENDATIONS FOR THE INDIVIDUAL

An individual judged most likely to have an HTLV-III infection should be provided the following information and advice:

1. The prognosis for an individual infected with HTLV-III over the long term is not known. However, data available from studies conducted among homosexual men indicate that most persons will remain infected.
2. Although asymptomatic, these individuals may transmit HTLV-III to others. Regular medical evaluation and follow-up is advised, especially for individuals who develop signs or symptoms suggestive of AIDS.
3. Refrain from donating blood, plasma, body organs, other tissue, or sperm.
4. There is a risk of infecting others by sexual intercourse, sharing of needles, and possibly, exposure of others to saliva through oral-genital contact or intimate kissing. The

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efficacy of condoms in preventing infection with HTLV-III is unproven, but the consistent use of them may reduce transmission.

5. Toothbrushes, razors, or other implements that could become contaminated with blood should not be shared.
6. Women with a seropositive test, or women whose sexual partner is seropositive, are themselves at increased risk of acquiring AIDS. If they become pregnant, their offspring are also at increased risk of acquiring AIDS.
7. After accidents resulting in bleeding, contaminated surfaces should be cleaned with household bleach freshly diluted 1:10 in water.
8. Devices that have punctured the skin, such as hypodermic and acupuncture needles, should be steam sterilized by autoclave before reuse or safely discarded. Whenever possible, disposable needles and equipment should be used.
9. When seeking medical or dental care for intercurrent illness, these persons should inform those responsible for their care of their positive antibody status so that appropriate evaluation can be undertaken and precautions taken to prevent transmission to others.
10. Testing for HTLV-III antibody should be offered to persons who may have been infected as a result of their contact with seropositive individuals (e.g., sexual partners, persons with whom needles have been shared, infants born to seropositive mothers).

Revised recommendations will be published as additional information becomes available and additional experience is gained with this test.

Reported by Centers for Disease Control, Food and Drug Administration, Alcohol, Drug Abuse, and Mental Health Administration, National Institutes of Health, Health Resources and Services Administration

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CENTERS FOR DISEASE CONTROL

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MMWR

MORBIDITY AND MORTALITY WEEKLY REPORT

Prospective Evaluation of Health-Care Workers Exposed via Parenteral or Mucous-Membrane Routes to Blood and Body Fluids of Patients with Acquired Immunodeficiency Syndrome

In August 1983, CDC initiated prospective surveillance of health-care workers with documented parenteral or mucous-membrane exposures to potentially infectious body fluids from patients with definite or suspected acquired immunodeficiency syndrome (AIDS). By December 31, 1983, 51 health-care workers with such exposures were enrolled in CDC's surveillance registry through the auspices of participating hospitals, other health-care institutions, and health departments in the United States.* None of these workers has developed signs or symptoms suggestive of AIDS. All but one of these workers had been followed for less than 12 months (see below).

Among the 51 exposed health-care workers studied, 19 (37%) have been reported from New York; nine (18%), from Texas; seven (14%), from Pennsylvania; five (10%) from New Jersey; and 11 (21%), from seven other states. Exposures occurred between April 1981 and November 1983. Length of follow-up of exposed health-care workers ranged from 1 month to 32 months by December 31, 1983 (mean 5.5 months). Twenty-four (47%) of the exposed workers were nurses; nine (18%) were physicians; five (10%) were phlebotomists; three (6%) were respiratory therapists; and the remaining 10 (20%) were health-care workers with less direct patient contact, such as laboratory and maintenance personnel. Eighty percent were white, and 75% were female. Ages ranged from 18 years to 51 years (mean 29 years).

The majority of exposures occurred in direct patient-care areas. Twenty-seven (53%) exposures occurred in patients' rooms or on wards, and 12 (24%) occurred in intensive-care units. Seven incidents (14%) took place in laboratories, and five (10%) occurred in operating rooms or morgues. The types of exposures were: needlestick injuries (65%); cuts with sharp instruments (16%); mucosal exposure (14%); and contamination of open skin lesions with potentially infective body fluids (6%). Post-exposure treatment consisted of local care only in 41%; administration of hepatitis B immune globulin (HBIG) alone or in combination with immune globulin (IG) or tetanus (Td) prophylaxis in 24%; IG alone or with Td in 31%; and Td only in 4%. Among the 12 exposed health-care workers receiving HBIG, three were exposed to AIDS patients reported positive for hepatitis B surface antigen (HBsAg).

Reported by GA Thomas, MD, MD Anderson Hospital, Houston, Texas; G Talbot, MD, Hospital of the University of Pennsylvania, Philadelphia, J Jahre, MD, St. Luke's Hospital, Bethlehem, C Legaspi, MD, Veterans Administration Medical Center, Lebanon, Pennsylvania; D Silverman, MD, Bellevue Hospital Medical Center, W McKinley, Beth Israel Medical Center, J Gold, MD, Memorial Hospital for Cancer, M Grieco, MD, M Lange, MD, St. Luke's-Roosevelt Hospital Center, J Vieira, MD, Brooklyn Hospital, New York City, C Matkovic, MD, St. John's Episcopal Hospital, Smithtown, A Laporta, MD, Astoria General Hospital, Long Island City, R Stricof, New York State Dept of Health; JA Jacobson, MD, LDS Hospital, Salt Lake City, Utah; MA Sanchez, MD, Englewood Hospital, Englewood, HD Luce, MD, New Jersey State Dept of Health; JA McCutchan, MD, University of California Medical Center, San Diego, L Thrupp, MD, University of California Medical Center, Irvine, California; N Jacobson, MD, Coral Reef General Hospital, Miami, Florida; BP Buggy, St. Luke's Hospital, Milwaukee, Wisconsin; M Eberenz, Mt. Carmel East Hospital, Columbus, Ohio; P Dennehy, MD, Rhode Island Hospital, Providence; AH Everhart, Doctors Hospital, Tucker, Georgia; Div of Immunization, Center for Prevention Svcs, AIDS Activity, Div of Host Factors, Div of Viral Diseases, Hospital Infections Program, Center for Infectious Diseases, CDC.

Editorial Note: The principal goal of this surveillance project is to evaluate the risk, if any, to

*Since December 31, 1983, preliminary reports have been received on an additional 50 exposed health-care workers.

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health-care workers exposed to potentially infectious materials from AIDS patients. Epidemiologic evidence is consistent with the hypothesis that AIDS is caused by a transmissible infectious agent (*1,2*). AIDS appears to be transmitted by intimate sexual contact or by percutaneous inoculation of blood or blood products. There is no evidence of transmission through casual contact with affected individuals or by airborne spread, and there are no cases of AIDS among health-care workers that can definitely be ascribed to specific occupational exposures. The risk of AIDS transmission to health-care workers through percutaneous or mucosal inoculation of blood or body fluids from AIDS patients remains undefined, although currently available epidemiologic data suggest that the risk of transmission, if any, is small.

Recommended precautions for preventing AIDS in health-care workers have been published (*3-5*). These recommendations are designed to minimize the risk of mucosal or parenteral exposure to potentially infectious materials from AIDS patients. Based on descriptions of the incidents supplied to CDC, over one-third of the exposures among these 51 health-care workers might have been prevented by following recommended precautions. Health-care workers are urged to become familiar with and adhere to these recommendations.

No single form of post-exposure care appears to predominate among personnel reported to CDC, although local wound care only was the largest individual treatment category. Since AIDS patients are often in groups at high risk for hepatitis B, post-exposure prophylaxis should follow guidelines for immunoprophylaxis for viral hepatitis (*6*).

The enrollment phase of this surveillance project is designed to last 3 years. Institutions and investigators wanting information on participation in the project should contact CDC's Hospital Infections Program at (404) 329-3406.

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CENTERS FOR DISEASE CONTROL

MMWR

MORBIDITY AND MORTALITY WEEKLY REPORT

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Current Trends

Acquired Immunodeficiency Syndrome (AIDS): Precautions for Health-Care Workers and Allied Professionals

Acquired immunodeficiency syndrome (AIDS) was first recognized in 1981. The epidemiology of AIDS is consistent with the hypothesis that it is caused by a transmissible infectious agent (*1-3*). AIDS appears to be transmitted by intimate sexual contact or by percutaneous inoculation of blood or blood products. There has been no evidence of transmission by casual contact or airborne spread, nor have there been cases of AIDS in health-care or laboratory personnel that can be definitely ascribed to specific occupational exposures (*4*).

CDC has published recommended precautions for clinical and laboratory personnel who work with AIDS patients (*5*). Precautions for these and allied professionals are designed to minimize the risk of mucosal or parenteral exposure to potentially infective materials. Such exposure can occur during direct patient care or while working with clinical or laboratory specimens and from inadvertent or unknowing exposure to equipment, such as needles, contaminated with potentially infective materials. Caution should be exercised in handling secretions or excretions, particularly blood and body fluids, from the following: (1) patients who meet the existing surveillance definition of AIDS (*1*); (2) patients with chronic, generalized lymphadenopathy, unexplained weight loss, and/or prolonged unexplained fever when the pa-

AIDS – Continued

tient's history suggests an epidemiologic risk for AIDS (*1,2*); and (3) all hospitalized patients with possible AIDS.

These principles for preventing AIDS transmission also need to be adopted by allied professionals not specifically addressed in the previous publications but whose work may bring them into contact with potentially infective material from patients with the illnesses described in the above three groups.

The following precautions are recommended for those who provide dental care, perform postmortem examinations, and perform work as morticians when working with persons with histories of illnesses described in the above three groups:

DENTAL-CARE PERSONNEL

1. Personnel should wear gloves, masks, and protective eyewear when performing dental or oral surgical procedures.
2. Instruments used in the mouths of patients should be sterilized after use (*5-9*).

PERSONS PERFORMING NECROPSIES OR PROVIDING MORTICIANS' SERVICES

1. As part of immediate postmortem care, deceased persons should be identified as belonging to one of the above three groups, and that identification should remain with the body.
2. The procedures followed before, during, and after the postmortem examination are similar to those for hepatitis B. All personnel involved in performing an autopsy should wear double gloves, masks, protective eyewear, gowns, waterproof aprons, and waterproof shoe coverings. Instruments and surfaces contaminated during the postmortem examination should be handled as potentially infective items (*5-7*).
3. Morticians should evaluate specific procedures used in providing mortuary care and take appropriate precautions to prevent the parenteral or mucous-membrane exposure of personnel to body fluids.

These and earlier recommendations outline good infection control and laboratory practices and are similar to the recommendations for prevention of hepatitis B. As new information becomes available on the cause and transmission of AIDS, these precautions will be revised as necessary.

Reported by AIDS Activity, Div of Host Factors, Div of Viral Diseases, Hospital Infections Program, Center for Infectious Diseases, Office of Biosafety, CDC

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MMWR

MORBIDITY AND MORTALITY WEEKLY REPORT

Current Trends

Prevention of Acquired Immune Deficiency Syndrome (AIDS): Report of Inter-Agency Recommendations

Since June 1981, over 1,200 cases of acquired immune deficiency syndrome (AIDS) have been reported to CDC from 34 states, the District of Columbia, and 15 countries. Reported cases of AIDS include persons with Kaposi's sarcoma who are under age 60 years and/or persons with life-threatening opportunistic infections with no known underlying cause for immune deficiency. Over 450 persons have died from AIDS, and the case-fatality rate exceeds 60% for cases first diagnosed over 1 year previously (*1,2*). Reports have gradually increased in number. An average of one case per day was reported during 1981, compared with three to four daily in late 1982 and early 1983. Current epidemiologic evidence identifies several groups in the United States at increased risk for developing AIDS (*3-7*). Most cases have been reported among homosexual men with multiple sexual partners, abusers of intravenous (IV) drugs, and Haitians, especially those who have entered the country within the past few years. However, each group contains many persons who probably have little risk of acquiring AIDS. Recently, 11 cases of unexplained, life-threatening opportunistic infections and cellular immune deficiency have been diagnosed in patients with hemophilia. Available data suggest that the severe disorder of immune regulation underlying AIDS is caused by a transmissible agent.

A national case-control study and an investigation of a cluster of cases among homosexual men in California indicate that AIDS may be sexually transmitted among homosexual or bisexual men (*8,9*). AIDS cases were recently reported among women who were steady sexual partners of men with AIDS or of men in high-risk groups, suggesting the possibility of heterosexual transmission (*10*). Recent reports of unexplained cellular immunodeficiencies and opportunistic infections in infants born to mothers from groups at high risk for AIDS have raised concerns about in utero or perinatal transmission of AIDS (*11*). Very little is known about risk factors for Haitians with AIDS.

The distribution of AIDS cases parallels that of hepatitis B virus infection, which is transmitted sexually and parenterally. Blood products or blood appear responsible for AIDS among hemophilia patients who require clotting factor replacement. The likelihood of blood transmission is supported by the occurrence of AIDS among IV drug abusers. Many drug abusers share contaminated needles, exposing themselves to blood-borne agents, such as hepatitis B virus. Recently, an infant developed severe immune deficiency and an opportunistic infection several months after receiving a transfusion of platelets derived from the blood of a man subsequently found to have AIDS (*12*). The possibility of acquiring AIDS through blood components or blood is further suggested by several cases in persons with no known risk factors who have received blood products or blood within 3 years of AIDS diagnosis (*2*). These cases are currently under investigation.

No AIDS cases have been documented among health care or laboratory personnel caring

AIDS – Continued

for AIDS patients or processing laboratory specimens. To date, no person-to-person transmission has been identified other than through intimate contact or blood transfusion.

Several factors indicate that individuals at risk for transmitting AIDS may be difficult to identify. A New York City study showed that a significant proportion of homosexual men who were asymptomatic or who had nonspecific symptoms or signs (such as generalized lymphadenopathy) had altered immune functions demonstrated by in vitro tests (*2,13,14*). Similar findings have been reported among patients with hemophilia (*2,15,16*). Although the significance of these immunologic alterations is not yet clear, their occurrence in at least two groups at high risk for AIDS suggests that the pool of persons potentially capable of transmitting an AIDS agent may be considerably larger than the presently known number of AIDS cases. Furthermore, the California cluster investigation and other epidemiologic findings suggest a "latent period" of several months to 2 years between exposure and recognizable clinical illness and imply that transmissibility may precede recognizable illness. Thus, careful histories and physical examinations alone will not identify all persons capable of transmitting AIDS but should be useful in identifying persons with definite AIDS diagnoses or related symptoms, such as generalized lymphadenopathy, unexplained weight loss, and thrush. Since only a small percentage of members of high-risk groups actually has AIDS, a laboratory test is clearly needed to identify those with AIDS or those at highest risk of acquiring AIDS. For the above reasons, persons who may be considered at increased risk of AIDS include those with symptoms and signs suggestive of AIDS; sexual partners of AIDS patients; sexually active homosexual or bisexual men with multiple partners; Haitian entrants to the United States; present or past abusers of IV drugs; patients with hemophilia; and sexual partners of individuals at increased risk for AIDS.

Statements on prevention and control of AIDS have been issued by the National Gay Task Force, the National Hemophilia Foundation, the American Red Cross, the American Association of Blood Banks, the Council of Community Blood Centers, the American Association of Physicians for Human Rights, and others. These groups agree that steps should be implemented to reduce the potential risk of transmitting AIDS through blood products, but differ in the methods proposed to accomplish this goal. Public health agencies, community organizations, and medical organizations and groups share the responsibility to rapidly disseminate information on AIDS and recommended precautions.

Although the cause of AIDS remains unknown, the Public Health Service recommends the following actions:

1. Sexual contact should be avoided with persons known or suspected to have AIDS. Members of high risk groups should be aware that multiple sexual partners increase the probability of developing AIDS.
2. As a temporary measure, members of groups at increased risk for AIDS should refrain from donating plasma and/or blood. This recommendation includes all individuals belonging to such groups, even though many individuals are at little risk of AIDS. Centers collecting plasma and/or blood should inform potential donors of this recommendation. The Food and Drug Administration (FDA) is preparing new recommendations for manufacturers of plasma derivatives and for establishments collecting plasma or blood. This is an interim measure to protect recipients of blood products and blood until specific laboratory tests are available.
3. Studies should be conducted to evaluate screening procedures for their effectiveness in identifying and excluding plasma and blood with a high probability of transmitting AIDS. These procedures should include specific laboratory tests as well as careful histories and physical examinations.

AIDS – Continued

4. Physicians should adhere strictly to medical indications for transfusions, and autologous blood transfusions are encouraged.
5. Work should continue toward development of safer blood products for use by hemophilia patients.

The National Hemophilia Foundation has made specific recommendations for management of patients with hemophilia (*17*).

The interim recommendation requesting that high-risk persons refrain from donating plasma and/or blood is especially important for donors whose plasma is recovered from plasmapheresis centers or other sources and pooled to make products that are not inactivated and may transmit infections, such as hepatitis B. The clear intent of this recommendation is to eliminate plasma and blood potentially containing the putative AIDS agent from the supply. Since no specific test is known to detect AIDS at an early stage in a potential donor, the recommendation to discourage donation must encompass all members of groups at increased risk for AIDS, even though it includes many individuals who may be at little risk of transmitting AIDS.

As long as the cause remains unknown, the ability to understand the natural history of AIDS and to undertake preventive measures is somewhat compromised. However, the above recommendations are prudent measures that should reduce the risk of acquiring and transmitting AIDS.

Reported by the Centers for Disease Control, the Food and Drug Administration, and the National Institutes of Health.

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MMWR

MORBIDITY AND MORTALITY WEEKLY REPORT

Current Trends

Acquired Immune Deficiency Syndrome (AIDS): Precautions for Clinical and Laboratory Staffs

The etiology of the underlying immune deficiencies seen in AIDS cases is unknown. One hypothesis consistent with current observations is that a transmissible agent may be involved. If so, transmission of the agent would appear most commonly to require intimate, direct contact involving mucosal surfaces, such as sexual contact among homosexual males, or through parenteral spread, such as occurs among intravenous drug abusers and possibly hemophilia patients using Factor VIII products. Airborne spread and interpersonal spread through casual contact do not seem likely. These patterns resemble the distribution of disease and modes of spread of hepatitis B virus, and hepatitis B virus infections occur very frequently among AIDS cases.

There is presently no evidence of AIDS transmission to hospital personnel from contact with affected patients or clinical specimens. Because of concern about a possible transmissible agent, however, interim suggestions are appropriate to guide patient-care and laboratory personnel, including those whose work involves experimental animals. At present, it appears prudent for hospital personnel to use the same precautions when caring for patients with AIDS as those used for patients with hepatitis B virus infection, in which blood and body fluids likely to have been contaminated with blood are considered infective. Specifically, patient-care and laboratory personnel should take precautions to avoid direct contact of skin and mucous membranes with blood, blood products, excretions, secretions, and tissues of persons judged likely to have AIDS. The following precautions do not specifically address outpatient care, dental care, surgery, necropsy, or hemodialysis of AIDS patients. In general, procedures appropriate for patients known to be infected with hepatitis B virus are advised, and blood and organs of AIDS patients should not be donated.

The precautions that follow are advised for persons and specimens from persons with: opportunistic infections that are not associated with underlying immunosuppressive disease or therapy; Kaposi's sarcoma (patients under 60 years of age); chronic generalized lymphadenopathy, unexplained weight loss and/or prolonged unexplained fever in persons who belong to groups with apparently increased risks of AIDS (homosexual males, intravenous drug abusers, Haitian entrants, hemophiliacs); and possible AIDS (hospitalized for evaluation). Hospitals and laboratories should adapt the following suggested precautions to their individual circumstances; these recommendations are not meant to restrict hospitals from implementing additional precautions.

A. The following precautions are advised in providing care to AIDS patients:

1. Extraordinary care must be taken to avoid accidental wounds from sharp instruments contaminated with potentially infectious material and to avoid contact of open skin lesions with material from AIDS patients.

Acquired Immune Deficiency Syndrome – Continued

2. Gloves should be worn when handling blood specimens, blood-soiled items, body fluids, excretions, and secretions, as well as surfaces, materials, and objects exposed to them.
3. Gowns should be worn when clothing may be soiled with body fluids, blood, secretions, or excretions.
4. Hands should be washed after removing gowns and gloves and before leaving the rooms of known or suspected AIDS patients. Hands should also be washed thoroughly and immediately if they become contaminated with blood.
5. Blood and other specimens should be labeled prominently with a special warning, such as "Blood Precautions" or "AIDS Precautions." If the outside of the specimen container is visibly contaminated with blood, it should be cleaned with a disinfectant (such as a 1:10 dilution of 5.25% sodium hypochlorite [household bleach] with water). All blood specimens should be placed in a second container, such as an impervious bag, for transport. The container or bag should be examined carefully for leaks or cracks.
6. Blood spills should be cleaned up promptly with a disinfectant solution, such as sodium hypochlorite (see above).
7. Articles soiled with blood should be placed in an impervious bag prominently labeled "AIDS Precautions" or "Blood Precautions" before being sent for reprocessing or disposal. Alternatively, such contaminated items may be placed in plastic bags of a particular color designated solely for disposal of infectious wastes by the hospital. Disposable items should be incinerated or disposed of in accord with the hospital's policies for disposal of infectious wastes. Reusable items should be reprocessed in accord with hospital policies for hepatitis B virus-contaminated items. Lensed instruments should be sterilized after use on AIDS patients.
8. Needles should not be bent after use, but should be promptly placed in a puncture-resistant container used solely for such disposal. Needles should not be reinserted into their original sheaths before being discarded into the container, since this is a common cause of needle injury.
9. Disposable syringes and needles are preferred. Only needle-locking syringes or one-piece needle-syringe units should be used to aspirate fluids from patients, so that collected fluid can be safely discharged through the needle, if desired. If reusable syringes are employed, they should be decontaminated before reprocessing.
10. A private room is indicated for patients who are too ill to use good hygiene, such as those with profuse diarrhea, fecal incontinence, or altered behavior secondary to central nervous system infections.

Precautions appropriate for particular infections that concurrently occur in AIDS patients should be added to the above, if needed.

B. The following precautions are advised for persons performing laboratory tests or studies on clinical specimens or other potentially infectious materials (such as inoculated tissue cultures, embryonated eggs, animal tissues, etc.) from known or suspected AIDS cases:

1. Mechanical pipetting devices should be used for the manipulation of all liquids in the laboratory. Mouth pipetting should not be allowed.
2. Needles and syringes should be handled as stipulated in Section A (above).
3. Laboratory coats, gowns, or uniforms should be worn while working with potentially infectious materials and should be discarded appropriately before leaving the laboratory.
4. Gloves should be worn to avoid skin contact with blood, specimens containing blood, blood-soiled items, body fluids, excretions, and secretions, as well as surfaces, materials, and objects exposed to them.

Acquired Immune Deficiency Syndrome – Continued

5. All procedures and manipulations of potentially infectious material should be performed carefully to minimize the creation of droplets and aerosols.
6. Biological safety cabinets (Class I or II) and other primary containment devices (e.g., centrifuge safety cups) are advised whenever procedures are conducted that have a high potential for creating aerosols or infectious droplets. These include centrifuging, blending, sonicating, vigorous mixing, and harvesting infected tissues from animals or embryonated eggs. Fluorescent activated cell sorters generate droplets that could potentially result in infectious aerosols. Translucent plastic shielding between the droplet-collecting area and the equipment operator should be used to reduce the presently uncertain magnitude of this risk. Primary containment devices are also used in handling materials that might contain concentrated infectious agents or organisms in greater quantities than expected in clinical specimens.
7. Laboratory work surfaces should be decontaminated with a disinfectant, such as sodium hypochlorite solution (see A5 above), following any spill of potentially infectious material and at the completion of work activities.
8. All potentially contaminated materials used in laboratory tests should be decontaminated, preferably by autoclaving, before disposal or reprocessing.
9. All personnel should wash their hands following completion of laboratory activities, removal of protective clothing, and before leaving the laboratory.

C. The following additional precautions are advised for studies involving experimental animals inoculated with tissues or other potentially infectious materials from individuals with known or suspected AIDS.

1. Laboratory coats, gowns, or uniforms should be worn by personnel entering rooms housing inoculated animals. Certain nonhuman primates, such as chimpanzees, are prone to throw excreta and to spit at attendants; personnel attending inoculated animals should wear molded surgical masks and goggles or other equipment sufficient to prevent potentially infective droplets from reaching the mucosal surfaces of their mouths, nares, and eyes. In addition, when handled, other animals may disturb excreta in their bedding. Therefore, the above precautions should be taken when handling them.
2. Personnel should wear gloves for all activities involving direct contact with experimental animals and their bedding and cages. Such manipulations should be performed carefully to minimize the creation of aerosols and droplets.
3. Necropsy of experimental animals should be conducted by personnel wearing gowns and gloves. If procedures generating aerosols are performed, masks and goggles should be worn.
4. Extraordinary care must be taken to avoid accidental sticks or cuts with sharp instruments contaminated with body fluids or tissues of experimental animals inoculated with material from AIDS patients.
5. Animal cages should be decontaminated, preferably by autoclaving, before they are cleaned and washed.
6. Only needle-locking syringes or one-piece needle-syringe units should be used to inject potentially infectious fluids into experimental animals.

The above precautions are intended to apply to both clinical and research laboratories. Biological safety cabinets and other safety equipment may not be generally available in clinical laboratories. Assistance should be sought from a microbiology laboratory, as needed, to assure containment facilities are adequate to permit laboratory tests to be conducted safely.

Reported by Hospital Infections Program, Div of Viral Diseases, Div of Host Factors, Div of Hepatitis and

Viral Enteritis, AIDS Activity, Center for Infectious Diseases, Office of Biosafety, CDC; Div of Safety, National Institutes of Health.

AIDS EXPERT: KEEP 'EM OUT

School is no place for fatal virus, doc says

A DOCTOR who has treated more than 100 AIDS patients testified in court it is "medically unsound" to send a child afflicted with the disease to public school.

Dr. Ronald Rosenblatt told a packed Queens courtroom that an AIDS child could endanger classmates if he vomited, had a nosebleed or even spat.

Rosenblatt was the first expert witness called to testify at a precedent-setting court battle in which Queens School Board 27 is trying to bar a second-grade AIDS student from school.

By JACK PERITZ & DAVID NG

Parents of the district boycotted the first days of school to protest the admission of the AIDS child, although they have no idea who the child is or which of the city's 620 elementary schools the child attends.

During the course of the dramatic hearing, it was inadvertently disclosed for the first time that the unidentified AIDS child is a girl.

A lawyer hired to represent the girl stormed out of court yesterday after state Supreme Court Justice Harold Hyman refused to let him participate in the legal battle.

"My client wants to go to school," said the lawyer, David Ellenhorn.

"He, or she, is a wonderful kid and wants to go to school. I'm going to see that that happens."

City Corporation Counsel Frederic Schwarz attacked the expertise of Rosenblatt, who was called as a witness by the school board.

Rosenblatt came under attack when he said he believed AIDS can be transmitted by a mosquito bite — a view discounted by most medical researchers.

The hearing resumes today.

Rosenblatt told the court that "it is medically unsound" to put a child with AIDS into a classroom.

"Carrying a virus which is that fatal . . . should not be in a classroom," he said.

"If the child should have lesions on the body, cut himself in class, experience a nosebleed or in any way pass his body secretions, such as blood, to any person, it could be transmitted just like any other virus," Rosenblatt testified.

"If the child vomits, can there be a danger to other children?" asked Robert Sullivan, the lawyer for the school board.

"I believe it could," Rosenblatt responded.

"Can it be transmitted through saliva?" Sullivan then asked.

"It is possible," said Rosenblatt.

Rosenblatt, an internist at Flushing Hospital in Queens, said he has treated 100 to 150 cases of AIDS at Memorial Sloan-Kettering Hospital in Manhattan, where he served his residency.

Under cross-examination by Schwarz, the city's top lawyer asked Rosenblatt: "Can someone bitten by a mosquito transmit AIDS?"

"Yes," Rosenblatt answered.

Schwarz then faced the judge and said: "The witness does not know what he is talking about."

Outside the courtroom, Sullivan said the point he was trying to make was that "no one knows all about AIDS and no one agrees."

He said Rosenblatt will be followed to the stand by three other medical experts.

Schwarz responded: "We'll take them on one at a time."

He said the city would call its own experts to keep the 7-year-old child in school.

"I'm not sure that this is the best place to resolve what really is a scientific issue," Schwarz told reporters.