Approved 2-2-88
Date

MINUTES OF THE SENATE COMMITTEE ON PUBLIC HEALTH AND WELFARE.

The meeting was called to order by SENATOR ROY M. EHRLICH at
Chairperson

10:00 a.m./~~p.m.~~ on January 26, 1988 in room 526-S of the Capitol.

All members were present except:

Committee staff present:

Emalene Correll, Legislative Research
Bill Wolff, Legislative Research
Norman Furse, Revisor's Office
Clarene Wilms, Committee Secretary

Conferees appearing before the committee:

Senator Jack Steineger
Michael Brown, Registered Nurse, Topeka
Dr. Don Hatton, President, Kansas Medical Society
Keith Landis, Christian Science, Committee on Publications

The chairman presented the minutes of meetings held January 19, 20, 21 and 22 for correction or approval. Senator Bond moved that the minutes be approved as presented. Senator Hayden seconded the motion and the motion carried.

Senator Jack Steineger spoke to the committee relating the reasoning which led to the development of SB-445. Concerns about liability of the state in situations where people are incarcerated were a major issue. The bill establishes statewide standards and requirements. Essentially the bill does six things: (1) Requires testing of blood and tissue in all banks; (2) Requires reporting of all AIDS infections to the State Health Department and provides clear authority to "track down" previous contacts; (3) Requires testing before issuance of a marriage license; (4) Requires testing of persons convicted of sex crimes; (5) Requires testing of persons involuntarily held in state or local institutions for more than 72 hours; (6) Knowingly exposing another person through sexual contact is a Class D felony. Attachment 1

Michael D. Brown, RN, appeared concerning SB-445, stating he was appearing in the role of self-appointed children's public health advocate. The major concern deals with Section 22, especially as it would affect sex partners of Kansas girls and boys 17 years old and younger. Attachment 2

Dr. Don Hatton presented the position statement on AIDS from the Kansas Medical Society. Dr. Hatton stated SB-445 was a very good bill for a disease for which there was a vaccine. However, there is no such help for AIDS at the present time. Federal regulations that have recently come forth go beyond what are being suggested in SB-445. Therefore, we should look to the federal regulations. It was further suggested that education may be the best method to deal with AIDS. Attachment 3

Keith Landis, representing the Christian Science Committee on Publications requested an amendment to SB-445 dealing with the waiving of tests when they are contrary to religious creed. Attachment 4

The meeting adjourned at 11 a.m. The committee will meet at 10:00 a.m., January 27, 1988.

SENATE
PUBLIC HEALTH AND WELFARE COMMITTEE
DATE January 26, 1988

(PLEASE PRINT) NAME AND ADDRESS	ORGANIZATION
D. Marcini	Dof A.
Robt French	Ks Dept Health & Environment
Karen Trapan	"
Bill Wade	Gov. Task Force / Ks. AIDS Network
Harold Riemm	KAOA
Linda Lukensky	Ks Assn of Home Health Agcy.
Bonda Spector	Attorney General
Dr Pat Hays	KDHE Labs
Roger Carlson	KDHE
Gary K. Hulett	KDHE
Lou Snyder	Kansas AMI
Howard Snyder	Kansas AMI
Michael D. Brown	self
Terri Roberts	Kansas State Nurses' Assoc.

STATE OF KANSAS

JACK STEINEGER
SENATOR, SIXTH DISTRICT
STATE CAPITOL BLDG., ROOM 136-NORTH
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TOPEKA

SENATE CHAMBER

COMMITTEE ASSIGNMENTS
MEMBER INTERSTATE COOPERATION
JUDICIARY
LABOR, INDUSTRY, AND SMALL BUSINESS
LEGISLATIVE AND CONGRESSIONAL APPORTIONMENT
LOCAL GOVERNMENT

January 26, 1988

TESTIMONY

AIDS BILL SENATE BILL 445

The exponential spread of this fatal disease is more of a problem than we care to admit. Some segments of society have a 47% infection rate. It also portends alarming fiscal problems for our health care delivery systems and signification liability problems for our state and local hospitals and jails. Immediate decisive action is needed.

The Bill establishes "Statewide Standards and Requirements" and is an exercise of the State's Police and Health and Welfare powers under our State constitution. Essentially, the Bill does six things:

1. Requires testing of blood and tissue in all banks;

2. Requires reporting of all AIDS infections to the State Health Department and provides clear authority to "track down" previous contacts;

3. Requires testing before issuance of a marriage license;

4. Requires testing of persons convicted of sex crimes;

5. Requires testing of persons involuntarily held in state or local institutions for more than 72 hours; and,

6. Knowingly exposing another person through sexual contact is a Class D felony.

Significant rule-making discretion is given to the Secretary of Health and Welfare to deal with changing circumstances as the AIDS problem evolves. We have drawn heavily upon legislation adopted in Colorado and Illinois in an attempt to provide protection for the general public that is consistent with individual rights. In the final analysis, the greatest good for the greatest number must be our guiding principle.

Jack Steineger
Senator, Sixth District

Senate Public Health & Welfare
January 26, 1988
Attachment 1

Michael D. Brown, RN, BSN
2424 Sunset Court
Topeka, KS 66604
January 26, 1988

SENATE BILL NO. 445 MANDATING HIV TESTING IN CERTAIN SPECIFIC SITUATIONS

Members of the Kansas Senate Public Health and Welfare Committee and staff, my name is Mike Brown. I am a Kansas registered nurse specializing in maternal-child health. I am here today in the role of a self-appointed children's public health advocate.

My testimony primarily pertains to Section 22 of Senate Bill No. 445, dealing with compulsory testing for Human Immunodeficiency Virus (HIV) antibodies in people convicted for sexual offenses under Kansas Statutes. I will focus on possible mandatory HIV testing for sex partners of Kansas girls and boys 17 years old or younger.

HIV infection can lead to Acquired Immune Deficiency Syndrome (AIDS) that, as of January 4, 1988, was fatal to almost 60 percent of the 50,625 Americans diagnosed with that disease. Incidentally, 57 percent of Kansans found to have AIDS during 1987 have already died. Also, the number of state residents diagnosed with AIDS during each of the last four years grew from only 2 in 1984, to 16 during 1985, to 38 in 1986, and to 46 during 1987 (with 14 cases still pending review by the federal Centers for Disease Control).

1. The Governor's Task Force on AIDS, in their December, 1987 report AIDS in Kansas, generally discouraged compulsory testing for HIV.
2. However, according to Kansas Statutes, people are unlawfully exposing many Kansas girls and boys 17 years old or younger to possible sexual transmission of and infection with the AIDS virus through what some people might call sexual child abuse.

a. It is a class E felony, under Kansas Statute 21-3519, to promote sexual

performance by a Kansas child under 18 years old. Yet, according to the Kansas Department of Health and Environment (KDHE), during 1986 over 3,800 Kansas children of both genders 17 years old or younger either were treated for a sexually transmitted disease (STD), had a baby, obtained an induced abortion, or had a stillbirth.

b. It is a class C felony, under Kansas Statute 21-3503, to take indecent sexual liberties with a Kansas child under 16 years old. Still, according to the KDHE, in 1986 almost 800 Kansas male and female children 15 years old or younger either were treated for an STD, had a baby, obtained an induced abortion, or had a stillbirth.

c. It is a class E felony, under Kansas Statute 21-3511, to engage in sexual solicitation of a Kansas child under 12 years old. However, during 1986, according to the KDHE, 39 Kansas girls and boys 11 years old or younger, including 13 only 1-3 years old and 11 just 4-6 years old, were treated for STDs such as incurable herpes plus sterility-causing chlamydia and gonorrhea.

d. The Centers for Disease Control report that at least 69 percent of the 50,625 Americans diagnosed with AIDS probably contracted that disease through sexual activity. The Kansas AIDS Task Force implies that it would not be surprising for any of the above more than 3,800 Kansas children of both genders to be infected already with the AIDS virus. In addition, how many other Kansas male and female children had sexual activity that exposed them to possible infection with HIV during 1986, but those children just did not show up in the above statistics?

e. Almost 1,100 female and over 900 male adult or adolescent Americans who have been found to have AIDS likely were infected through heterosexual

HIV transmission from sexual activity. Nearly 600 U.S. infants and other young children who have been diagnosed with AIDS were probably more innocently infected either in the prenatal period, during childbirth, or from breastfeeding.

3. IF, contrary to the Kansas AIDS Task Force's discouragement of mandatory HIV testing, Kansas public health officials and legislators eventually decide compulsory HIV testing is legal, ethical, justifiable, adequately sensitive and specific, cost-efficient, practical, reasonable, necessary, etc. in certain specific situations, perhaps, analogous to the Kansas AIDS Task Force, they should consider placing emphasis on
   a. the addition of Kansas Statutes 21-3511 and 21-3519 to those relevant statutes already contained in Section 22
   b. mandatory HIV testing for people convicted of sexual offenses when their sex partners of either gender are 17 years old or younger
   c. compulsory HIV testing for the sexual contacts of Kansas male and female children 17 years old or younger who are treated for STDs
   d. mandatory HIV testing for the sex partners of Kansas pregnant girls who are 17 years old or younger.
4. Both a vaccine and a cure for AIDS are projected to be at least 10 years away. As the Kansas AIDS Task Force states, more effectively educating and motivating Kansas boys and girls 17 years old or younger as well as their (potential) sex partners to practice abstinence and other efficacious prevention of HIV infection can reduce (and, theoretically, eliminate) the need for and cost of possible compulsory HIV testing of such children and their sex partners. Kansas' limited funds and manpower for AIDS control might be better utilized on such prophylactic efforts than on

extensive mandatory HIV testing. Such preventive actions taken by parents of children schoolage or younger, older schoolage children's carefully selected peers, health care and education professionals, the clergy, church and youth organizations, the mass media, the business community, and/or other concerned Kansans all working together can better protect children 17 years old or younger from AIDS. Most of those same actions can secondarily help effectively help prevent other STDs, unintended conceptions, and those serious sexual health complications' many significant negative consequences that can last lifelong for Kansas children 17 years old or younger and their families.

Thank you very much for any consideration you give to these remarks concerning compulsory HIV testing and Kansas children of both genders.

Respectfully,

Michael D. Brown

Michael D. Brown, RN, BSN

Male Contraception and AIDS Prevention

The Need for Involvement by Kansas Physicians

M. BROWN, R.N., B.S.N., *Topeka*

HETEROSEXUALLY ACTIVE males have helped to increase the percentage of all Kansas live births that are out of wedlock. Every year since 1959, when it was about 2%, it has risen to approximately 15% (5,818 of 39,418 live births) in 1985.[1] Nationally, more than 600 adult or adolescent males have contracted incurable and usually fatal acquired immune deficiency syndrome (AIDS) through heterosexual contact; through sexual contact, males have given human immunodeficiency virus (HIV) to more than 600 adult or adolescent females who subsequently developed AIDS.[1]

Kansas physicians need to assume an active role in the development of procedures to convince heterosexually active males to practice abstinence and other responsible reversible birth control, and to help the U.S. Surgeon General to persuade such males to practice abstinence and other AIDS prevention more than they do at present.[2] Kansas physicians can utilize their professional authority and personal credibility to assist in educating males on how to choose the best contraception and AIDS prophylaxis methods as well as how to *always* use those methods most effectively.

Background

Kansas needs to improve public policies for the prevention of chronic serious problems related to human reproduction. Females are the focus of almost all birth control efforts, contraception research, and testing of related theories.[3-5] Yet thousands of Kansans annually are joining the ranks of those who are forced to rely heavily on public financial, mental health, and related assistance as a result of pregnancies that were quite possibly unintended.[1] The common outlook for pregnant girls 17 years old or younger, pregnant women past their mid-thirties, marriages following out-of-wedlock pregnancies, and families headed by unmarried females includes the increased possibility of major disappointments.[6]

In 1985, heterosexually active males helped Kansas girls 12-17 years old have 1,477 babies; of those teen and preteen new mothers, 139 (including one 14 years old or younger) had their second babies, 15 had their third babies, and two had their fourth babies. For older Kansas females that year, one who was 18-19 years old had her sixth baby, two who were 20-24 years old had their eighth babies, and one who was 25-29 years had at least her tenth baby. The ages are known for 847 of the males who fathered babies with the 1,477 girls 12-17 years old, and 436 (51%) were at least 20 years old.[1]

In 1985, couples' products of conception were electively aborted for 4,645 Kansas females, including 619 teen and preteen girls 12-17 years old. These abortions involved 516 females during the 14th week of gestation or later, and 114 females for whom it was at least their fourth induced abortion.[1]

In a related vein, AIDS has become an obvious major health threat to Kansans, including heterosexuals. The number of Kansans diagnosed with AIDS during the last three years increased from only two in 1984, to 14 in 1985, to 37 in 1986. Kansas has had AIDS cases contracted through heterosexual transmission in both directions; one very young Kansas child who has AIDS is assumed to have been infected prenatally. Sixty-two per cent of Kansans diagnosed with AIDS during 1986 had died by April 13, 1987.[1]

Since there is no AIDS vaccine, the AIDS problem is serious on a national as well as state basis. Almost 400 infants have contracted AIDS through prenatal infection, and they will probably soon become orphans and die not long after that.[1] Most of the estimated 1-2 million Americans infected with HIV have not developed AIDS, but can nevertheless infect others.[2] Almost anyone infected with another sexually transmitted disease (STD) theoretically can also be infected with AIDS since all STDs, by definition, are spread in a similar manner, and the AIDS incubation period can be as long as nine years.[2] In 1985, for example, 699 Kansas children 3-17 years old were treated for gonorrhea.[1]

Effective Male Contraception

Kansas physicians can help to assure that heterosexually active males, especially those 17 years old or younger and those whose female sex partners are 17 years old or younger, are fully aware of the obvious high contraceptive effectiveness of abstinence as well as their own consequences if their partners have unwanted pregnancies. Nonprescription condoms lubricated on the inside and outside with nonoxynol-9 spermicidal agent had a user failure rate of less than 1% (0.83%) in a study done in 1975. This is less than one-tenth of the 10% user failure rate of nonspermicidal condoms and less than one-half of the 2% user failure rate of widely-used birth control pills. The term "user failure rate" means that for each 100 ordinary users of a specific contraceptive method, the number of pregnancies that will usually occur for those 100 people by the end of the first year of use will be ___(%). Abstinence, condoms, and spermicides carry virtually no risk as compared to birth control pills, intrauterine devices (IUDs), legal induced abortions, and illegal induced abortions.[6]

Effective AIDS Prevention

Kansas physicians can actively advocate abstinence and other "safe sex" practices as elucidated recently by the U.S. Surgeon General.[2] Investigators, including several from the U.S. Public Health Service's Centers for Disease Control and National Institutes of Health, obtained research results that strongly suggest that condoms and the spermicidal agent nonoxynol-9 independently prevent the spread of AIDS.[6-9] Those two AIDS-prophylaxis methods also protect well against incurable herpes and many other major and minor STDs capable of producing grave complications such as sterility.[6, 7, 9] Since 1982, condoms precoated on the inside and outside with a lubricant containing nonoxynol-9 have been marketed in the United States. Physicians can, for example, encourage couples to have the male partner use a spermicidal condom while the female partner uses vaginal foam containing nonoxynol-9 to increase the condom's protection and serve to reinforce STD prevention in case the condom breaks, slips off, or otherwise fails.[6]

Preventive Initiatives

Studies of male birth control and public health recommendations on AIDS prophylaxis indicate approaches that physicians may employ to help increase use of appropriate reversible contraception and STD prophylaxis by heterosexually active males, including several target groups.[2-5, 10, 11] For instance, physicians can help arrange for appropriate posters, brochures, and other patient education materials to be located in or near men's restrooms and locker rooms and offered to university men's dormitories and fraternities, fraternal organizations, men's church groups, women at family planning facilities, and perhaps senior and junior high school students by their parents or with their parents' consent. Physicians can encourage pharmacists who work in drug stores to actively promote public awareness of the noteworthy contraception and AIDS-prophylaxis efficacy of various combinations of abstinence, condoms, spermicides containing nonoxynol-9, and condoms prelubricated with a spermicide containing nonoxynol-9. Recommendations in the previously noted male birth control studies and in AIDS prevention literature suggest other promising approaches that can be employed by physicians.

Summary

Kansas physicians, by promotion of abstinence and other reversible male birth control, can assist in preventing males from helping to produce unintended infants born to teenagers, preteenagers, and single women who genuinely do not yet want to become parents.[6] Physicians can simultaneously help to reduce the spread of deadly AIDS and many other major and minor STDs that otherwise can be expected eventually to touch their own patients, friends, and relatives.

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Preventing AIDS Among Heterosexually Active Males: The Need For More Involvement by Kansas Retail Pharmacists

by M. Brown, R.N., B.S.N.

In the United States, more than 600 adult or adolescent males have contracted incurable and usually fatal acquired immune deficiency syndrome (AIDS) through heterosexual contact; males have transmitted AIDS to over 600 adult or adolescent females through sexual contact.(1) Due to such national epidemiologic history of AIDS, the American Pharmaceutical Association's Policy Committee of Educational Affairs recently advocated continuing education on AIDS for pharmacists so they can join in public health efforts to help prevent the already alarming spread of AIDS.(2)

On the state level, the number of Kansas residents found to have AIDS in the last three years grew from only 2 in 1984, to 14 in 1985, and to 37 in 1986. In 1986 the state's first case due to heterosexual contact occurred.(1) It can be deduced from recent remarks by a leader in Kansas pharmacy that state druggists should help the US Surgeon General convince heterosexually active males to practice abstinence and other AIDS prophylaxis more than they do.(3-5) Kansas retail pharmacists can then use their professional knowledge and personal credibility to help inform such males how to select the most appropriate AIDS prophylaxis methods and how to consistently employ their chosen methods efficaciously.

AIDS Increasing Threat to Kansans

AIDS has become a clear major public health menace to many Kansans. In 1986 the first Kansas pediatric AIDS case occurred.(1) Fifty percent of the Kansans diagnosed as having AIDS during 1986 died by March 16, 1987 and the total increased to sixty-two percent as of April 22, 1987.(1)

Since there is no AIDS vaccine, the need to control the spread of AIDS has also become a national high priority. Most of the approximately one to two million Americans infected with the AIDS virus have not developed signs of AIDS but can still transmit the virus to others.(4) More than 370 American infants have contracted AIDS prenatally; many of these children become orphans soon and die shortly afterward.(1)

Almost any person infected with another sexually transmitted disease (STD) theoretically can simultaneously contract AIDS.(5) The AIDS infection can take as long as nine years to show any symptoms.(4)

Highly Effective AIDS Prevention

Retail pharmacists can actively promote abstinence and other "safe sex" practices stressed recently by the US Surgeon General.(4,5) Researchers, including several from the US Public Health Service's Centers for Disease Control and National Institutes of Health, conducted studies whose findings strongly indicate condoms and the spermicidal agent nonoxynol-9 independently inhibit the transmission of the AIDS virus.(6-9) Those two AIDS prevention methods also provide a strong defense against incurable herpes and many other STDs capable of producing serious complications such as sterility.(6,7,9) Since 1982, condoms precoated with a lubricant containing nonoxynol-9 have been available commercially in the United States.(6) Pharmacists can, for instance, suggest that couples have the male partner use a spermicidal condom while the female partner uses vaginal foam containing nonoxynol-9 to increase the condom's STD prevention effectiveness and serve as backup prophylaxis in case the condom breaks, slips off, or otherwise fails.

Additional Benefits of AIDS Prophylaxis

Retail pharmacists can help insure heterosexually active males, especially ones 17 years old or younger and/or those whose female sex partners are 17 years old or younger, are well informed of the high contraceptive effectiveness of abstinence and many other AIDS prophylaxis measures in secondarily preventing unintended pregnancies.(6) Nonprescription condoms precoated with nonoxynol-9 spermicidal agent had a contraceptive user failure rate of less than one percent (0.83 percent) in research conducted in 1975.(6) That rate is less than one-tenth of the 10 percent user failure rate of nonspermicidal condoms and less than one-half the 2 percent user failure rate of commonly used birth control pills.(6) The term "user failure rate" means that for each 100 typical users who begin a specific birth control method, there will be X percent of pregnancies occurring for those 100 people by the end of the first year of use.(6) Abstinence, condoms, and spermicide are all safe family planning methods compared to birth control pills, the intrauterine device (IUD), and abortion.(6)

Kansas Retail Pharmacists and Other Preventive Actions

Public health recommendations on AIDS prophylaxis and studies on male birth control suggest techniques druggists in the state may utilize to help increase use of abstinence, other prudent STD prophylaxis, and other reversible contraception by heterosexually active males, including several specific categories of males.(6,10-14) For example, Kansas pharmacists can help arrange for

(continued on page 13)

pertinent posters, pamphlets, and other sex education materials to be (a) located in or near men's restrooms and locker rooms and (b)offered to university men's dormitories and fraternity houses, fraternal associations, men's religious groups, women at family planning clinics, and perhaps to male senior and junior high school students by their parents or with their parents' consent. Pharmacists who work in drug stores can (profitably) perform a much needed civic duty, according to the US Surgeon General, by activily promoting more public and medical community awareness of the striking AIDS prophylaxis efficacy—and contraceptive effectiveness— of (a)abstinence plus (b)various combinations of condoms, spermicides containing nonoxynol-9, and condoms precoated with a spermicide containing nonoxynol-9. Clinical implications in AIDS prevention literature and the above male contraception studies suggest other potentially effective techniques that can be implemented by pharmacists.

Conclusion

Retail pharmacists in the state can help noticeably limit the incidence of AIDS and many other STDs. Without such efforts these diseases will eventually affect the lives of customers, friends, and/or relatives directly or indirectly.(4,5) Through the advocacy of abstinence and other reversible male birth control methods, pharmacists can also assist in reducing the number of males who become the fathers of unplanned children.

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Effective Heterosexual AIDS Prevention

By M. Brown, R.N., B.S.N.

The Kansas Department of Health and Environment (KDHE, 1987) reports that the number of state residents diagnosed with acquired immune deficiency syndrome (AIDS) during each of the last three years grew from only 2 in 1984, to 14 during 1985, and to 38 in 1986. The thousands of Kansans annually who either get other sexually transmitted diseases (STDs) or have probably-unplanned conceptions leading to induced abortions or out of wedlock live births can develop significant secondary physical, emotional, and social chronic problems (KDHE, 1986; Public Health service, 1980). Due to the state-wide public health gravity of those and many similar complications resulting from sexual activity, the author will present facts which Kansas nurses should consider as they educate state residents to become more aware of the noteworthy effectiveness of nonprescription spermicidal latex condoms in helping prevent (a) the transmission of AIDS-causing human immunodeficiency virus (HIV), (b) the spread of other STDs, and (c) unintended conceptions.

According to the breakdown of national AIDS data by the U.S. Public Health Service's Center for Disease Control, that disease is increasingly spread among Americans through heterosexual activity (KDHE, 1987). Almost 800 adult or adolescent females and more than 700 adult or adolescent males who have been found to have AIDS likely were infected through heterosexual contact HIV transmission. Even more sadly, over 400 infants and children who have been diagnosed with AIDS were infected perinatally. Yet, the spermicidal latex condom reliably helps prevent such AIDS cases.

The spermicidal latex condom is precoated with a lubricant containing nonoxynol-9, the active ingredient in most vaginal spermicides (Hatcher et al, 1986). Public health and AIDS experts report that both sperm and lymphocytes can be infected with the AIDS virus and serve as vectors to help transmit HIV through sexual contact (Koop, 1986; Voeller, 1986). Based on such reports, the spermicidal latex condom probably helps prevent transmission of the AIDS virus through at least five mechanisms of action: (a) the condom's catching ejaculated sperm, (b) the condom's barring the passage of HIV and even larger lymphocytes through the condom, (c) nonoxynol-9's quickly reducing the percentage of active sperm, (d) nonoxynol-9's rapidly inactivating the AIDS virus itself, and (e) nonoxynol-9's destroying lymphocytes.

Researchers from the Federal Centers for Disease Control (1987) obtained results indicating that the latex condom's physical barrier may help stop the spread of the AIDS virus through sexual intercourse. Investigators found the latex condom to be an effective physical barrier to passage of HIV (Conant et al, 1986; Mann et al, 1987). Dale determined the percentage of motile sperm ejaculated into either condoms coated with nonoxynol-9 or nonspermicidal condoms: by the end of just 30 seconds, there were already just 10.3 percent active sperm in the spermicidal condoms compared to the 55.9 percent still active in the nonspermicidal condoms (Hatcher et al, 1986). Rodgers-Neame et al (1985) obtained similar results. Investigators from the National Centers for Disease Control and the University of Massachusetts Medical Center independently determined that only a 0.05 percent concentration of nonoxynol-9 (at least 100 times more dilute than the 5-or-more percent concentration coating spermicidal latex condoms) quickly inactivated the AIDS virus and decreased the viability of HIV-infected lymphocytes in the laboratory (Hicks et al, 1985; Rietmeijer et al, 1987).

One study indicates that the spermicidal latex condom can help prevent other particular STDs (Judson et al, in press). Other investigators found that the condom by itself provides significant protection against most STDs (Hatcher et al, 1986). Still other researchers determined that spermicides used alone help stop the spread of many STDs (Hatcher et al, 1986).

The birth control user failure rate of spermicidal synthetic condoms was under 1 percent (0.83 percent) in one study — compared to the commonly-cited user failure rates of 10 percent for nonspermicidal condoms and 2 percent for even birth control pills (Hatcher et al, 1986). Those results are indirectly corroborated by two studies cited above (Hatcher et al, 1986; Rodgers-Neame et al, 1985). According to Hatcher et al (1986), the number in the "user failure rate" percentage indicates how many pregnancies will typically occur for each 100 ordinary contraception users by the end of their first year of practicing a specific birth control method. The female sex partner using vaginal spermicidal foam containing nonoxynol-9 while the male sex partner uses a spermicidal condom can also help protect against unintended conceptions as well as AIDS and other STDs — in case the condom slips off, leaks, breaks, or otherwise fails (Hatcher et al, 1986). Both spermicides and condoms have significantly low mortality risks for users compared to illegal induced abortions, legal induced abortions, intrauterine devices (IUDs), and birth control pills (Hatcher et al, 1986).

Both research and other relevant literature strongly suggest that spermicidal latex condoms are effective in helping prevent AIDS, other STDs, and unintended conceptions. Hence, Kansas nurses should consider helping make state residents of all sexual preferences more aware of such facts so Kansans can make more-informed decisions about appropriate and reliable STD prevention and birth control methods.

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2-9

AIDS AND CHILDREN

By: Michael D. Brown, R.N., B.S.N.

During 1986, according to statistics from the Kansas Department of Health and Environment (KDHE, 1987), almost 3,800 Kansas children school age **or younger** either were treated for a sexually transmitted disease (STD), had a baby, or obtained an induced abortion. However, in both May and November 1987 the Kansas State Board of Education voted to require all public schools to offer by September 1988 elective courses on human sexuality that include emphasis on abstinence or other reliable acquired immune deficiency syndrome (AIDS) prophylaxis (Kansas State Department of Education, 1987). As a result, this writer will discuss some ways Kansas nurses can facilitate public schools working with parents to help their children efficaciously prevent such serious health complications from sexual activity.

The Health Belief Model of Rosenstock (1985) postulates that children's advocates take preventive actions against a specific pediatric health disorder when they (a) know children are susceptible to that health disorder, (b) believe that health disorder would have significant negative consequences for children, (c) consider measures to prevent that pediatric health disorder to be effective, (d) perceive that the benefits of preventing that children's health disorder outweigh prevention costs, and (e) conclude they can follow through on the actions required to prevent that pediatric health disorder. This writer will use that model on which to base his suggestions for some ways Kansas nurses can work with public schools to help those schools implement effective programs on reproductive health education that stress abstinence and other dependable protection against AIDS.

Nurses can point out to pertinent community leaders and civic groups that any of the nearly 3,800 Kansas children schoolage or younger who experienced serious health complications from sexual activity may have already been infected with AIDS-causing human immunodeficiency virus (HIV). Statistics show that most Americans found to have usually fatal AIDS became infected with the AIDS virus through sexual activity (KDHE, 1987). So, any of the above children who either were treated for an STD, had a baby, or obtained an induced abortion theoretically could have been infected with HIV at the same time he or she initially developed the above complications from sexual activity. For instance, as of November 1987, almost 900 female and over 800 male adult or adolescent Americans diagnosed with AIDS were probably infected with HIV through heterosexual activity; almost 500 American infants and young children found to have AIDS likely became infected through HIV transmission from their mothers (KDHE, 1987).

Examination of last year's deliveries, induced abortions, and cases of STDs among Kansas children seventeen years old or younger is revealing (KDHE, 1987). Among the 1,546 new schoolage mothers, 2 twelve-year olds had their first babies, 161 schoolage girls had their second babies, 19 schoolage girls had their third babies,and 1 schoolage girl had her fourth baby. Of the 548 girls seventeen years old or younger who had induced abortions, 2 twelve-year-olds had their first abortions, 2 fifteen-year-olds had their second abortions, 5 seventeen-year-olds had their third abortions, and 1 sixteen-year-old had at least her fourth abortion. The following numbers from among the 1,701 children schoolage or younger treated for STDs were in the age groups specified: (a) one-three years, 13; (b) four-six years, 11; (c) seven-nine years, 6; (d) ten-twelve years, 16; (e) thirteen-fifteen years, 373; and (f) sixteen-seventeen years, 1,282.

Nurses must make sure that key citizens and service organizations know that health complications from sexual activity can have a significant negative impact on children (U.S. Public Health Service, 1980). Induced abortions and unplanned babies can cause financial, physical, psychological, educational, vocational, marital, social, and other costs for schoolage children of both sexes and their families that can continue lifelong. STDs, two of which are incurable, can result in (a) sterility for schoolage boys and girls plus (b) other possibly long-term health disorders for girls and their offspring, including infant death.

Nurses can show civic leaders and groups that research suggests sex education in public schools can effectively help parents protect their children from health complications due to sexual activity. Dawson (1986) as well as Marsiglio and Mott (1986) obtained statistically significant results indicating that (a) sex education exposure is positively associated with increased birth control use among adolescents and (b) no relationship exists between taking a sex education course and starting a premarital teenage pregnancy. Furstenberg et al (1985) found that 15- and 16-year-olds who had participated in human sexuality education programs were less likely to have engaged in intercourse than were adolescents who had not participated in such a program.

The Kansas State Board of Education determined that the prevention benefits of sex education in public schools outweigh the costs. They voted on two separate occasions to require public schools to offer elective sex education courses (Kansas State Department of Education, 1987). Nurses can help make clear to Kansas parents of schoolchildren that parents now have the option they can voluntarily exercise to have specially-trained educators help them teach their children about human sexuality, with stress prevention of health complications from sexual activity.

An American School Boards Association publication cites several potentially controversial public school situations in which barriers to AIDS education implementation were gradually overcome successfully (Hooper & Gregory, 1986). Nurses can show relevant community leaders and organizations that careful planning and solicitation of input from local residents with a wide variety of backgrounds can assure that their public schools provide human sexuality education that meets community needs and desires.

This writer has briefly presented a strategy Kansas nurses can use to join public schools in working with parents to help provide their children comprehensive, age-appropriate, and values-centered human sexuality education that emphasizes abstinence and other reliable protection against AIDS, other STDs, and unintended conceptions. This writer strongly urges nurses, first, to read extensively in the area of children's sex education and, then, to work closely with those interested in the education of local school children to help assure that each child and his parents receive the sex education help they desire from public schools (even if they want limited or no help).

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2-10

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Position Statement on AIDS

The Kansas Medical Society recognizes the impact that virally transmitted AIDS and AIDS-related complex have on our state and country. Projected medical and economic concerns increase daily, reflecting the growing number of cases reported to the Centers for Disease Control.

Consistent with KMS policy that all patients should have competent and humane medical care, no patient should be discriminated against or denied medical care on the basis of a known or suspected diagnosis. All physicians and surgeons, nurses, other health care professionals, and hospitals should either render services to patients with AIDS or AIDS-related complex, or promptly refer to another physician who is competent to care for such patients.

In the area of professional and public education, the Kansas Medical Society will strive to keep its members informed by disseminating information on AIDS in a timely manner, to reprint information about AIDS in KANSAS MEDICINE, and to promote continuing education on AIDS to KMS members.

Additionally, KMS will help establish a speakers bureau for health care professionals that can help educate both professionals and lay people concerning AIDS. The Kansas Medical Society also supports appropriate educational efforts which will enable all citizens of Kansas to become informed about AIDS.

In the area of HIV testing, the KMS suggests that testing be: 1) voluntary and with informed consent; 2) that a positive ELISA test be confirmed with a Western Blot test; and 3) that testing be administered only if trained personnel are available for pre- and post-test counselling.

The KMS also adopts by reference the guidelines and recommendations contained in the following Center for Disease Control publications:

1. CDC Recommendations for Control of AIDS and for the Protection of Health Care Workers and Their Patients.

2. CDC Perspectives in Disease Prevention and Health Promotion.

3. CDC Guidelines for the Control of Perinatal Tranmission of HIV.

4. CDC Revision of CDC Surveillance Case Definition for AIDS of August, 1987.

Finally, KMS endorses the recommendations, findings and guidelines for physicians contained in the following AMA reports: 1) AMA Board of Trustees Report YY (A-87); and 2) Council on Ethical and Judicial Affairs Report A (I-87).

REPORT OF THE BOARD OF TRUSTEES

Report: YY
(A-87)

Subject: Prevention and Control of AIDS - An Interim Report

Presented by: Alan R. Nelson, M.D., Chairman

Referred to: Reference Committee E (Alfred J. Clementi, M.D., Chairman)

Introduction

Responding sensitively, intelligently, and effectively to the growing AIDS crisis is one of the crucial public health problems facing the nation. Prevention and control of the disease must be an essential part of that response because there is, at present, no known cure for AIDS patients.

Recommendations in this report have as their foundation an overriding concern for a judicious balance between the well-being of HIV positive patients and the protection of the public health. These recommendations are based upon the best information and data available at present. The AMA will continuously monitor and analyze developments in AIDS and update AMA policy and recommendations as dictated by advances in knowledge.

Education continues to be the major weapon against spread of HIV infection. Physicians should assume the leadership role in educating themselves, their patients and the public. Individuals in society also must assume responsibility for being well-informed and for actions that affect their own health and the health of others. In developing this report, the Board emphasizes the need for concerted and cooperative efforts by all members of society in the fight against AIDS. The recommendations outlined below are designed to help in successfully confronting this challenge to society's well-being.

I. Background

A. The Current Climate

It is estimated that five to ten million people are infected with HIV virus worldwide. AIDS has been reported in more than one hundred countries. In the United States HIV-infected individuals may number one and one-half (1.5) million, approximately 35,000 of whom have been reported to suffer from AIDS and more than 20,000 of whom are dead.

The U.S. Public Health Service has projected that by 1991 there may be 323,000 reported patients with AIDS and as many as 200,000 of them may be dead by that time. In addition, conversion rates of seropositive people to AIDS status now appear to be higher than early preliminary estimates. Originally under 20% were thought to convert. It now appears that, without treatment advances, a much higher percentage will develop the disease.

Seventeen percent of the AIDS cases have been intravenous drug abusers; 66% have been homosexual/bisexual men; 8% have been homosexual male IV drug users; female, heterosexual male, and pediatric victims infected by the transfusion of blood or blood products, sexual contact, or prenatally in the case of infants, account for the bulk of the balance.

Polls indicate that AIDS has become the highest priority health concern of the American public, ahead of heart disease and cancer. It has already caused changes in a variety of public attitudes. Sexual abstinence, monogamous relationships, and the use of condoms are being widely promoted in the media by public officials and many private organizations. IV drug abusers are being counseled to use clean needles and to avoid sharing needles. Education on the sexual transmission of the AIDS virus is being extended to school children. The nation is more sensitive to the rights of those afflicted with the disease to be free from discrimination, regardless of the manner by which they became infected.

B. Historical Control Measures for Infectious Diseases

A primary mode of transmission of AIDS is through sexual contact, and the control efforts for sexually transmitted diseases (STD) that have been instituted in the past are sources of analogies for prevention and control of AIDS. National programs to control STDs were established during the beginning of World War I. For the following 50 years the focus was almost exclusively on the control of syphilis and its complications. During World War II rapid treatment centers for syphilis and gonorrhea were established. Public health officials instituted limited contact-tracing, had the authority to close sex bars and clubs, to order tests for prostitutes, and, most importantly, had effective therapy to offer. Widespread availability of penicillin led to the dissolution of the rapid treatment centers and of the clinical speciality, syphilology. Every state in the Union at one time required all persons seeking marriage licenses to be tested for syphilis. During the 1950s and 1960s federal assistance programs continued to support contact-tracing, serological screening, and patient education.

In the late 1960s public health officials were concerned about the rapidly escalating cases of gonorrhea, and projects were instituted to increase case-finding and contact-tracing. In 1972

financial assistance for STD control by the federal government was dramatically increased and by 1982 gonorrhea accounted for nearly three-fourths of the federal STD dollar. During the 1970s gonorrhea control efforts evolved through overlapping phases that included objectives to lower disease incidence and the occurrence of drug-resistant bacteria, focused screening on high-risk patients, intensified follow-up of treatment failures, and used patient counseling as a means of increasing compliance with therapy and improving contact-tracing. The latter was deemed especially important since the large numbers of gonorrhea cases precluded the intensive follow-up of each infected case that had been characteristic of the syphilis era.

In 1982 the World Health Organization/Pan American Health Organization (WHO/PAHO)identified the following key objectives for intervention to reduce STDs:

1. To minimize disease exposure by reducing sexual intercourse with persons who have a high probability of infection.

2. To prevent infection by increasing the use of condoms or other prophylactic barriers.

3. To detect and cure disease by implementing screening programs, providing effective diagnostic and treatment facilities, and promoting health-seeking behaviors.

4. To limit complications of infections by providing early treatment to symptomatic and asymptomatic infected individuals.

5. To limit disease transmission within the community through the above efforts.

These objectives were used as a framework for the current United States program regarding STDs, which consists of the following components:

1. Health education and promotion.

2. Disease detection through testing and other means.

3. Appropriate treatment.

4. Contact tracing and patient counseling.

5. Clinical services.

6. Training.

7. Research.

C. The Challenge of AIDS Control

It might seem reasonable to extend the experience in preventing the spread of other STD infections to AIDS. The objectives established by WHO/PAHO and the components of the current national STD program are certainly applicable to AIDS. However, AIDS presents a much different social problem than other STD infections. Since there is no cure for AIDS and no protection beyond avoiding or making safer intimate contact with infected individuals, those infected with the virus must be sexually isolated from uninfected persons. A condom barrier offers some but not complete protection. Avoidance of sexual contact and use of shared needles are the only sure protections.

Further, the stigma that accompanies a diagnosis of AIDS, based on fear and society's attitude toward IV drug abusers and homosexuals, presents a factor beyond the control of the infected individual or medicine. An HIV-seropositive individual who might live five years or much longer with no overt health problems, once identified in a community, may be subject to many and varied discriminations--by family and loved ones, by neighbors and friends, by employers and fellow employees, and by other providers of services.

As with prevention and control of all contagious diseases, prevention and control of AIDS involves two, sometimes competing, concerns. First, the person who is afflicted with the disease needs compassionate treatment, and both those who have the disease and those who have been infected with the virus should not be subjected to irrational discrimination based on fear, prejudice or stereotype. Second, and of critical importance, the uninfected must be protected; those individuals who are not infected with the AIDS virus must have every opportunity to avoid transmission of the disease to them.

II. The Need for a National Policy on Aids

Given the growing dimensions of the crisis and given limited national resources, it is imperative that a national policy be developed jointly by the public and private sectors. Such a policy must seek, in a cost-effective way, to achieve fundamental national goals: prevention, treatment, and cure — and adequate research in all three areas. A coherent national approach to this modern killer is needed: a comprehensive blue print for a national response, not piecemeal solutions. Knowledge of the disease is now more than six years old and the growing magnitude of the problem has been apparent for nearly that long.

Such a national policy must have certain characteristics:

- The policy must be comprehensive, proceeding simultaneously on the fronts of prevention, treatment, and research.

- The policy must be coordinated between public and private sectors and between the different levels of government. A national policy does not necessarily mean a federal policy: there are important roles at all levels of the health care systems and at all levels of government. Nor does it necessarily mean uniformity: on certain issues different approaches should be tried to determine efficacy.

- The policy must be carefully balanced. For example, concern for the person with the disease must be balanced with concern for those who do not have the disease but who may become infected. Similarly, careful consideration must be given to directing scarce resources to increased prevention, even as increasingly large resources are necessarily devoted to research and treatment.

- The policy must be based on scientific information and medical judgments. Although policy choices must inevitably be made, they should be formed on the best available information and on the extensive public health experience in dealing both with AIDS and with other contagious diseases.

- The policy should be nonpartisan. Although it may be tempting to play on fears and prejudices, public figures and officials both inside and outside the health community should avoid exploiting the crisis for partisan political advantage.

- The policy should be capable of continuous review and modification as more and better information becomes available.

RECOMMENDATION 1:

A Commission, modeled after the commission which made recommendations on the problems of Social Security financing in the early 1980s, should be constituted with representatives from the Executive branch of the federal government, the Congress, state and local government, and the private sector and directed to develop a consensus position for consideration by the Congress, the Executive, state and local governments and private associations and institutions. The presidential commission announced, but not yet

appointed, by the Administration could be broadened to implement this recommendation. A high-level body with representatives from the different branches and levels of government, but operating to the side of the more formal political processes, may have the best chance of forging the necessary national consensus which can then become the basis for concerted and coordinated action by both the public and private sectors.

III. The Special Role of Physicians and Other Health Care Counselors

Because there is no cure for AIDS, effective preventive techniques are vital. This involves both those who are infected and those who are not. Those who are infected must be identified so that they will not unknowingly transmit the disease to others. Many who are not infected will need to change their behavior substantially to minimize their risk of infection by the AIDS virus.

The key to changed behavior is public education coupled with counseling which must be given by physicians and other health care counselors.

A. Public Awareness

The public is well aware of AIDS in a general sense. The attention of the media has been intensively focused on the disease. Translating general awareness into modifications of behavior is the challenge.

The groups that are most at risk for AIDS, e.g., IV drug abusers, homosexuals, bisexuals, and prostitutes, have reason to know they are at risk. Their contacts, however, may not know they are at risk and hence spouses, unborn babies, and premarital and extramarital sexual partners may become infected. Education and counseling aimed at the high-risk groups must be the first priority. The education should urge immediate counseling with a physician or other health care counselor about the risk of AIDS, the uses of antibody testing and preventive measures.

Also, it must be recognized that persons in these groups may not respond to education and counseling and, when they do not, more aggressive programs—such as expanded methadone maintenance programs or penalties for knowingly exposing others—must be considered.

Education aimed at the more general population is difficult for at least two reasons. First, reaching all Americans with an effective message can be expensive and not all people respond in the same way or to the same method of learning. Messages must therefore be tailored to the target audience in question. Second, preventive messages must necessarily deal with controversial subject matter. Widespread use of the electronic media — especially television —

appears to be the most effective way to reach the general public. Accordingly, public service advertising on the electronic media must be greatly increased and these announcements must be shown at times and in places where they will be viewed by those who need the message most.

The AMA will continue its efforts to place its own public service ads on national television. AMA's Tony Danza public service advertisement (PSA) directed at teenagers about abstinence and condoms, and other PSAs which the networks have agreed to use, are significant first steps. But, more must be done and it must be nationally coordinated.

RECOMMENDATION 2:

The communications industry must develop voluntary guidelines for public service advertising regarding AIDS in consultation with the health care community and government officials. The AMA intends to be a catalyst in this effort to immediately bring the communications and health care communities together.

B. Counseling--And Educating Counselors

Perhaps the greatest need at the present time is effective counseling of both low-risk and high-risk populations by physicians or other health care counselors. A massive education effort for physicians and other counselors is necessary as a first step. Complete and accurate information on the disease, the modes of transmission, the appropriate application of antibody testing, and effective ways to change behavior must be understood by counselors if it is to be properly communicated to patients. In conjunction with face-to-face counseling, printed materials--like the Surgeon General's recent 36-page report on AIDS--should be widely disseminated.

Even more challenging than preparing physicians and others for generic counseling on AIDS is preparing these counselors to assist those who test positive and are infected with the virus. It is at that time that a change of behavior on the part of the person infected is most critical, and it is then that the most sophisticated counseling is required due to the emotional impact of the test results. There is no higher prevention priority than ensuring that the community of individuals who provide health care counseling be given adequate tools to be effective. And the AMA, as the largest organization of physicians in the world, must take a leading role in this undertaking.

RECOMMENDATION 3:

A conference should be immediately held between the AMA, other

physician organizations and public health officials at all levels of government to determine:

1. The types of education and training that are necessary for effective counseling.

2. The people in the health care community who should receive this education and training.

3. The current resources available for such education and training.

4. Recommendations for providing additional resources, including consideration of the respective roles of medical associations and government at all levels.

5. Recommendations on how to update information continually as new scientific data are developed.

6. Recommendations as to alternative measures to prevent the spread of AIDS where education and counseling are not likely to be effective, particularly among IV drug users, through such programs as expanded methadone maintenance.

The AMA will promptly and widely report on the conference findings and assist in the implementation of the conference recommendations.

C. Voluntary and Mandatory Testing

Knowledge that a person is infected with the AIDS virus can be the crucial predicate to changing behavior. Thus, testing for an antibody to the AIDS virus, when used in conjunction with appropriate counseling (and when offered in the context of appropriate anti-discrimination and confidentiality protections discussed below), serves the important public health purpose of providing impetus for behavior changes that minimize the risk of transmitting the AIDS virus.

Clearly, the need for HIV-antibody testing has expanded beyond its original purpose, the screening of blood donors. Guidelines for the appropriate use of HIV-antibody testing must center on the following justifications:

1. To identify infected persons and to offer treatment where possible and to protect uninfected third parties.

2. To offer education and counseling that would modify high risk behavior.

3. To solicit patient cooperation for locating and referring sex partners.

4. To obtain broadened epidemiological statistics on the prevalence of HIV infection in the population.

In addition, in considering the merits of voluntary versus mandatory testing, these facts about AIDS must be kept in mind:

1. AIDS is caused by an infectious agent, and therefore is an infectious disease. Appropriate precautions, procedures, and policies should be applied to protect the community from the spread of the disease.

2. The extent to which the AIDS virus already has spread into the general population is not completely understood. Current projections are based on a number of unverified assumptions.

3. The transmission of the AIDS virus does not occur through casual contacts. Sexual contact, septic intravenous equipment, and the administration of infected blood and blood products are the main modes of transmission.

4. Heterosexual transmission of the AIDS virus, especially from males to females, does occur.

5. Seropositive pregnant females will transmit the virus to their babies in a high percentage of cases.

6. Health care workers, especially those who perform invasive surgical procedures, and emergency room and laboratory personnel, are at some risk when caring for AIDS patients.

7. No patient with a clinical case of AIDS has survived the disease. The disease has been uniformly fatal.

8. The disease, not its victims, is the threat from which society must be protected.

9. The confidentiality of the doctor-patient relationship is vitally important but not absolute.

10. Physicians have an ethical and professional obligation to behave in a scientifically responsible manner.

All of these considerations guided the Board of Trustees as it considered the issues that have been raised by the wide variety of proposals for HIV-antibody testing that are being discussed in society.

General Conclusions

Except for individuals in the limited categories listed in Recommendation 5 below (blood, organ and semen donors, immigrants, military personnel, prison inmates) with regard to whom testing serves well-established and well-accepted protection goals, mandatory national testing should not, at present, be broadly extended.

Military personnel have traditionally been subject to mandatory immunizations and our defense forces, of course, must be as strong as possible. Prison inmates, because they are confined and have a higher incidence of high-risk individuals than the general population, require special protection. Immigrants should be tested so that we can focus on the AIDS problem already here, and the nation certainly has the right to bar entrants with communicable diseases. The need to test donors of blood, organs and semen has never been questioned.

Public health authorities have advanced a plausible premise for their opposition to mandatory testing of homosexuals and drug abusers: such testing will only drive people underground and away from the health care system. Public health authorities also have advanced a premise for not requiring mandatory testing of large segments of the general population, such as all those seeking marriage licenses or all those admitted to hospitals: such testing in low prevalence populations would result in a high proportion of false positives, and would not be cost-effective, given the demand for voluntary testing and the shortage of testing and counseling resources for those who want them voluntarily or who will want them following effective public awareness campaigns.

Until those premises are shown by superior studies to be incorrect, a policy regarding mandatory testing which has been rejected by the vast majority of public health officials, including the Centers for Disease Control and the Surgeon General, cannot be recommended.

But certain high risk groups should be regularly tested, with a right to informed consent and to refuse the test. Those groups are defined in Recommendation 6.

In addition, physicians and other hospital personnel involved in invasive surgical procedures who necessarily and unavoidably come in contact with the blood of patients, need to be aware of their risks. Limited regular testing of patients will assure that the CDC

guidelines for the protection of hospital personnel are followed rigorously and will further assure that all patients receive prompt and full treatment. The Board emphasizes here that physicians have a long and honored tradition of tending to patients afflicted with infectious diseases with compassion and courage. That tradition must and will be continued throughout the AIDS epidemic.

Because the risk to health care personnel will be slight in most areas, any effort at mandatory testing of certain kinds of patients should be instituted after voluntary testing has failed and where a variety of factors, e.g. the costs and availability of proper testing and counseling as measured against the risk presented by the relative presence of a high risk patient population, weigh in favor of mandatory testing.

The AMA does not believe it appropriate at this time to extend regularly offered testing to persons other than those listed, e.g., recommended testing should not be extended to all individuals anywhere who are considering marriage or to all persons in hospitals. Decisions about whether there should be generally recommended testing to other types of individuals should, at this time, be left to the decision of the local community depending on its own circumstances and the judgments of its own public health officials.

At present, each case of AIDS must be reported by the individual physician to state public health authorities either by name or identifier. Anonymous, or if carefully implemented, confidential reporting should also be extended to all confirmed instances of persons infected with AIDS virus but not afflicted with ARC or AIDS. Individuals who are seropositive for the HIV antibody are infected with the virus and can spread the disease as certainly as those with symptoms of AIDS. A sound epidemiologic understanding of the potential impact of AIDS on society requires the reporting of those who are confirmed as testing positive for the antibody to the AIDS virus.

Testing Recommendations

RECOMMENDATION 4:

Tests for the AIDS virus should be readily available to all who wish to be tested. The tests should be routinely subsidized for individuals who cannot afford to pay the cost of their test.

RECOMMENDATION 5:

Testing for the AIDS virus should be mandatory for donors of blood and blood fractions, organs and other tissues intended for transplantation in the U.S. or abroad, for donors of semen or ova collected for artificial insemination or invitro fertilization, for

immigrants to the United States, for inmates in federal and state prisons and for military personnel.

RECOMMENDATION 6:

Voluntary testing should be regularly provided for the following types of individuals who give an informed consent:

1. Patients at sexually transmitted disease clinics.

2. Patients at drug abuse clinics.

3. Pregnant women in high risk areas in the first trimester of pregnancy.

4. Individuals who are from areas with a high incidence of AIDS or who engage in high-risk behavior seeking family planning services.

5. Patients who are from areas with a high incidence of AIDS or who engage in high risk behavior requiring surgical or other invasive procedures. If the voluntary policy is not sufficiently accepted, the hospital and medical staff should consider a mandatory program for the institution.

RECOMMENDATION 7:

As a matter of medical judgment, physicians should encourage voluntary HIV testing for individuals whose history or clinical status warrant this measure.

RECOMMENDATION 8:

Individuals who are found to be seropositive for the AIDS virus should be reported to appropriate public health officials on an anonymous or confidential basis with enough information to be epidemiologically significant.

RECOMMENDATION 9:

Physicians should counsel patients before tests for AIDS to educate them about effective behaviors to avoid the risk of AIDS for themselves and others. In public screening programs, counseling may be done in whatever form is appropriate given the resources and personnel available as long as effective counseling is provided.

RECOMMENDATION 10:

Physicians should counsel their patients who are found to be seropositive regarding (a) responsible behavior to prevent the spread of the disease, (b) strategies for health protection with a

compromised immune system, and (c) the necessity of alerting sexual contacts, past (5-10 years) and present, regarding their possible infection by the AIDS virus. Long-term emotional support should be provided or arranged for seropositive individuals.

RECOMMENDATION 11:

Patients should knowingly and willingly give consent before a voluntary test is conducted.

IV. Resources

Only recently has Congress and the Administration begun to seriously consider the vast resources needed to deal effectively with AIDS. Federal funding for 1988 is expected to reach $1 billion. But that amount will not be enough. The AMA endorses the bill introduced by Congressman Waxman to increase resources for testing and counseling.

Testing for the HIV virus in America will require substantially more resources than are currently being made available. Trained counselors, materials for counseling, and research on effective counseling approaches, for the variety of population groups that need these services, are urgently required. Also, dependable testing facilities with sufficient capacity to respond to the epidemic are needed now. In addition, funds for research and care must be increased to fully exploit the nation's capacity to respond effectively to this crisis.

The key premise of a prevention strategy, when there is no vaccine, is behavioral change on the part of those infected and those at risk of infection by AIDS virus. It is therefore crucial that there be immediate and systematic studies conducted of how behavior of affected groups may have changed in recent years, and if possible, what factors caused the changes. Most particularly, it is necessary to study and evaluate the types of counseling that have been effective so that the techniques may be replicated widely. There can be little question that in a free society suasion and voluntary change, if effective, are far preferable to compulsion.

RECOMMENDATION 12:

Public funding must be provided in an amount sufficient (1) to promptly and efficiently counsel and test for AIDS (2) to conduct the research necessary to find a cure and develop an effective vaccine, (3) to perform studies to evaluate the efficiency of counseling and education programs on changing behavior and (4) to assist in the care of AIDS patients who cannot afford proper care or who cannot find appropriate facilities for treatment and care.

V. Protection Against Discrimination

A. Anti-Discrimination

The AMA believes strongly that AIDS victims and those who test positively for the antibody to the AIDS virus should not be treated unfairly or suffer from arbitrary or irrational discrimination in their daily lives. Last year, the AMA filed a friend of the court brief in School Board of Nassau County v. Arline, a case before the Supreme Court which addressed the question of how the federal handicapped anti-discrimination laws should apply to persons afflicted with contagious diseases. The AMA set forth a framework for the application of the law which the Supreme Court adopted, quoting verbatim from the AMA brief in its key holding.

A sound anti-discrimination approach does not allow reflexive discrimination against AIDS victims based on fear or stereotype or prejudice. Nor does it require that all employers or other federal fund recipients automatically accommodate a person afflicted with a communicable disease. Instead, based on an individualized analysis of the nature and duration of the handicap and the nature and duration of the communicability, a federal fund recipient must make a reasonable accommodation based on reasonable medical judgments, given the state of medical knowledge at the time. This sound framework for carefully balancing the two competing concerns -- the right of the victim to be free from irrational acts of prejudice and the right of others to be protected against an unreasonable risk from disease -- should also guide state anti-discrimination efforts.

A key question left open by the Supreme Court is whether a person who is not afflicted with AIDS or AIDS Related Complex, but who nonetheless tests positive for the antibody, is protected by the federal anti-discrimination law.

In order to encourage people to seek counseling, and testing if necessary, the AMA strongly urges that anti-discrimination laws at both the federal and state levels be clarified either by regulatory interpretation or statutory amendment to cover those who test HIV antibody positive. Allowing irrational discrimination against those who test positive serves no useful purpose: it only has the destructive effect of removing those who are otherwise productive members of society from the work force or otherwise denying them access to an important aspect of normal life. While the federal law should continue to apply only to federal fund recipients, state laws should be sought to prevent irrational discrimination by entities or individuals within those jurisdictions.

RECOMMENDATION 13:

Anti-discrimination laws must be clarified or amended to cover those who test positive for the antibodies to the AIDS virus.

B. Confidentiality

The ability of the health care community to maintain the confidentiality of patient information and restrict its use to only those purposes essential for maintenance of health is, like clarification of anti-discrimination laws, vital to an effective program of preventing and controlling AIDS. Even if anti-discrimination laws were completely effective, which unfortunately is not likely, persons who test positive (such as those with ARC or AIDS), will suffer stigma. Thus, confidentiality is crucial.

The basic principle should be that access to patient information should be limited only to health care personnel who have a legitimate need to have access to the information in order to assist the patient or to protect the health of others closely associated with the patient.

As with anti-discrimination laws, laws protecting the confidentiality of patient information should be on both federal and state agendas.

RECOMMENDATION 14:

Model confidentiality laws must be drafted which can be adopted at all levels of government to encourage as much uniformity as possible in protecting the identity of AIDS patients and carriers, except where the public health requires otherwise.

V. Questions for the Future

As the national debate on prevention and control of AIDS continues, other important issues will need to be addressed.

A. Research and Data

There is an urgent and critical need for more scientifically sound data on the prevalence and spread of virus in the general population. At the present time only those cases that meet the current CDC surveillance definition of AIDS are reported to that institution. Since AIDS is the terminal and fatal stage of HIV-infection, it represents only the tip of the huge HIV-infection iceberg. There are protean manifestations of HIV-infection ranging from infected asymptomatic to full-blown AIDS. How large the base of that iceberg really is—that is, how many people are actually infected—can only be estimated from the number of reported AIDS cases. That has been done by using a multiple (50 to 100 times the number of AIDS cases) that has been extracted largely from surveys done in high-prevalence areas. Yet this same multiple has been used to estimate the number of current and potential HIV-infected persons in low-prevalence areas and for that matter the entire country and even the world. The CDC itself is unsure about the accuracy of its

estimates. Yet if economic and medical plans are to be made for the future, reliable projections must be available. How sufficient or exaggerated these plans may be depends upon the accuracy of current and future estimates of HIV-infected persons, particularly as to the extent of its spread into the low-risk heterosexual population.

Not only are accurate estimates of HIV-infected persons needed, but so too are reliable data on the rate conversion of asymptomatic seropositive persons to clinical illness, including AIDS, that requires increased medical care. This information is important for the formulation of plans for the future cases of potentially hospitalizable patients and the economic consideration thereof. HIV-infection has protean manifestations and death can result not only from AIDS itself, but from severe ARC or progressive CNS disease as well. In order to obtain accurate information in HIV infected persons on the rate of conversion from asymptomatic to clinically severe illness, baseline data on their serologic status must be obtained as early as possible--not after clinically manifest disease is present. The presence of HIV antibodies indicates not only current infection with the virus, but also that the patient is potentially capable of transmitting the disease. This follows from the fact that HIV integrates its genome into the host cell genome with the result that once infected, the patient remains infected for life and is, therefore, capable of life-long transmission of the agent. The earlier the infected person is detected, the earlier he or she may be advised of this contagious state and counseled on how to avoid further transmission of this lethal virus.

RECOMMENDATION 15:

Consistent with the proposal by the Secretary of Health and Human Services, a national study in various areas of the country must be immediately undertaken to determine the prevalence and conversion rate of the virus in the United States population, and the study must be repeated at appropriate intervals to gauge the spread of the disease.

B. Warning to Third Parties

One of the more difficult issues for society is how to warn unsuspecting spouses or sexual partners of persons who test HIV positive. Such a warning would allow the third party to practice "safer" sex or to abstain from sexual relations with the infected person altogether. Given the life-or-death consequences, the unsuspecting third party should, as a general matter, be warned because there is no cure and because it may not be responsible to rely solely on the infected person to provide a suitable warning.

Physicians who have reason to believe that there is an unsuspecting sexual partner of an infected individual should be encouraged to inform public health authorities. The duty to warn

the unsuspecting sexual partner should then reside in the public health authorities as well as the infected person and not in the physician to the infected person.

The AMA believes that mechanisms, analogous to those used by public health authorities to warn sexual partners about other sexually transmitted diseases, should be put in place to warn unsuspecting third parties about an infected sexual partner. Such warning may be appropriate whether the infected person is bisexual, heterosexual or homosexual.

This problem raises the general question of whether anonymous reporting should continue to be the standard for persons who test seropositive. Our recommendation at this time is limited to situations where physicians or health officials already know the identity of the AIDS carrier and have reason to believe a risk to third parties exists.

RECOMMENDATION 16:

Specific statutes must be drafted which, while protecting to the greatest extent possible the confidentiality of patient information, (a) provide a method for warning unsuspecting sexual partners, (b) protect physicians from liability for failure to warn the unsuspecting third party but (c) establish clear standards for when a physician should inform the public health authorities, and (d) provide clear guidelines for public health authorities who need to trace the unsuspecting sexual partners of the infected person.

C. Sanctions for Reckless Disregard for the Safety of Others

A related question which must be explored is whether an infected person, who knows he or she is infected and who knowingly fails to warn a sexual partner of the infection, should be subject not just to tort suits, but to a proceeding brought by state authorities to sanction the individual.

RECOMMENDATION 17:

Given the risk of infection being transmitted sexually, and given the dire potential consequences of transmission, serious consideration should be given to sanctions, at least in circumstances where an unsuspecting sexual partner subsequently finds out about a partner's infection and brings a complaint to the attention of authorities. Pre-emptive sanctions are not being endorsed by this recommendation.

CONCLUSION

The Board intends to review its evaluation of the developing AIDS epidemic on a constant basis. Modifications of the AMA's positions will be made as the situation warrants.

REPORT OF THE COUNCIL ON ETHICAL AND JUDICIAL AFFAIRS

Report: A
(I-87)

Subject: Ethical Issues Involved in the Growing AIDS Crisis

Presented by: John H. Burkhart, M.D., Chairman

Referred to: Reference Committee on Amendments to Constitution and Bylaws
(Julius Michaelson, M.D., Chairman)

The Council on Ethical and Judicial Affairs of the American Medical Association recognizes the growing AIDS crisis as a crucial health problem involving the physician's ethical responsibility to his patients and to society. The House of Delegates adopted Report YY (A-87) of the Board of Trustees which provides excellent guidance for a responsible public policy. As stated therein, AIDS patients are entitled to competent medical service with compassion and respect for human dignity and to the safeguard of their confidences within the constraints of the law. Those persons who are afflicted with the disease or who are seropositive have the right to be free from discrimination.

A physician may not ethically refuse to treat a patient whose condition is within the physician's current realm of competence solely because the patient is seropositive. The tradition of the American Medical Association, since its organization in 1847, is that: "when an epidemic prevails, a physician must continue his labors without regard to the risk to his own health." (See Principles of Medical Ethics, 1847, 1903, 1912, 1947, 1955). That tradition must be maintained. A person who is afflicted with AIDS needs competent, compassionate treatment. Neither those who have the disease nor those who have been infected with the virus should be subjected to discrimination based on fear or prejudice, least of all by members of the health care community. Physicians should respond to the best of their abilities in cases of emergency where first aid treatment is essential, and physicians should not abandon patients whose care they have undertaken. (See Section 8.10 of Current Opinions of the Council on Ethical and Judicial Affairs of the American Medical Association, 1986).

Principle VI of the 1980 Principles of Medical Ethics states that "A physician shall in the provision of appropriate patient care, except in emergencies, be free to choose whom to serve, with whom to associate and the environment in which to provide medical services." The Council has always interpreted this Principle as not

supporting illegal or invidious discrimination. (See Section 9.11 of Current Opinions, 1986). Thus, it is the view of the Council that Principle VI does not permit categorical discrimination against a patient based solely on his or her seropositivity. A physician who is not able to provide the services required by persons with AIDS should make an appropriate referral to those physicians or facilities that are equipped to provide such services.

At its 1987 Annual Meeting, the House of Delegates adopted Substitute Resolution 18 which asked the Council on Ethical and Judicial Affairs to address "the patient confidentiality and ethical issues raised by known HIV antibody positive patients who refuse to inform their sexual partners or modify their behavior." Physicians have a responsibility to prevent the spread of contagious diseases, as well as an ethical obligation to recognize the rights to privacy and to confidentiality of the AIDS victim. These rights are absolute until they infringe in a material way on the safety of another person or persons. Those who are not infected with the virus are entitled to protection from transmission of the disease. Thus, the societal need for accurate information and public health surveillance must also be respected. As the Board of Trustees stated in Report YY (A-87), "A sound epidemiologic understanding of the potential impact of AIDS on society requires the reporting [on an anonymous or confidential basis to public health authorities] of those who are confirmed as testing positive for the antibody to the AIDS virus."

In those jurisdictions in which the reporting of individuals infected with the AIDS virus to public health authorities is not mandated, a physician who knows that a seropositive patient is endangering a third party faces a dilemma. The physician should attempt to persuade the infected individual to refrain from activities that might result in further transmission of the disease. When rational persuasion fails, authorities should be notified so that they can take appropriate measures to protect third parties. Ordinarily, this action will fulfill the physician's duty to warn third parties; in unusual circumstances when all else fails, a physician may have a common law duty to warn endangered third parties. However, notification of any third party, including public health authorities without the consent of the patient may be precluded by statutes in certain states. Therefore, the Council reiterates and strongly endorses Recommendations 16 and 17 of Board Report YY (A-87). They are:

RECOMMENDATION 16:

Specific statutes must be drafted which, while protecting to the greatest extent possible the confidentiality of patient information, (a) provide a method for warning unsuspecting sexual

> partners, (b) protect physicians from liability for failure to warn the unsuspecting third party but, (c) establish clear standards for when a physician should inform the public health authorities, and (d) provide clear guidelines for public health authorities who need to trace the unsuspecting sexual partners of the infected person.
>
> RECOMMENDATION 17:
>
> Given the risk of infection being transmitted sexually, and given the dire potential consequences of transmission, serious consideration should be given to sanctions, at least in circumstances where an unsuspecting sexual partner subsequently finds out about a partner's infection and brings a complaint to the attention of authorities. Pre-emptive sanctions are not being endorsed by this recommendation.

The civil rights and liberties of those who are infected with the AIDS virus, as well as those who are not, are entitled to protection. The ethical challenge to the medical profession is to maintain a judicious balance in this regard, including the issue of whether physicians who are HIV-infected must inform their patients or whether they may continue in patient care at all. The Council's new opinion on PHYSICIANS AND INFECTIOUS DISEASES is:

> A physician who knows that he or she has an infectious disease should not engage in any activity that creates a risk of transmission of the disease to others.

In the context of the AIDS crisis, the application of the Council's opinion depends on the activity in which the physician wishes to engage.

The Council on Ethical and Judicial Affairs reiterates and reaffirms the AMA's strong belief that AIDS victims and those who are seropositive should not be treated unfairly or suffer from discrimination. However, in the special context of the provision of medical care, the Council believes that if a risk of transmission of an infectious disease from a physician to a patient exists, disclosure of that risk to patients is not enough; patients are entitled to expect that their physicians will not increase their exposure to the risk of contracting an infectious disease, even minimally. If no risk exists, disclosure of the physician's medical condition to his or her patients will serve no rational purpose; if a risk does exist, the physician should not engage in the activity.

The Council recommends that the afflicted physician disclose his or her condition to colleagues who can assist in the individual assessment of whether the physician's medical condition or the proposed activity poses any risk to patients. There may be an occasion when a patient who is fully informed of the physician's condition and the risks that condition presents may choose to continue his or her care with the seropositive physician. Great care must be exercised to assure that true informed consent is obtained.

In summary, the Council on Ethical and Judicial Affairs believes that:

- A physician may not ethically refuse to treat a patient whose condition is within the physician's current realm of competence solely because the patient is seropositive. Persons who are seropositive should not be subjected to discrimination based on fear or prejudice.

- Physicians are dedicated to providing competent medical service with compassion and respect for human dignity.

- Physicians who are unable to provide the services required by AIDS patients should make referrals to those physicians or facilities equipped to provide such services.

- Physicians are ethically obligated to respect the rights of privacy and of confidentiality of AIDS patients and seropositive individuals.

- Where there is no statute that mandates or prohibits the reporting of seropositive individuals to public health authorities and a physician knows that a seropositive individual is endangering a third party, the physician should: (1) attempt to persuade the infected patient to cease endangering the third party; (2) if persuasion fails, notify authorities; and (3) if the authorities take no action, notify the endangered third party.

- A physician who knows that he or she is seropositive should not engage in any activity that creates a risk of transmission of the disease to others.

- A physician who has AIDS or who is seropositive should consult colleagues as to which activities the physician can pursue without creating a risk to patients.

The Council on Ethical and Judicial Affairs requests that this report be filed.

CENTERS FOR DISEASE CONTROL

August 21, 1987 / Vol. 36 / No. 2S

MMWR

Supplement

MORBIDITY AND MORTALITY WEEKLY REPORT

Recommendations for Prevention of HIV Transmission in Health-Care Settings

U. S. Department of Health and Human Services
Public Health Service
Centers for Disease Control
Atlanta, Georgia 30333

Attachment 1
3-22

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Recommendations for Prevention of HIV Transmission in Health-Care Settings

Introduction

Human immunodeficiency virus (HIV), the virus that causes acquired immunodeficiency syndrome (AIDS), is transmitted through sexual contact and exposure to infected blood or blood components and perinatally from mother to neonate. HIV has been isolated from blood, semen, vaginal secretions, saliva, tears, breast milk, cerebrospinal fluid, amniotic fluid, and urine and is likely to be isolated from other body fluids, secretions, and excretions. However, epidemiologic evidence has implicated only blood, semen, vaginal secretions, and possibly breast milk in transmission.

The increasing prevalence of HIV increases the risk that health-care workers will be exposed to blood from patients infected with HIV, especially when blood and body-fluid precautions are not followed for all patients. Thus, this document emphasizes the need for health-care workers to consider all patients as potentially infected with HIV and/or other blood-borne pathogens and to adhere rigorously to infection-control precautions for minimizing the risk of exposure to blood and body fluids of all patients.

The recommendations contained in this document consolidate and update CDC recommendations published earlier for preventing HIV transmission in health-care settings: precautions for clinical and laboratory staffs (*1*) and precautions for health-care workers and allied professionals (*2*); recommendations for preventing HIV transmission in the workplace (*3*) and during invasive procedures (*4*); recommendations for preventing possible transmission of HIV from tears (*5*); and recommendations for providing dialysis treatment for HIV-infected patients (*6*). These recommendations also update portions of the "Guideline for Isolation Precautions in Hospitals" (*7*) and reemphasize some of the recommendations contained in "Infection Control Practices for Dentistry" (*8*). The recommendations contained in this document have been developed for use in health-care settings and emphasize the need to treat blood and other body fluids from all patients as potentially infective. These same prudent precautions also should be taken in other settings in which persons may be exposed to blood or other body fluids.

Definition of Health-Care Workers

Health-care workers are defined as persons, including students and trainees, whose activities involve contact with patients or with blood or other body fluids from patients in a health-care setting.

Health-Care Workers with AIDS

As of July 10, 1987, a total of 1,875 (5.8%) of 32,395 adults with AIDS, who had been reported to the CDC national surveillance system and for whom occupational information was available, reported being employed in a health-care or clinical laboratory setting. In comparison, 6.8 million persons—representing 5.6% of the U.S. labor force—were employed in health services. Of the health-care workers with AIDS, 95% have been reported to exhibit high-risk behavior; for the remaining 5%, the means of HIV acquisition was undetermined. Health-care workers with AIDS were significantly more likely than other workers to have an undetermined risk (5% versus 3%, respectively). For both health-care workers and non-health-care workers with AIDS, the proportion with an undetermined risk has not increased since 1982.

AIDS patients initially reported as not belonging to recognized risk groups are investigated by state and local health departments to determine whether possible risk factors exist. Of all health-care workers with AIDS reported to CDC who were initially characterized as not having an identified risk and for whom follow-up information was available, 66% have been reclassified because risk factors were identified or because the patient was found not to meet the surveillance case definition for AIDS. Of the 87 health-care workers currently categorized as having no identifiable risk, information is incomplete on 16 (18%) because of death or refusal to be interviewed; 38 (44%) are still being investigated. The remaining 33 (38%) health-care workers were interviewed or had other follow-up information available. The occupations of these 33 were as follows: five physicians (15%), three of whom were surgeons; one dentist (3%); three nurses (9%); nine nursing assistants (27%); seven housekeeping or maintenance workers (21%); three clinical laboratory technicians (9%); one therapist (3%); and four others who did not have contact with patients (12%). Although 15 of these 33 health-care workers reported parenteral and/or other non-needlestick exposure to blood or body fluids from patients in the 10 years preceding their diagnosis of AIDS, none of these exposures involved a patient with AIDS or known HIV infection.

Risk to Health-Care Workers of Acquiring HIV in Health-Care Settings

Health-care workers with documented percutaneous or mucous-membrane exposures to blood or body fluids of HIV-infected patients have been prospectively evaluated to determine the risk of infection after such exposures. As of June 30, 1987, 883 health-care workers have been tested for antibody to HIV in an ongoing surveillance project conducted by CDC (*9*). Of these, 708 (80%) had percutaneous exposures to blood, and 175 (20%) had a mucous membrane or an open wound contaminated by blood or body fluid. Of 396 health-care workers, each of whom had only a convalescent-phase serum sample obtained and tested ≥90 days post-exposure, one—for whom heterosexual transmission could not be ruled out—was seropositive for HIV antibody. For 425 additional health-care workers, both acute- and convalescent-phase serum samples were obtained and tested; none of 74 health-care workers with nonpercutaneous exposures seroconverted, and three (0.9%) of 351

with percutaneous exposures seroconverted. None of these three health-care workers had other documented risk factors for infection.

Two other prospective studies to assess the risk of nosocomial acquisition of HIV infection for health-care workers are ongoing in the United States. As of April 30, 1987, 332 health-care workers with a total of 453 needlestick or mucous-membrane exposures to the blood or other body fluids of HIV-infected patients were tested for HIV antibody at the National Institutes of Health (*10*). These exposed workers included 103 with needlestick injuries and 229 with mucous-membrane exposures; none had seroconverted. A similar study at the University of California of 129 health-care workers with documented needlestick injuries or mucous-membrane exposures to blood or other body fluids from patients with HIV infection has not identified any seroconversions (*11*). Results of a prospective study in the United Kingdom identified no evidence of transmission among 150 health-care workers with parenteral or mucous-membrane exposures to blood or other body fluids, secretions, or excretions from patients with HIV infection (*12*).

In addition to health-care workers enrolled in prospective studies, eight persons who provided care to infected patients and denied other risk factors have been reported to have acquired HIV infection. Three of these health-care workers had needlestick exposures to blood from infected patients (*13-15*). Two were persons who provided nursing care to infected persons; although neither sustained a needlestick, both had extensive contact with blood or other body fluids, and neither observed recommended barrier precautions (*16,17*). The other three were health-care workers with non-needlestick exposures to blood from infected patients (*18*). Although the exact route of transmission for these last three infections is not known, all three persons had direct contact of their skin with blood from infected patients, all had skin lesions that may have been contaminated by blood, and one also had a mucous-membrane exposure.

A total of 1,231 dentists and hygienists, many of whom practiced in areas with many AIDS cases, participated in a study to determine the prevalence of antibody to HIV; one dentist (0.1%) had HIV antibody. Although no exposure to a known HIV-infected person could be documented, epidemiologic investigation did not identify any other risk factor for infection. The infected dentist, who also had a history of sustaining needlestick injuries and trauma to his hands, did not routinely wear gloves when providing dental care (*19*).

Precautions To Prevent Transmission of HIV

Universal Precautions

Since medical history and examination cannot reliably identify all patients infected with HIV or other blood-borne pathogens, blood and body-fluid precautions should be consistently used for all patients. This approach, previously recommended by CDC (*3,4*), and referred to as "universal blood and body-fluid precautions" or "universal precautions," should be used in the care of all patients, especially including those in emergency-care settings in which the risk of blood exposure is increased and the infection status of the patient is usually unknown (*20*).

1. All health-care workers should routinely use appropriate barrier precautions to prevent skin and mucous-membrane exposure when contact with blood or other body fluids of any patient is anticipated. Gloves should be worn for touching blood and body fluids, mucous membranes, or non-intact skin of all patients, for handling items or surfaces soiled with blood or body fluids, and for performing venipuncture and other vascular access procedures. Gloves should be changed after contact with each patient. Masks and protective eyewear or face shields should be worn during procedures that are likely to generate droplets of blood or other body fluids to prevent exposure of mucous membranes of the mouth, nose, and eyes. Gowns or aprons should be worn during procedures that are likely to generate splashes of blood or other body fluids.
2. Hands and other skin surfaces should be washed immediately and thoroughly if contaminated with blood or other body fluids. Hands should be washed immediately after gloves are removed.
3. All health-care workers should take precautions to prevent injuries caused by needles, scalpels, and other sharp instruments or devices during procedures; when cleaning used instruments; during disposal of used needles; and when handling sharp instruments after procedures. To prevent needlestick injuries, needles should not be recapped, purposely bent or broken by hand, removed from disposable syringes, or otherwise manipulated by hand. After they are used, disposable syringes and needles, scalpel blades, and other sharp items should be placed in puncture-resistant containers for disposal; the puncture-resistant containers should be located as close as practical to the use area. Large-bore reusable needles should be placed in a puncture-resistant container for transport to the reprocessing area.
4. Although saliva has not been implicated in HIV transmission, to minimize the need for emergency mouth-to-mouth resuscitation, mouthpieces, resuscitation bags, or other ventilation devices should be available for use in areas in which the need for resuscitation is predictable.
5. Health-care workers who have exudative lesions or weeping dermatitis should refrain from all direct patient care and from handling patient-care equipment until the condition resolves.
6. Pregnant health-care workers are not known to be at greater risk of contracting HIV infection than health-care workers who are not pregnant; however, if a health-care worker develops HIV infection during pregnancy, the infant is at risk of infection resulting from perinatal transmission. Because of this risk, pregnant health-care workers should be especially familiar with and strictly adhere to precautions to minimize the risk of HIV transmission.

Implementation of universal blood and body-fluid precautions for all patients eliminates the need for use of the isolation category of "Blood and Body Fluid Precautions" previously recommended by CDC (7) for patients known or suspected to be infected with blood-borne pathogens. Isolation precautions (e.g., enteric, "AFB" [7]) should be used as necessary if associated conditions, such as infectious diarrhea or tuberculosis, are diagnosed or suspected.

Precautions for Invasive Procedures

In this document, an invasive procedure is defined as surgical entry into tissues, cavities, or organs or repair of major traumatic injuries 1) in an operating or delivery

room, emergency department, or outpatient setting, including both physicians' and dentists' offices; 2) cardiac catheterization and angiographic procedures; 3) a vaginal or cesarean delivery or other invasive obstetric procedure during which bleeding may occur; or 4) the manipulation, cutting, or removal of any oral or perioral tissues, including tooth structure, during which bleeding occurs or the potential for bleeding exists. The universal blood and body-fluid precautions listed above, combined with the precautions listed below, should be the minimum precautions for all such invasive procedures.

1. All health-care workers who participate in invasive procedures must routinely use appropriate barrier precautions to prevent skin and mucous-membrane contact with blood and other body fluids of all patients. Gloves and surgical masks must be worn for all invasive procedures. Protective eyewear or face shields should be worn for procedures that commonly result in the generation of droplets, splashing of blood or other body fluids, or the generation of bone chips. Gowns or aprons made of materials that provide an effective barrier should be worn during invasive procedures that are likely to result in the splashing of blood or other body fluids. All health-care workers who perform or assist in vaginal or cesarean deliveries should wear gloves and gowns when handling the placenta or the infant until blood and amniotic fluid have been removed from the infant's skin and should wear gloves during post-delivery care of the umbilical cord.
2. If a glove is torn or a needlestick or other injury occurs, the glove should be removed and a new glove used as promptly as patient safety permits; the needle or instrument involved in the incident should also be removed from the sterile field.

Precautions for Dentistry*

Blood, saliva, and gingival fluid from all dental patients should be considered infective. Special emphasis should be placed on the following precautions for preventing transmission of blood-borne pathogens in dental practice in both institutional and non-institutional settings.

1. In addition to wearing gloves for contact with oral mucous membranes of all patients, all dental workers should wear surgical masks and protective eyewear or chin-length plastic face shields during dental procedures in which splashing or spattering of blood, saliva, or gingival fluids is likely. Rubber dams, high-speed evacuation, and proper patient positioning, when appropriate, should be utilized to minimize generation of droplets and spatter.
2. Handpieces should be sterilized after use with each patient, since blood, saliva, or gingival fluid of patients may be aspirated into the handpiece or waterline. Handpieces that cannot be sterilized should at least be flushed, the outside surface cleaned and wiped with a suitable chemical germicide, and then rinsed. Handpieces should be flushed at the beginning of the day and after use with each patient. Manufacturers' recommendations should be followed for use and maintenance of waterlines and check valves and for flushing of handpieces. The same precautions should be used for ultrasonic scalers and air/water syringes.

*General infection-control precautions are more specifically addressed in previous recommendations for infection-control practices for dentistry (*8*).

3-28

3. Blood and saliva should be thoroughly and carefully cleaned from material that has been used in the mouth (e.g., impression materials, bite registration), especially before polishing and grinding intra-oral devices. Contaminated materials, impressions, and intra-oral devices should also be cleaned and disinfected before being handled in the dental laboratory and before they are placed in the patient's mouth. Because of the increasing variety of dental materials used intra-orally, dental workers should consult with manufacturers as to the stability of specific materials when using disinfection procedures.
4. Dental equipment and surfaces that are difficult to disinfect (e.g., light handles or X-ray-unit heads) and that may become contaminated should be wrapped with impervious-backed paper, aluminum foil, or clear plastic wrap. The coverings should be removed and discarded, and clean coverings should be put in place after use with each patient.

Precautions for Autopsies or Morticians' Services

In addition to the universal blood and body-fluid precautions listed above, the following precautions should be used by persons performing postmortem procedures:

1. All persons performing or assisting in postmortem procedures should wear gloves, masks, protective eyewear, gowns, and waterproof aprons.
2. Instruments and surfaces contaminated during postmortem procedures should be decontaminated with an appropriate chemical germicide.

Precautions for Dialysis

Patients with end-stage renal disease who are undergoing maintenance dialysis and who have HIV infection can be dialyzed in hospital-based or free-standing dialysis units using conventional infection-control precautions (*21*). Universal blood and body-fluid precautions should be used when dialyzing all patients.

Strategies for disinfecting the dialysis fluid pathways of the hemodialysis machine are targeted to control bacterial contamination and generally consist of using 500-750 parts per million (ppm) of sodium hypochlorite (household bleach) for 30-40 minutes or 1.5%-2.0% formaldehyde overnight. In addition, several chemical germicides formulated to disinfect dialysis machines are commercially available. None of these protocols or procedures need to be changed for dialyzing patients infected with HIV.

Patients infected with HIV can be dialyzed by either hemodialysis or peritoneal dialysis and do not need to be isolated from other patients. The type of dialysis treatment (i.e., hemodialysis or peritoneal dialysis) should be based on the needs of the patient. The dialyzer may be discarded after each use. Alternatively, centers that reuse dialyzers—i.e., a specific single-use dialyzer is issued to a specific patient, removed, cleaned, disinfected, and reused several times on the same patient only—may include HIV-infected patients in the dialyzer-reuse program. An individual dialyzer must never be used on more than one patient.

Precautions for Laboratories[†]

Blood and other body fluids from all patients should be considered infective. To supplement the universal blood and body-fluid precautions listed above, the following precautions are recommended for health-care workers in clinical laboratories.

[†]Additional precautions for research and industrial laboratories are addressed elsewhere (*22,23*).

1. All specimens of blood and body fluids should be put in a well-constructed container with a secure lid to prevent leaking during transport. Care should be taken when collecting each specimen to avoid contaminating the outside of the container and of the laboratory form accompanying the specimen.
2. All persons processing blood and body-fluid specimens (e.g., removing tops from vacuum tubes) should wear gloves. Masks and protective eyewear should be worn if mucous-membrane contact with blood or body fluids is anticipated. Gloves should be changed and hands washed after completion of specimen processing.
3. For routine procedures, such as histologic and pathologic studies or microbiologic culturing, a biological safety cabinet is not necessary. However, biological safety cabinets (Class I or II) should be used whenever procedures are conducted that have a high potential for generating droplets. These include activities such as blending, sonicating, and vigorous mixing.
4. Mechanical pipetting devices should be used for manipulating all liquids in the laboratory. Mouth pipetting must not be done.
5. Use of needles and syringes should be limited to situations in which there is no alternative, and the recommendations for preventing injuries with needles outlined under universal precautions should be followed.
6. Laboratory work surfaces should be decontaminated with an appropriate chemical germicide after a spill of blood or other body fluids and when work activities are completed.
7. Contaminated materials used in laboratory tests should be decontaminated before reprocessing or be placed in bags and disposed of in accordance with institutional policies for disposal of infective waste (*24*).
8. Scientific equipment that has been contaminated with blood or other body fluids should be decontaminated and cleaned before being repaired in the laboratory or transported to the manufacturer.
9. All persons should wash their hands after completing laboratory activities and should remove protective clothing before leaving the laboratory.

Implementation of universal blood and body-fluid precautions for all patients eliminates the need for warning labels on specimens since blood and other body fluids from all patients should be considered infective.

Environmental Considerations for HIV Transmission

No environmentally mediated mode of HIV transmission has been documented. Nevertheless, the precautions described below should be taken routinely in the care of all patients.

Sterilization and Disinfection

Standard sterilization and disinfection procedures for patient-care equipment currently recommended for use (*25,26*) in a variety of health-care settings—including hospitals, medical and dental clinics and offices, hemodialysis centers, emergency-care facilities, and long-term nursing-care facilities—are adequate to sterilize or disinfect instruments, devices, or other items contaminated with blood or other body fluids from persons infected with blood-borne pathogens including HIV (*21,23*).

Instruments or devices that enter sterile tissue or the vascular system of any patient or through which blood flows should be sterilized before reuse. Devices or items that contact intact mucous membranes should be sterilized or receive high-level disinfection, a procedure that kills vegetative organisms and viruses but not necessarily large numbers of bacterial spores. Chemical germicides that are registered with the U.S. Environmental Protection Agency (EPA) as "sterilants" may be used either for sterilization or for high-level disinfection depending on contact time.

Contact lenses used in trial fittings should be disinfected after each fitting by using a hydrogen peroxide contact lens disinfecting system or, if compatible, with heat (78 C-80 C [172.4 F-176.0 F]) for 10 minutes.

Medical devices or instruments that require sterilization or disinfection should be thoroughly cleaned before being exposed to the germicide, and the manufacturer's instructions for the use of the germicide should be followed. Further, it is important that the manufacturer's specifications for compatibility of the medical device with chemical germicides be closely followed. Information on specific label claims of commercial germicides can be obtained by writing to the Disinfectants Branch, Office of Pesticides, Environmental Protection Agency, 401 M Street, SW, Washington, D.C. 20460.

Studies have shown that HIV is inactivated rapidly after being exposed to commonly used chemical germicides at concentrations that are much lower than used in practice (*27-30*). Embalming fluids are similar to the types of chemical germicides that have been tested and found to completely inactivate HIV. In addition to commercially available chemical germicides, a solution of sodium hypochlorite (household bleach) prepared daily is an inexpensive and effective germicide. Concentrations ranging from approximately 500 ppm (1:100 dilution of household bleach) sodium hypochlorite to 5,000 ppm (1:10 dilution of household bleach) are effective depending on the amount of organic material (e.g., blood, mucus) present on the surface to be cleaned and disinfected. Commercially available chemical germicides may be more compatible with certain medical devices that might be corroded by repeated exposure to sodium hypochlorite, especially to the 1:10 dilution.

Survival of HIV in the Environment

The most extensive study on the survival of HIV after drying involved greatly concentrated HIV samples, i.e., 10 million tissue-culture infectious doses per milliliter (*31*). This concentration is at least 100,000 times greater than that typically found in the blood or serum of patients with HIV infection. HIV was detectable by tissue-culture techniques 1-3 days after drying, but the rate of inactivation was rapid. Studies performed at CDC have also shown that drying HIV causes a rapid (within several hours) 1-2 log (90%-99%) reduction in HIV concentration. In tissue-culture fluid, cell-free HIV could be detected up to 15 days at room temperature, up to 11 days at 37 C (98.6 F), and up to 1 day if the HIV was cell-associated.

When considered in the context of environmental conditions in health-care facilities, these results do not require any changes in currently recommended sterilization, disinfection, or housekeeping strategies. When medical devices are contaminated with blood or other body fluids, existing recommendations include the cleaning of these instruments, followed by disinfection or sterilization, depending on the type of medical device. These protocols assume "worst-case" conditions of

extreme virologic and microbiologic contamination, and whether viruses have been inactivated after drying plays no role in formulating these strategies. Consequently, no changes in published procedures for cleaning, disinfecting, or sterilizing need to be made.

Housekeeping

Environmental surfaces such as walls, floors, and other surfaces are not associated with transmission of infections to patients or health-care workers. Therefore, extraordinary attempts to disinfect or sterilize these environmental surfaces are not necessary. However, cleaning and removal of soil should be done routinely.

Cleaning schedules and methods vary according to the area of the hospital or institution, type of surface to be cleaned, and the amount and type of soil present. Horizontal surfaces (e.g., bedside tables and hard-surfaced flooring) in patient-care areas are usually cleaned on a regular basis, when soiling or spills occur, and when a patient is discharged. Cleaning of walls, blinds, and curtains is recommended only if they are visibly soiled. Disinfectant fogging is an unsatisfactory method of decontaminating air and surfaces and is not recommended.

Disinfectant-detergent formulations registered by EPA can be used for cleaning environmental surfaces, but the actual physical removal of microorganisms by scrubbing is probably at least as important as any antimicrobial effect of the cleaning agent used. Therefore, cost, safety, and acceptability by housekeepers can be the main criteria for selecting any such registered agent. The manufacturers' instructions for appropriate use should be followed.

Cleaning and Decontaminating Spills of Blood or Other Body Fluids

Chemical germicides that are approved for use as "hospital disinfectants" and are tuberculocidal when used at recommended dilutions can be used to decontaminate spills of blood and other body fluids. Strategies for decontaminating spills of blood and other body fluids in a patient-care setting are different than for spills of cultures or other materials in clinical, public health, or research laboratories. In patient-care areas, visible material should first be removed and then the area should be decontaminated. With large spills of cultured or concentrated infectious agents in the laboratory, the contaminated area should be flooded with a liquid germicide before cleaning, then decontaminated with fresh germicidal chemical. In both settings, gloves should be worn during the cleaning and decontaminating procedures.

Laundry

Although soiled linen has been identified as a source of large numbers of certain pathogenic microorganisms, the risk of actual disease transmission is negligible. Rather than rigid procedures and specifications, hygienic and common-sense storage and processing of clean and soiled linen are recommended (*26*). Soiled linen should be handled as little as possible and with minimum agitation to prevent gross microbial contamination of the air and of persons handling the linen. All soiled linen should be bagged at the location where it was used; it should not be sorted or rinsed in patient-care areas. Linen soiled with blood or body fluids should be placed and transported in bags that prevent leakage. If hot water is used, linen should be washed

with detergent in water at least 71 C (160 F) for 25 minutes. If low-temperature(≤70 C [158 F]) laundry cycles are used, chemicals suitable for low-temperature washing at proper use concentration should be used.

Infective Waste

There is no epidemiologic evidence to suggest that most hospital waste is any more infective than residential waste. Moreover, there is no epidemiologic evidence that hospital waste has caused disease in the community as a result of improper disposal. Therefore, identifying wastes for which special precautions are indicated is largely a matter of judgment about the relative risk of disease transmission. The most practical approach to the management of infective waste is to identify those wastes with the potential for causing infection during handling and disposal and for which some special precautions appear prudent. Hospital wastes for which special precautions appear prudent include microbiology laboratory waste, pathology waste, and blood specimens or blood products. While any item that has had contact with blood, exudates, or secretions may be potentially infective, it is not usually considered practical or necessary to treat all such waste as infective (*23,26*). Infective waste, in general, should either be incinerated or should be autoclaved before disposal in a sanitary landfill. Bulk blood, suctioned fluids, excretions, and secretions may be carefully poured down a drain connected to a sanitary sewer. Sanitary sewers may also be used to dispose of other infectious wastes capable of being ground and flushed into the sewer.

Implementation of Recommended Precautions

Employers of health-care workers should ensure that policies exist for:

1. Initial orientation and continuing education and training of all health-care workers—including students and trainees—on the epidemiology, modes of transmission, and prevention of HIV and other blood-borne infections and the need for routine use of universal blood and body-fluid precautions for all patients.
2. Provision of equipment and supplies necessary to minimize the risk of infection with HIV and other blood-borne pathogens.
3. Monitoring adherence to recommended protective measures. When monitoring reveals a failure to follow recommended precautions, counseling, education, and/or re-training should be provided, and, if necessary, appropriate disciplinary action should be considered.

Professional associations and labor organizations, through continuing education efforts, should emphasize the need for health-care workers to follow recommended precautions.

Serologic Testing for HIV Infection

Background

A person is identified as infected with HIV when a sequence of tests, starting with repeated enzyme immunoassays (EIA) and including a Western blot or similar, more specific assay, are repeatedly reactive. Persons infected with HIV usually develop antibody against the virus within 6-12 weeks after infection.

The sensitivity of the currently licensed EIA tests is at least 99% when they are performed under optimal laboratory conditions on serum specimens from persons infected for ≥12 weeks. Optimal laboratory conditions include the use of reliable reagents, provision of continuing education of personnel, quality control of procedures, and participation in performance-evaluation programs. Given this performance, the probability of a false-negative test is remote except during the first several weeks after infection, before detectable antibody is present. The proportion of infected persons with a false-negative test attributed to absence of antibody in the early stages of infection is dependent on both the incidence and prevalence of HIV infection in a population (Table 1).

The specificity of the currently licensed EIA tests is approximately 99% when repeatedly reactive tests are considered. Repeat testing of initially reactive specimens by EIA is required to reduce the likelihood of laboratory error. To increase further the specificity of serologic tests, laboratories must use a supplemental test, most often the Western blot, to validate repeatedly reactive EIA results. Under optimal laboratory conditions, the sensitivity of the Western blot test is comparable to or greater than that of a repeatedly reactive EIA, and the Western blot is highly specific when strict criteria are used to interpret the test results. The testing sequence of a repeatedly reactive EIA and a positive Western blot test is highly predictive of HIV infection, even in a population with a low prevalence of infection (Table 2). If the Western blot test result is indeterminant, the testing sequence is considered equivocal for HIV infection.

TABLE 1. Estimated annual number of patients infected with HIV not detected by HIV-antibody testing in a hypothetical hospital with 10,000 admissions/year*

Beginning prevalence of HIV infection	Annual incidence of HIV infection	Approximate number of HIV-infected patients	Approximate number of HIV-infected patients not detected
5.0%	1.0%	550	17-18
5.0%	0.5%	525	11-12
1.0%	0.2%	110	3-4
1.0%	0.1%	105	2-3
0.1%	0.02%	11	0-1
0.1%	0.01%	11	0-1

*The estimates are based on the following assumptions: 1) the sensitivity of the screening test is 99% (i.e., 99% of HIV-infected persons with antibody will be detected); 2) persons infected with HIV will not develop detectable antibody (seroconvert) until 6 weeks (1.5 months) after infection; 3) new infections occur at an equal rate throughout the year; 4) calculations of the number of HIV-infected persons in the patient population are based on the mid-year prevalence, which is the beginning prevalence plus half the annual incidence of infections.

When this occurs, the Western blot test should be repeated on the same serum sample, and, if still indeterminant, the testing sequence should be repeated on a sample collected 3-6 months later. Use of other supplemental tests may aid in interpreting of results on samples that are persistently indeterminant by Western blot.

Testing of Patients

Previous CDC recommendations have emphasized the value of HIV serologic testing of patients for: 1) management of parenteral or mucous-membrane exposures of health-care workers, 2) patient diagnosis and management, and 3) counseling and serologic testing to prevent and control HIV transmission in the community. In addition, more recent recommendations have stated that hospitals, in conjunction with state and local health departments, should periodically determine the prevalence of HIV infection among patients from age groups at highest risk of infection (*32*).

Adherence to universal blood and body-fluid precautions recommended for the care of all patients will minimize the risk of transmission of HIV and other blood-borne pathogens from patients to health-care workers. The utility of routine HIV serologic testing of patients as an adjunct to universal precautions is unknown. Results of such testing may not be available in emergency or outpatient settings. In addition, some recently infected patients will not have detectable antibody to HIV (Table 1).

Personnel in some hospitals have advocated serologic testing of patients in settings in which exposure of health-care workers to large amounts of patients' blood may be anticipated. Specific patients for whom serologic testing has been advocated include those undergoing major operative procedures and those undergoing treatment in critical-care units, especially if they have conditions involving uncontrolled bleeding. Decisions regarding the need to establish testing programs for patients should be made by physicians or individual institutions. In addition, when deemed appropriate, testing of individual patients may be performed on agreement between the patient and the physician providing care.

In addition to the universal precautions recommended for all patients, certain additional precautions for the care of HIV-infected patients undergoing major surgical operations have been proposed by personnel in some hospitals. For example, surgical procedures on an HIV-infected patient might be altered so that hand-to-hand passing of sharp instruments would be eliminated; stapling instruments rather than

TABLE 2. Predictive value of positive HIV-antibody tests in hypothetical populations with different prevalences of infection

	Prevalence of infection	Predictive value of positive test*
Repeatedly reactive enzyme immunoassay (EIA)†	0.2%	28.41%
	2.0%	80.16%
	20.0%	98.02%
Repeatedly reactive EIA followed by positive Western blot (WB)§	0.2%	99.75%
	2.0%	99.97%
	20.0%	99.99%

*Proportion of persons with positive test results who are actually infected with HIV.
†Assumes EIA sensitivity of 99.0% and specificity of 99.5%.
§Assumes WB sensitivity of 99.0% and specificity of 99.9%.

hand-suturing equipment might be used to perform tissue approximation; electrocautery devices rather than scalpels might be used as cutting instruments; and, even though uncomfortable, gowns that totally prevent seepage of blood onto the skin of members of the operative team might be worn. While such modifications might further minimize the risk of HIV infection for members of the operative team, some of these techniques could result in prolongation of operative time and could potentially have an adverse effect on the patient.

Testing programs, if developed, should include the following principles:

- Obtaining consent for testing.
- Informing patients of test results, and providing counseling for seropositive patients by properly trained persons.
- Assuring that confidentiality safeguards are in place to limit knowledge of test results to those directly involved in the care of infected patients or as required by law.
- Assuring that identification of infected patients will not result in denial of needed care or provision of suboptimal care.
- Evaluating prospectively 1) the efficacy of the program in reducing the incidence of parenteral, mucous-membrane, or significant cutaneous exposures of health-care workers to the blood or other body fluids of HIV-infected patients and 2) the effect of modified procedures on patients.

Testing of Health-Care Workers

Although transmission of HIV from infected health-care workers to patients has not been reported, transmission during invasive procedures remains a possibility. Transmission of hepatitis B virus (HBV)—a blood-borne agent with a considerably greater potential for nosocomial spread—from health-care workers to patients has been documented. Such transmission has occurred in situations (e.g., oral and gynecologic surgery) in which health-care workers, when tested, had very high concentrations of HBV in their blood (at least 100 million infectious virus particles per milliliter, a concentration much higher than occurs with HIV infection), and the health-care workers sustained a puncture wound while performing invasive procedures or had exudative or weeping lesions or microlacerations that allowed virus to contaminate instruments or open wounds of patients (*33,34*).

The hepatitis B experience indicates that only those health-care workers who perform certain types of invasive procedures have transmitted HBV to patients. Adherence to recommendations in this document will minimize the risk of transmission of HIV and other blood-borne pathogens from health-care workers to patients during invasive procedures. Since transmission of HIV from infected health-care workers performing invasive procedures to their patients has not been reported and would be expected to occur only very rarely, if at all, the utility of routine testing of such health-care workers to prevent transmission of HIV cannot be assessed. If consideration is given to developing a serologic testing program for health-care workers who perform invasive procedures, the frequency of testing, as well as the issues of consent, confidentiality, and consequences of test results—as previously outlined for testing programs for patients—must be addressed.

Management of Infected Health-Care Workers

Health-care workers with impaired immune systems resulting from HIV infection or other causes are at increased risk of acquiring or experiencing serious complications of infectious disease. Of particular concern is the risk of severe infection following exposure to patients with infectious diseases that are easily transmitted if appropriate precautions are not taken (e.g., measles, varicella). Any health-care worker with an impaired immune system should be counseled about the potential risk associated with taking care of patients with any transmissible infection and should continue to follow existing recommendations for infection control to minimize risk of exposure to other infectious agents (*7,35*). Recommendations of the Immunization Practices Advisory Committee (ACIP) and institutional policies concerning requirements for vaccinating health-care workers with live-virus vaccines (e.g., measles, rubella) should also be considered.

The question of whether workers infected with HIV—especially those who perform invasive procedures—can adequately and safely be allowed to perform patient-care duties or whether their work assignments should be changed must be determined on an individual basis. These decisions should be made by the health-care worker's personal physician(s) in conjunction with the medical directors and personnel health service staff of the employing institution or hospital.

Management of Exposures

If a health-care worker has a parenteral (e.g., needlestick or cut) or mucous-membrane (e.g., splash to the eye or mouth) exposure to blood or other body fluids or has a cutaneous exposure involving large amounts of blood or prolonged contact with blood—especially when the exposed skin is chapped, abraded, or afflicted with dermatitis—the source patient should be informed of the incident and tested for serologic evidence of HIV infection after consent is obtained. Policies should be developed for testing source patients in situations in which consent cannot be obtained (e.g., an unconscious patient).

If the source patient has AIDS, is positive for HIV antibody, or refuses the test, the health-care worker should be counseled regarding the risk of infection and evaluated clinically and serologically for evidence of HIV infection as soon as possible after the exposure. The health-care worker should be advised to report and seek medical evaluation for any acute febrile illness that occurs within 12 weeks after the exposure. Such an illness—particularly one characterized by fever, rash, or lymphadenopathy—may be indicative of recent HIV infection. Seronegative health-care workers should be retested 6 weeks post-exposure and on a periodic basis thereafter (e.g., 12 weeks and 6 months after exposure) to determine whether transmission has occurred. During this follow-up period—especially the first 6-12 weeks after exposure, when most infected persons are expected to seroconvert—exposed health-care workers should follow U.S. Public Health Service (PHS) recommendations for preventing transmission of HIV (*36,37*).

No further follow-up of a health-care worker exposed to infection as described above is necessary if the source patient is seronegative unless the source patient is at high risk of HIV infection. In the latter case, a subsequent specimen (e.g., 12 weeks following exposure) may be obtained from the health-care worker for antibody

testing. If the source patient cannot be identified, decisions regarding appropriate follow-up should be individualized. Serologic testing should be available to all health-care workers who are concerned that they may have been infected with HIV.

If a patient has a parenteral or mucous-membrane exposure to blood or other body fluid of a health-care worker, the patient should be informed of the incident, and the same procedure outlined above for management of exposures should be followed for both the source health-care worker and the exposed patient.

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MORBIDITY AND MORTALITY WEEKLY REPORT

Perspectives in Disease Prevention and Health Promotion

Public Health Service Guidelines for Counseling and Antibody Testing to Prevent HIV Infection and AIDS

These guidelines are the outgrowth of the 1986 recommendations published in the *MMWR* (*1*); the report on the February 24-25, 1987, Conference on Counseling and Testing (*2*); and a series of meetings with representatives from the Association of State and Territorial Health Officials, the Association of State and Territorial Public Health Laboratory Directors, the Council of State and Territorial Epidemiologists, the National Association of County Health Officials, the United States Conference of Local Health Officers, and the National Association of State Alcohol and Drug Abuse Directors.

Human immunodeficiency virus (HIV), the causative agent of acquired immunodeficiency syndrome (AIDS) and related clinical manifestations, has been shown to be spread by sexual contact; by parenteral exposure to blood (most often through intravenous [IV] drug abuse) and, rarely, by other exposures to blood; and from an infected woman to her fetus or infant.

Persons exposed to HIV usually develop detectable levels of antibody against the virus within 6-12 weeks of infection. The presence of antibody indicates current infection, though many infected persons may have minimal or no clinical evidence of disease for years. Counseling and testing persons who are infected or at risk for acquiring HIV infection is an important component of prevention strategy (*1*). Most of the estimated 1.0 to 1.5 million infected persons in the United States are unaware that they are infected with HIV. The primary public health purposes of counseling and testing are to help uninfected individuals initiate and sustain behavioral changes that reduce their risk of becoming infected and to assist infected individuals in avoiding infecting others.

Along with the potential personal, medical, and public health benefits of testing for HIV antibody, public health agencies must be concerned about actions that will discourage the use of counseling and testing facilities, most notably the unauthorized disclosure of personal information and the possibility of inappropriate discrimination.

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES / PUBLIC HEALTH SERVICE

Attachment 2, 3-40

Guidelines — Continued

Priorities for public health counseling and testing should be based upon providing ready access to persons who are most likely to be infected or who practice high-risk behaviors, thereby helping to reduce further spread of infection. There are other considerations for determining testing priorities, including the likely effectiveness of preventing the spread of infection among persons who would not otherwise realize that they are at risk. Knowledge of the prevalence of HIV infection in different populations is useful in determining the most efficient and effective locations providing such services. For example, programs that offer counseling and testing to homosexual men, IV-drug abusers, persons with hemophilia, sexual and/or needle-sharing partners of these persons, and patients of sexually transmitted disease clinics may be most effective since persons in these groups are at high risk for infection. After counseling and testing are effectively implemented in settings of high and moderate prevalence, consideration should be given to establishing programs in settings of lower prevalence.

Interpretation of HIV-Antibody Test Results

A test for HIV antibody is considered positive when a sequence of tests, starting with a repeatedly reactive enzyme immunoassay (EIA) and including an additional, more specific assay, such as a Western blot, are consistently reactive.

The *sensitivity* of the currently licensed EIA tests is 99% or greater when performed under optimal laboratory conditions. Given this performance, the probability of a false-negative test result is remote, except during the first weeks after infection, before antibody is detectable.

The *specificity* of the currently licensed EIA tests is approximately 99% when repeatedly reactive tests are considered. Repeat testing of specimens initially reactive by EIA is required to reduce the likelihood of false-positive test results due to laboratory error. To further increase the specificity of the testing process, laboratories must use a supplemental test—most often the Western blot test—to validate repeatedly reactive EIA results. The sensitivity of the licensed Western blot test is comparable to that of the EIA, and it is highly specific when strict criteria are used for interpretation. Under ideal circumstances, the probability that a testing sequence will be falsely positive in a population with a low rate of infection ranges from less than 1 in 100,000 (Minnesota Department of Health, unpublished data) to an estimated 5 in 100,000 (*3,4*). Laboratories using different Western blot reagents or other tests or using less stringent interpretive criteria may experience higher rates of false-positive results.

Laboratories should carefully guard against human errors, which are likely to be the most common source of false-positive test results. All laboratories should anticipate the need for assuring quality performance of tests for HIV antibody by training personnel, establishing quality controls, and participating in performance evaluation systems. Health department laboratories should facilitate the quality assurance of the performance of laboratories in their jurisdiction.

Guidelines — Continued

Guidelines for Counseling and Testing for HIV Antibody

These guidelines are based on public health considerations for HIV testing, including the principles of counseling before and after testing, confidentiality of personal information, and the understanding that a person may decline to be tested without being denied health care or other services, except where testing is required by law (*5*). Counseling before testing may not be practical when screening for HIV antibody is required. This is true for donors of blood, organs, and tissue; prisoners; and immigrants for whom testing is a Federal requirement as well as for persons admitted to state correctional institutions in states that require testing. When there is no counseling before testing, persons should be informed that testing for HIV antibody will be performed, that individual results will be kept confidential to the extent permitted by law, and that appropriate counseling will be offered. Individual counseling of those who are either HIV-antibody positive or at continuing risk for HIV infection is critical for reducing further transmission and for ensuring timely medical care.

Specific recommendations follow:

1. *Persons who may have sexually transmitted disease.* All persons seeking treatment for a sexually transmitted disease, in all health-care settings including the offices of private physicians, should be routinely* counseled and tested for HIV antibody.
2. *IV-drug abusers.* All persons seeking treatment for IV-drug abuse or having a history of IV-drug abuse should be routinely counseled and tested for HIV antibody. Medical professionals in all health-care settings, including prison clinics, should seek a history of IV-drug abuse from patients and should be aware of its implications for HIV infection. In addition, state and ~~local~~ health policy makers should address the following issues:
   - Treatment programs for IV-drug abusers should be sufficiently available to allow persons seeking assistance to enter promptly and be encouraged to alter the behavior that places them and others at risk for HIV infection.
   - Outreach programs for IV-drug abusers should be undertaken to increase their knowledge of AIDS and of ways to prevent HIV infection, to encourage them to obtain counseling and testing for HIV antibody, and to persuade them to be treated for substance abuse.
3. *Persons who consider themselves at risk.* All persons who consider themselves at risk for HIV infection should be counseled and offered testing for HIV antibody.

*"Routine counseling and testing" is defined as a policy to provide these services to all clients after informing them that testing will be done. Except where testing is required by law, individuals have the right to decline to be tested without being denied health care or other services.

Guidelines — Continued

4. *Women of childbearing age.* All women of childbearing age with identifiable risks for HIV infection should be routinely counseled and tested for HIV antibody, regardless of the health-care setting. Each encounter between a health-care provider and a woman at risk and/or her sexual partners is an opportunity to reach them with information and education about AIDS and prevention of HIV infection. Women are at risk for HIV infection if they:
   - Have used IV drugs.
   - Have engaged in prostitution.
   - Have had sexual partners who are infected or are at risk for infection because they are bisexual or are IV-drug abusers or hemophiliacs.
   - Are living in communities or were born in countries where there is a known or suspected high prevalence of infection among women.
   - Received a transfusion before blood was being screened for HIV antibody but after HIV infection occurred in the United States (e.g., between 1978 and 1985).

   Educating and testing these women before they become pregnant allows them to avoid pregnancy and subsequent intrauterine perinatal infection of their infants (30%-50% of the infants born to HIV-infected women will also be infected).

   All pregnant women at risk for HIV infection should be routinely counseled and tested for HIV antibody. Identifying pregnant women with HIV infection as early in pregnancy as possible is important for ensuring appropriate medical care for these women; for planning medical care for their infants; and for providing counseling on family planning, future pregnancies, and the risk of sexual transmission of HIV to others.

   All women who seek family planning services and who are at risk for HIV infection should be routinely counseled about AIDS and HIV infection and tested for HIV antibody. Decisions about the need for counseling and testing programs in a community should be based on the best available estimates of the prevalence of HIV infection and the demographic variables of infection.
5. *Persons planning marriage.* All persons considering marriage should be given information about AIDS, HIV infection, and the availability of counseling and testing for HIV antibody. Decisions about instituting routine or mandatory premarital testing for HIV antibody should take into account the prevalence of HIV infection in the area and/or population group as well as other factors and should be based upon the likely cost-effectiveness of such testing in preventing further spread of infection. Premarital testing in an area with a prevalence of HIV infection as low as 0.1% may be justified if reaching an infected person through testing can prevent subsequent transmission to the spouse or prevent pregnancy in a woman who is infected.

Guidelines – Continued

6. *Persons undergoing medical evaluation or treatment.* Testing for HIV antibody is a useful diagnostic tool for evaluating patients with selected clinical signs and symptoms such as generalized lymphadenopathy; unexplained dementia; chronic, unexplained fever or diarrhea; unexplained weight loss; or diseases such as tuberculosis as well as sexually transmitted diseases, generalized herpes, and chronic candidiasis.

   Since persons infected with both HIV and the tubercle bacillus are at high risk for severe clinical tuberculosis, all patients with tuberculosis should be routinely counseled and tested for HIV antibody (*6*). Guidelines for managing patients with both HIV and tuberculous infection have been published (*7*).

   The risk of HIV infection from transfusions of blood or blood components from 1978-1985 was greatest for persons receiving large numbers of units of blood collected from areas with high incidences of AIDS. Persons who have this increased risk should be counseled about the potential risk of HIV infection and should be offered antibody testing (*8*).

7. *Persons admitted to hospitals.* Hospitals, in conjunction with state and local health departments, should periodically determine the prevalence of HIV infections in the age groups at highest risk for infection. Consideration should be given to routine testing in those age groups deemed to have a high prevalence of HIV infection.

8. *Persons in correctional systems.* Correctional systems should study the best means of implementing programs for counseling inmates about HIV infection and for testing them for such infection at admission and discharge from the system. In particular, they should examine the usefulness of these programs in preventing further transmission of HIV infection and the impact of the testing programs on both the inmates and the correctional system (*9*). Federal prisons have been instructed to test all prisoners when they enter and leave the prison system.

9. *Prostitutes.* Male and female prostitutes should be counseled and tested and made aware of the risks of HIV infection to themselves and others. Particularly prostitutes who are HIV-antibody positive should be instructed to discontinue the practice of prostitution. Local or state jurisdictions should adopt procedures to assure that these instructions are followed.

Partner Notification/Contact Tracing

Sexual partners and those who share needles with HIV-infected persons are at risk for HIV infection and should be routinely counseled and tested for HIV antibody. Persons who are HIV-antibody positive should be instructed in how to notify their partners and to refer them for counseling and testing. If they are unwilling to notify their partners or if it cannot be assured that their partners will seek counseling, physicians or health department personnel should use confidential procedures to assure that the partners are notified.

Guidelines — Continued

Confidentiality and Antidiscrimination Considerations

The ability of health departments, hospitals, and other health-care providers and institutions to assure confidentiality of patient information and the public's confidence in that ability are crucial to efforts to increase the number of persons being counseled and tested for HIV infection. Moreover, to assure broad participation in the counseling and testing programs, it is of equal or greater importance that the public perceive that persons found to be positive will not be subject to inappropriate discrimination.

Every reasonable effort should be made to improve confidentiality of test results. The confidentiality of related records can be improved by a careful review of actual record-keeping practices and by assessing the degree to which these records can be protected under applicable state laws. State laws should be examined and strengthened when found necessary. Because of the wide scope of "need-to-know" situations, because of the possibility of inappropriate disclosures, and because of established authorization procedures for releasing records, it is recognized that there is no perfect solution to confidentiality problems in all situations. Whether disclosures of HIV-testing information are deliberate, inadvertent, or simply unavoidable, public health policy needs to carefully consider ways to reduce the harmful impact of such disclosures.

Public health prevention policy to reduce the transmission of HIV infection can be furthered by an expanded program of counseling and testing for HIV antibody, but the extent to which these programs are successful depends on the level of participation. Persons are more likely to participate in counseling and testing programs if they believe that they will not experience negative consequences in areas such as employment, school admission, housing, and medical services should they test positive. There is no known medical reason to avoid an infected person in these and ordinary social situations since the cumulative evidence is strong that HIV infection is not spread through casual contact. It is essential to the success of counseling and testing programs that persons who are tested for HIV are not subjected to inappropriate discrimination.

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Guidelines – Continued

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Guidelines for the Control of Perinatally Transmitted Human Immunodeficiency Virus Infection and Care of Infected Mothers, Infants and Children

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The transmission of the human immunodeficiency virus (HIV) from infected mothers to infants, either in utero or perinatally, has been well established.[1-10] Infection in these infants can be asymptomatic or cause a variety of clinical syndromes including the acquired immunodeficiency syndrome (AIDS).[11] It is not, however, conclusively known what proportion of infants exposed in utero or perinatally will become infected and in what proportion of infected infants clinical disease will develop.[12] As of December 1, 1985, there were 217 cases of pediatric AIDS reported to the Centers for Disease Control (CDC) (unpublished data). Of these children, 48% were born to intravenous-drug-using mothers, 17% to Haitians and 10% to mothers who either had AIDS or were sexual partners of men with AIDS or at risk for AIDS. An additional 39 (18%) children were infected through transfusions of infected blood or blood products, and 13 (6%) had unknown sources of infection. Thus, 165 (76%) of the cases had been exposed to HIV in utero or perinatally.

HIV Infection in Women of Child-Bearing Age

In the United States, approximately 7% of adult cases of AIDS are women. Nearly 53% of these women are intravenous drug users, 15% are sexual partners of men in risk groups (primarily heterosexual intravenous drug users) and 9% have received infected blood or blood products. In all, 80% are between 20 and 49 years old, 22% of these women are white, 55% black and 23% Latino (CDC, unpublished data). In San Francisco, as of January 31, 1986, there had been ten cases of AIDS reported in adult women. Three of these women were intravenous drug users, one was a sexual partner of a man in a high-prevalence group, four had received transfusions and two had no identified risk. Four were between 20 and 49 years old; two of these were white, one black and one Asian.

HIV Transmission in Households

None of the identified cases of HIV infection in the United States are known to have been transmitted in school, day-care or foster-care settings or through casual person-to-person contact.[13] Other than sexual partners of HIV-infected patients, infants born to infected mothers or a single case involving nosocomial transmission from a child to a mother providing nursing care,[14] none of the family members of the more than 17,000 AIDS patients reported to CDC have had the development of AIDS. Five studies of family members of patients with HIV infection have failed to show HIV transmission to adults who are not sexual contacts of the infected patients or to children who are not already infected perinatally.[15-19] If, however, casual person-to-person transmission of HIV infection does exist, it should theoretically be greatest among young children. This theoretic transmission would most likely involve exposure of open skin lesions of mucous membranes to blood and possibly other body fluids of an infected person. We emphasize that there is no evidence of this type of transmission occurring in any setting at this time.

General Recommendations

Education

Risk-reducing education. All sexually active homosexual, bisexual and heterosexual adults with multiple sexual partners since 1979 should be aware that they are potentially at risk of HIV infection, and sexually active women with multiple sexual partners since 1979 should understand that, if they have been infected, they are at risk of transmitting HIV perinatally. To this end, widespread health education campaigns should address the risk of infection and the ways to prevent sexual transmission among heterosexuals and, more specifically, to women of child-bearing age. Additionally, women in recognized risk groups (Table 1) should be the target of more intensified educational campaigns and, if indicated, special educational programs to decrease their ongoing risk of parenterally or sexually acquiring HIV infection, such as referral for substance abuse or sexual risk-reducing counseling. These campaigns should be culturally and linguistically appropriate for these risk groups.

Provider education. To provide a high standard of care for HIV-infected women, infants and children, obstetricians, pediatricians, foster parents and agencies and other providers

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Attachment 3

ABBREVIATIONS USED IN TEXT

AIDS = acquired immunodeficiency syndrome
ARC = AIDS-related complex
CDC = Centers for Disease Control
ELISA = enzyme-linked immunosorbent assay
HIV = human immunodeficiency virus

need to be educated about the virus, its modes of transmission, its prevention and the special issues of confidentiality and counseling surrounding the infection. Focus should be placed on educating and training those providers serving patients at highest risk of infection. We recommend that providers assess each patient's history of potential exposure to HIV and not assume that membership in a risk group implies de facto infection and, conversely, that nonmembership implies non-infection.

Laboratory Testing

We recommend that more than one method of anti-HIV antibody determination be used for testing pregnant women, women in risk groups and children of women in risk groups for HIV infection. Such methods include enzyme-linked immunosorbent assay (ELISA), indirect fluorescent antibody and Western blot. Because of a possible increased incidence of false-positive ELISA results during pregnancy, especially among intravenous-drug-using women, laboratory testing should be done in a single reliable and experienced facility. Submission of specimens identified only by code number to this laboratory will greatly decrease the chances of unintentional disclosure.

Preconception Recommendations

Whenever possible, women infected with HIV should be confidentially identified and educated about the risks of perinatal transmission. Infected women should be advised to postpone pregnancy until more is known about the specific risks of perinatal transmission. Detailed contraceptive counseling should be offered to these women. Infected women should also be counseled to avoid unsafe sexual practices and to inform previous and prospective sexual partners about their possible exposure. Regardless of other contraceptive methods used, they should use barrier methods of contraception—such as a condom or a condom plus a diaphragm with a nonoxynol-9-containing spermicide—during intercourse to diminish the chances both of transmitting HIV to their sexual partners and of being reinfected with it.

We recommend that women who believe themselves to be at high risk for HIV infection (Table 1) be confidentially or anonymously tested for anti-HIV antibody if they are planning to become pregnant. Testing can be offered through private physicians, alternate test sites or through clinics, especially those used by women in risk groups, such as family planning clinics, drug treatment programs and sexually transmitted disease clinics. Testing of these women, although strongly recommended, must be voluntary and confidential. We do not recommend that women who are not in risk groups be tested at this time. Because of possible sexual contact with men in high-incidence groups, however, it may be prudent for women with multiple sexual partners in areas with a high incidence of AIDS to consider themselves at risk and to obtain preconception counseling and testing if indicated. Regardless of test results, women and their children should continue to have access to all health and social services for which they are eligible.

TABLE 1.—*Women in Whom Human Immunodeficiency Virus Infection Has Been Reported*

Mode of Transmission	*Group*
Sexual	Sexual contacts of AIDS patients or men in risk groups*
	Artificially inseminated women (donor insemination) between January 1, 1979, and June 1, 1985
Parenteral	Intravenous drug users
	Recipients of blood or blood products between January 1, 1979, and June 1, 1985
Either	Mothers of perinatally infected children

AIDS = acquired immunodeficiency virus

*Women with multiple sexual partners in areas with high incidences of AIDS should possibly consider themselves in this category.

Recommendations for Mothers

Identification of Infected Pregnant Women

Routine histories taken at clinical facilities serving women potentially at high risk for HIV infection should include confidential questions designed to elucidate their risk of infection. Such clinics include physicians' offices, family planning clinics, sexually transmitted disease clinics, drug treatment clinics, women, infants and children clinics and prenatal clinics. Written or audiovisual materials, or both, regarding HIV infection should be available at all sites where these women are seen.

We recommend that women in risk groups be educated about HIV infection and that women determined to be at risk be tested at the time they present for prenatal care. Such testing must be voluntary and confidential. We do not recommend routine testing of all pregnant women. High-risk women who are seronegative in the first or second trimester should be retested in the late third trimester to rule out intercurrent HIV infection. Because quality obstetric care requires that the obstetrical provider know if an individual patient is infected, we recommend that, whenever possible, the test be obtained through the provider. Before such testing occurs, however, each provider should institute procedures that guarantee patient confidentiality. A release-of-information form authorizing the newborn's medical provider access to the mother's test result should also be obtained at this time. Because of the unique potential for exposure of health care workers to large amounts of possibly infectious blood and amniotic fluid during the course of labor and delivery, we recommend that labor and delivery personnel be notified of the need for appropriate infection control procedures on a strictly controlled basis. Ideally this information should be transmitted directly to labor and delivery personnel and through a mechanism other than the permanent medical record.

Care of Infected Pregnant Women

These recommendations apply specifically to women who are known to be infected. Guidelines for women at high risk of infection who have not been tested for HIV infection are found under "Special Considerations" below.

Prenatal care. We recommend that any seropositive woman be retested using two different anti-HIV antibody determinations to ensure accuracy. We recommend that women confirmed to be seropositive be carefully counseled regarding the risk of perinatal HIV infection and the options open to

them. Such options include continuing the pregnancy or terminating it if early enough in gestation. Infected women should also be specifically counseled to postpone subsequent pregnancies until more is known about the perinatal transmission of the virus. They should be medically evaluated to rule out any incipient opportunistic infection or malignancy. Specifically, the possibility of infection with *Mycobacterium tuberculosis* should be evaluated by chest x-ray film and purified protein-derivative test, and chronic infection with hepatitis B virus, cytomegalovirus and herpes simplex virus should be excluded. The use of teratogenic drugs, including trimethoprim and most antivirals, should be avoided except in the face of a life-threatening maternal illness.

Intrapartum care. We recommend that hospitals review their procedures for infection control during the intrapartum period and that hospital personnel exercise caution when dealing with any potentially infectious body fluid. For HIV these fluids include blood of either maternal or fetal origin, amniotic fluid and the placenta and membranes. Grossly contaminated linens and disposables, as well as blood and amniotic fluid specimens, should be handled according to the hospital infection control procedures. The choice of location for delivery—delivery room versus labor room—may be dictated by circumstance, but consideration should be given to a labor room delivery to minimize the need for disinfection of two locations. All personnel expected to have direct contact with an infected mother or newborn during delivery should wear gloves and gowns. Those exposed to the possibility of a splash of infectious materials should strongly consider wearing a mask and protective eyewear during the delivery itself. Disposal of all materials should follow hospital infection control procedures. The labor room, delivery room and all instruments should be disinfected with a 1:10 sodium hypochlorite solution. The placenta of a seropositive woman or of a high-risk woman of unknown status should be labeled with "Blood Precautions" or the equivalent before routing for pathologic examination or disposal.

Postpartum care. In the postpartum period, regular hospital infection control procedures for HIV infection should be followed. Isolation of asymptomatic seropositive women is not recommended. Mothers should be given full access to their infants unless they have untreated pulmonary tuberculosis. Until more is known about the possible transmission of virus in breast milk, mothers known to be infected should not breast-feed their infants. Because the potential for exposure to large amounts of infectious material decreases substantially after delivery, information regarding the woman's antibody status should not be transmitted beyond the labor and delivery area, including to social work, law enforcement or correctional personnel.

Special Considerations

Women at high risk of infection who are not tested. We recommend that women at high risk of HIV infection who have not been tested during pregnancy be presumed to be positive for purposes of intrapartum infection control procedures. As the benefits of breast-feeding may outweigh the possible risk of postnatal transmission of the virus, however, breast-feeding by mothers at risk of infection who have not been tested is not absolutely contraindicated. Rather, recommendations regarding the safety of breast-feeding should be individualized and based on a mother's estimated risk of infection.

Intravenous-drug-using mothers. To prevent further parenteral transmission of HIV through needle sharing and further perinatal transmission, we recommend that women in this group be specially targeted for substance abuse treatment and risk-reducing education.

Recommendations for Infants and Children

Identifying Exposed Infants

We recommend that identification of HIV-exposed infants begin in utero. If women in high-incidence groups are not tested during pregnancy, we recommend that for medical reasons their infants be tested as early as possible—such as testing the cord blood—and definitely before 2 months of age. Such testing should be done confidentially and with the voluntary consent of the child's parent or guardian.

Identifying Infected Infants

Infants of seropositive mothers. Infants born to mothers who are known to have been infected during pregnancy should be retested for anti-HIV antibody at about 1 year of age when passively acquired maternal antibody has disappeared. Infants presenting before 1 year of age with symptoms suggestive of HIV infection should be retested at that time. If facilities are available, peripheral mononuclear cells should be cultured for HIV to definitely establish a diagnosis of HIV infection.

Infants and children of high-risk mothers with unknown serologic status. Infants born to mothers at high risk of HIV infection whose prenatal anti-HIV antibody status is not known should be tested before 2 months of age for exposure to HIV and retested at 1 year of age or earlier if clinically indicated. Older children who were born on or after January 1, 1979, and whose mothers were at risk of HIV infection should be tested only if they have not completed a primary series of oral polio vaccine and have not received a measles-mumps-rubella vaccination or if clinically indicated. Because of possible complications of live virus vaccines, we recommend that older high-risk children be tested for HIV exposure or infection before receiving live virus vaccines. In the event that the parent or guardian refuses testing, the infant or child should not receive live virus vaccines.

Infants and children at risk for parenterally acquired infection. Infants and children at risk for parenterally acquired HIV infection should be tested only if they received blood or blood products from a donor identified as HIV-infected and will receive live virus vaccines, or if they were transfused with non-heat-treated factor VIII and will receive live virus vaccines or if clinically indicated.

Infants and children of non-high-risk mothers. Infants and children born to mothers not at high risk of HIV infection and not at risk for parenterally acquired HIV infection should not be tested.

Care of Exposed and Infected Infants and Children

Nursery and in-hospital care. Regular hospital infection control procedures for HIV infection and regular hospital procedures for inpatient care of immunosuppressed patients should be followed in the nursery and during subsequent inpatient admissions. To prevent possible portals of entry for infection, circumcision of exposed male infants should be strongly discouraged and only done with informed consent. Umbilical stumps should be meticulously cleaned daily until they are evulsed.

Routine home care. Care-givers who are exposed to the body fluids and excrement of exposed infants and infected children should be aware of the potential for infection and the modes of HIV transmission. Good handwashing after exposure to body fluids and excrement should be observed and any open lesions, either on care-givers' hands or on children, should be covered.

Medical care. Exposed infants who remain anti-HIV positive beyond 1 year of age or who have documented positive HIV cultures at any age should be considered at risk for the development of AIDS or AIDS-related complex (ARC) and, therefore, potentially immunodeficient. Infants and children either at risk for the development of AIDS or ARC or who have clinical AIDS or ARC should be assumed to have a secondary combined immunodeficiency, be followed closely for problems with growth and development and be given prompt and aggressive therapy for infections and exposure to potentially lethal infections, such as varicella and measles.

Exposed infants and infected children should not receive live virus vaccines or bacille Calmette Guérin until more is known about vaccinating HIV-infected persons. Inactivated vaccines, including *Hemophilus influenzae* type b and pertussis vaccines and diphtheria and tetanus toxoids, are not contraindicated and should be given as regularly scheduled. Inactivated polio vaccine should be substituted for oral polio vaccine and be given in conjunction with diphtheria and tetanus toxoids and pertussis vaccine at 2, 4, 6 and 18 months and 4 to 6 years of age. Measles, mumps and rubella vaccine should not be administered to these children at the present time.

Infants or children with clinical AIDS or ARC should be evaluated and cared for as if they have combined immunodeficiency disease. Because these children potentially have a significant cellular immunodeficiency, all blood products should be irradiated to avoid graft-versus-host disease. Until more is known about the natural history of disease in infants who remain anti-HIV positive beyond 1 year of age, the immune status of these children should be sequentially evaluated with the consultation of a pediatrician experienced in the care of HIV-infected children. The increased risk of *Pneumocystis carinii* pneumonia in these children may be modified by the prophylactic use of trimethoprim-sulfamethoxazole. As these children do not make normal specific antibodies to new antigens, their increased risk of infection with bacterial agents may be altered by monthly administration of immune globulin, either intramuscularly or intravenously.

Special Considerations

Foster care. In each decision involving foster-care placement, a mother's history of possible exposure to HIV infection should be individually assessed to determine if she and her child are truly at risk of infection. In San Francisco these decisions can be made in consultation with a designated perinatal coordinator within the Department of Public Health or, if necessary, with the Perinatal and Pediatric AIDS Advisory Committee. For the purposes of foster-care decisions, the committee in San Francisco also includes consumer advocates representative of ethnic and socioeconomic populations at high risk for perinatally transmitted infection. (For a list of the committee members, see footnote at end of article.)

If a child whose mother has been tested for HIV infection comes to foster care, we recommend that the social worker assigned to the case request that the mother's obstetrical provider release the results of her test to the perinatal coordinator with the mother's consent. Based on the results of these tests, the perinatal coordinator will specify if the infant will need medical foster-care placement or routine foster-care placement. Medical placement will be required for infants of mothers with a positive anti-HIV antibody test and in San Francisco entails review of the placement decision by the Perinatal and Pediatric AIDS Advisory Committee. Routine placement will require that a mother be seronegative. The perinatal coordinator will inform the social worker assigned to follow the child of the reasons for medical placement and will also be responsible, in conjunction with the social worker, for informing the foster family and the child's pediatrician of the reasons for medical placement. Additional authorizations to release information will be required for each of these subsequent disclosures.

Children younger than 3 years currently in foster care and children entering foster care in the future whose mothers were not tested for HIV infection prenatally should be tested for HIV infection only if their mothers have been determined to be at risk of infection. Testing in these cases is indicated on medical grounds alone and should be done with the consent of the mother. In San Francisco, if a mother refuses to consent to testing or refuses to release the results of her test, we recommend that the case be reviewed by the Perinatal and Pediatric AIDS Advisory Committee and, if indicated, confidential testing of the child and release of the test results be done as part of dependency proceedings. Once results of the test are available, they will be released by the child's provider to the perinatal coordinator in the case of voluntary testing or reported directly by the laboratory to the perinatal coordinator in the case of court-ordered testing. The perinatal coordinator will then indicate whether the child is in need of medical placement or routine placement. If the child is in need of medical placement, the perinatal coordinator will follow procedures as outlined above. If, for whatever reason, the child is not tested; the mother's exposure history will be reviewed and appropriate placement recommended by the perinatal and pediatric AIDS advisory committee.

Children in foster care 3 years of age and older, born after January 1, 1979, and born to a mother determined to be at risk of HIV infection should be tested only if they have significant neurodevelopmental delay and lack control of their body secretions or display aggressive behavior, such as biting, or who have uncoverable, oozing lesions. Such testing should occur only after careful medical review by a perinatal and pediatric AIDS advisory committee to determine if such conditions truly increase the theoretic risk of casual HIV transmission. Again, the consent of the child's mother should be obtained for testing and release of information, or, if consent is not available, testing and release of information should be ordered by the court if indicated. We feel that all prenatal testing should be done on a voluntary basis and that the mother should freely consent both to being tested and to release the test results (required by law in California[20]) to assure better medical care of her children. In the event, however, that a mother determined to be at significant risk of infection has not been tested prenatally, refuses to be tested prenatally or refuses to consent to release the results of her prenatal test, as it is our opinion that testing of high-risk children for HIV infection is medically indicated, we recommend that, if these children are to be placed in foster homes, such testing be done and, if necessary, be specifically ordered by the court having

3-50

jurisdiction over the child. Before any court-ordered testing, however, the case must be reviewed by the Perinatal and Pediatric AIDS Advisory Committee to determine if testing is indeed indicated.

Adoption. We recommend that infants and children whose mothers were at high risk of HIV infection, who were born on or after January 1, 1979, and who have not been previously tested be tested for HIV infection before placement. We recommend that the HIV status of all children at high risk of infection be made available to adopting parents before final placement so that they can consider the possible social and psychological effects on their families.

Conclusions

The information and recommendations contained in this report were developed and compiled by the Perinatal and Pediatric AIDS Advisory Committee, a special task force of the Department of Public Health, City and County of San Francisco, which included representatives of the Departments of Obstetrics, Gynecology and Reproductive Sciences, Medicine and Pediatrics and the AIDS Activities Unit, San Francisco General Hospital; the Department of Pediatrics, University of California, San Francisco; the San Francisco Medical Society; the American Academy of Pediatrics; the San Francisco Gynecologic Society; the San Francisco AIDS Foundation; Bay Area Addiction Research and Treatment, Inc, and the Department of Social Services, the City Attorney's Office and the Superior Court of the City and County of San Francisco.*

These recommendations apply to all infants, children and women of child-bearing age known to be infected or at high risk of being infected with HIV. This includes persons with CDC-defined acquired immunodeficiency syndrome, persons with lesser clinical manifestations of HIV infection such as ARC and persons with asymptomatic HIV infection. They are intended to supplement previously published national guidelines for the foster care and adoption of HIV-infected children and for the prevention of perinatal HIV infection.

We reemphasize that these are interim guidelines that will need to be reviewed as more information becomes available on perinatal transmission, the natural history of HIV infection in pregnancy and childhood and household transmission and also as vaccine and definitive antiviral therapy become available. Finally, it should be clearly stated that all evidence suggests that there is no risk of casual transmission of HIV and that the primary intent of these guidelines is to assure appropriate medical care for infected pregnant women, infants and children.

*Members of the committee were Moses Grossman, MD, chair; Jeffery W. Amory, Arthur F. Back, DrPH, Paul E. Barnes; Martin C. Carr, MD; Wayne W. Clark, PhD; Daniel E. Collins, JD; Nancy G. Corser, RN, FNP; Dean F. Echenberg, MD, PhD; James R. Green, MD; Marty Jessup, RN, MS; Alan C. Johnson, MD, Ron Kletter, PhD, Craig M. McCabe, JD; Larry Meredith, PhD; Glenn Molyneaux, MD; Geraldine F. Oliva, MD, MPH; Ann O'Reilly, MSW; Nancy E. Rubin, MSW; George W. Rutherford, MD; Edwin S. Sarsfield, MSW; Janet Shalwitz, MD; Nancy S. Shaw, PhD, Florence M. Stroud, MSN, MPH; Joan R. Vera, MSW; Diane W. Ward, MD, Daniel H. Weinstein, LLB; David Werdegar, MD, MPH; Constance B. Worley, MD, Donald F. Wong, MD, and Mark M. Young, MA.

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CENTERS FOR DISEASE CONTROL August 14, 1987 / Vol. 36 / No. 1S

MMWR *Supplement*

MORBIDITY AND MORTALITY WEEKLY REPORT

Revision of the CDC Surveillance Case Definition for Acquired Immunodeficiency Syndrome

AIDS Program
Center for Infectious Diseases
Centers for Disease Control
Atlanta, Georgia 30333

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Attachment 1 3-52

3-52

Revision of the CDC Surveillance Case Definition for Acquired Immunodeficiency Syndrome

Reported by
Council of State and Territorial Epidemiologists;
AIDS Program, Center for Infectious Diseases, CDC

INTRODUCTION

The following revised case definition for surveillance of acquired immunodeficiency syndrome (AIDS) was developed by CDC in collaboration with public health and clinical specialists. The Council of State and Territorial Epidemiologists (CSTE) has officially recommended adoption of the revised definition for national reporting of AIDS. The objectives of the revision are a) to track more effectively the severe disabling morbidity associated with infection with human immunodeficiency virus (HIV) (including HIV-1 and HIV-2); b) to simplify reporting of AIDS cases; c) to increase the sensitivity and specificity of the definition through greater diagnostic application of laboratory evidence for HIV infection; and d) to be consistent with current diagnostic practice, which in some cases includes presumptive, i.e., without confirmatory laboratory evidence, diagnosis of AIDS-indicative diseases (e.g., *Pneumocystis carinii* pneumonia, Kaposi's sarcoma).

The definition is organized into three sections that depend on the status of laboratory evidence of HIV infection (e.g., HIV antibody) (Figure 1). The major proposed changes apply to patients with laboratory evidence for HIV infection: a) inclusion of HIV encephalopathy, HIV wasting syndrome, and a broader range of specific AIDS-indicative diseases (Section II.A); b) inclusion of AIDS patients whose indicator diseases are diagnosed presumptively (Section II.B); and c) elimination of exclusions due to other causes of immunodeficiency (Section I.A).

Application of the definition for children differs from that for adults in two ways. First, multiple or recurrent serious bacterial infections and lymphoid interstitial pneumonia/pulmonary lymphoid hyperplasia are accepted as indicative of AIDS among children but not among adults. Second, for children<15 months of age whose mothers are thought to have had HIV infection during the child's perinatal period, the laboratory criteria for HIV infection are more stringent, since the presence of HIV antibody in the child is, by itself, insufficient evidence for HIV infection because of the persistence of passively acquired maternal antibodies < 15 months after birth.

The new definition is effective immediately. State and local health departments are requested to apply the new definition henceforth to patients reported to them. The ·iation of the actual reporting of cases that meet the new definition is targeted for)tember 1, 1987, when modified computer software and report forms should be in ,ace to accommodate the changes. CSTE has recommended retrospective application of the revised definition to patients already reported to health departments. The new definition follows:

1987 REVISION OF CASE DEFINITION FOR AIDS FOR SURVEILLANCE PURPOSES

For national reporting, a case of AIDS is defined as an illness characterized by one or more of the following "indicator" diseases, depending on the status of laboratory evidence of HIV infection, as shown below.

I. Without Laboratory Evidence Regarding HIV Infection

If laboratory tests for HIV were not performed or gave inconclusive results (*See* Appendix I) and the patient had no other cause of immunodeficiency listed in Section I.A below, then any disease listed in Section I.B indicates AIDS if it was diagnosed by a definitive method (*See* Appendix II).

A. Causes of immunodeficiency that disqualify diseases as indicators of AIDS in the absence of laboratory evidence for HIV infection

1. high-dose or long-term systemic corticosteroid therapy or other immunosuppressive/cytotoxic therapy ≤3 months before the onset of the indicator disease
2. any of the following diseases diagnosed ≤3 months after diagnosis of the indicator disease: Hodgkin's disease, non-Hodgkin's lymphoma (other than primary brain lymphoma), lymphocytic leukemia, multiple myeloma, any other cancer of lymphoreticular or histiocytic tissue, or angioimmunoblastic lymphadenopathy
3. a genetic (congenital) immunodeficiency syndrome or an acquired immunodeficiency syndrome atypical of HIV infection, such as one involving hypogammaglobulinemia

B. Indicator diseases diagnosed definitively (*See* Appendix II)

1. candidiasis of the esophagus, trachea, bronchi, or lungs
2. cryptococcosis, extrapulmonary
3. cryptosporidiosis with diarrhea persisting >1 month
4. cytomegalovirus disease of an organ other than liver, spleen, or lymph nodes in a patient >1 month of age
5. herpes simplex virus infection causing a mucocutaneous ulcer that persists longer than 1 month; or bronchitis, pneumonitis, or esophagitis for any duration affecting a patient >1 month of age
6. Kaposi's sarcoma affecting a patient < 60 years of age
7. lymphoma of the brain (primary) affecting a patient < 60 years of age
8. lymphoid interstitial pneumonia and/or pulmonary lymphoid hyperplasia (LIP/PLH complex) affecting a child <13 years of age
9. *Mycobacterium avium* complex or *M. kansasii* disease, disseminated (at a site other than or in addition to lungs, skin, or cervical or hilar lymph nodes)
10. *Pneumocystis carinii* pneumonia
11. progressive multifocal leukoencephalopathy
12. toxoplasmosis of the brain affecting a patient >1 month of age

I. With Laboratory Evidence for HIV Infection

Regardless of the presence of other causes of immunodeficiency (I.A), in the ›resence of laboratory evidence for HIV infection (*See* Appendix I), any disease listed

3-53

case definition. For reporting purposes, the revision adds to the definition most of those severe non-infectious, non-cancerous HIV-associated conditions that are categorized in the CDC clinical classification systems for HIV infection among adults and children (*4,5*).

Another limitation of the old definition was that AIDS-indicative diseases are diagnosed presumptively (i.e., without confirmation by methods required by the old definition) in 10%-15% of patients diagnosed with such diseases; thus, an appreciable proportion of AIDS cases were missed for reporting purposes (*6,7*). This proportion may be increasing, which would compromise the old case definition's usefulness as a tool for monitoring trends. The revised case definition permits the reporting of these clinically diagnosed cases as long as there is laboratory evidence of HIV infection.

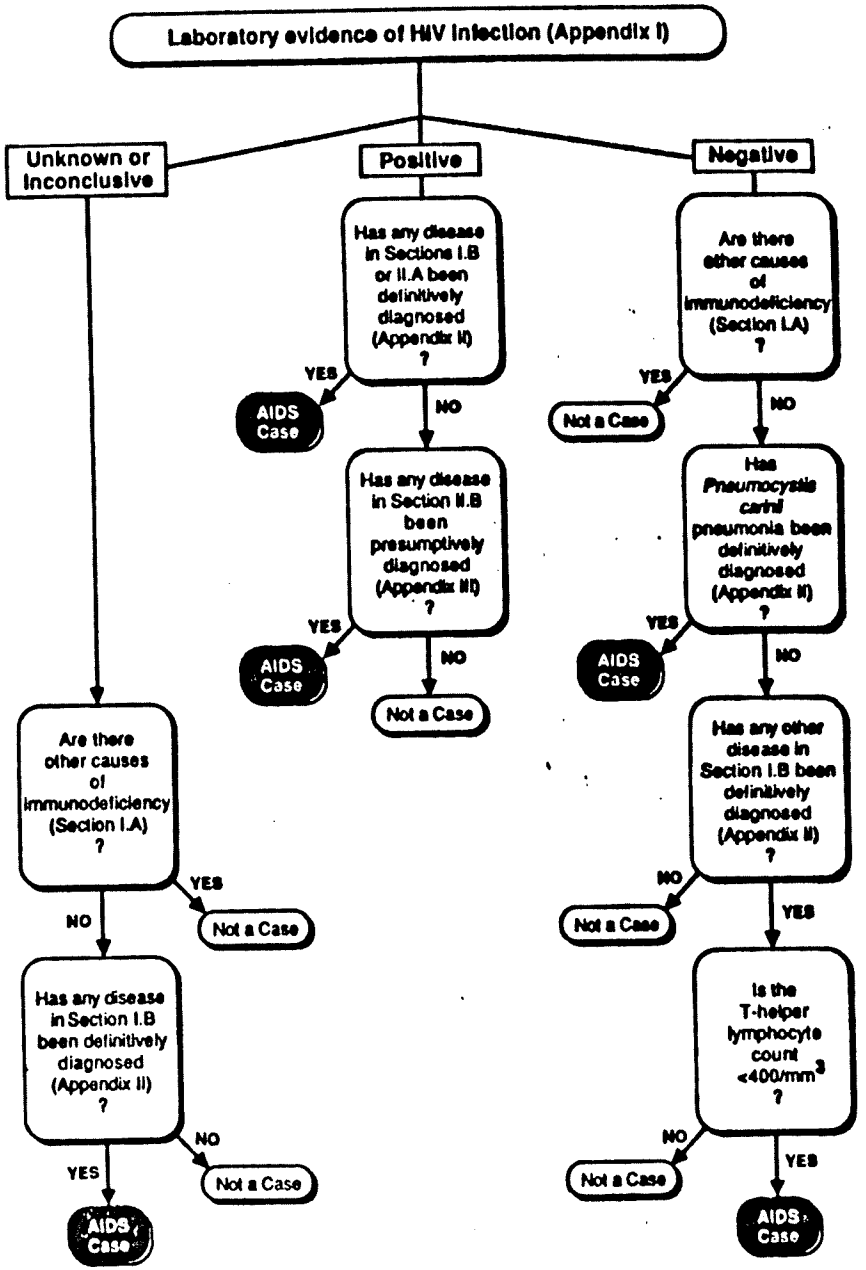
The effectiveness of the revision will depend on how extensively HIV-antibody tests are used. Approximately one third of AIDS patients in the United States have been from New York City and San Francisco, where, since 1985, < 7% have been reported with HIV-antibody test results, compared with > 60% in other areas. The impact of the revision on the reported numbers of AIDS cases will also depend on the proportion of AIDS patients in whom indicator diseases are diagnosed presumptively rather than definitively. The use of presumptive diagnostic criteria varies geographically, being more common in certain rural areas and in urban areas with many indigent AIDS patients.

To avoid confusion about what should be reported to health departments, the term "AIDS" should refer only to conditions meeting the surveillance definition. This definition is intended only to provide consistent statistical data for public health purposes. Clinicians will not rely on this definition alone to diagnose serious disease caused by HIV infection in individual patients because there may be additional information that would lead to a more accurate diagnosis. For example, patients who are not reportable under the definition because they have either a negative HIV-antibody test or, in the presence of HIV antibody, an opportunistic disease not listed in the definition as an indicator of AIDS nonetheless may be diagnosed as having serious HIV disease on consideration of other clinical or laboratory characteristics of HIV infection or a history of exposure to HIV.

Conversely, the AIDS surveillance definition may rarely misclassify other patients as having serious HIV disease if they have no HIV-antibody test but have an AIDS-indicative disease with a background incidence unrelated to HIV infection, such as cryptococcal meningitis.

The diagnostic criteria accepted by the AIDS surveillance case definition should not be interpreted as the standard of good medical practice. Presumptive diagnoses are accepted in the definition because not to count them would be to ignore substantial morbidity resulting from HIV infection. Likewise, the definition accepts a reactive screening test for HIV antibody without confirmation by a supplemental test because a repeatedly reactive screening test result, in combination with an indicator disease, is highly indicative of true HIV disease. For national surveillance purposes, the tiny proportion of possibly false-positive screening tests in persons with AIDS-indicative diseases is of little consequence. For the individual patient, however, a correct diagnosis is critically important. The use of supplemental tests is, therefore, strongly endorsed. An increase in the diagnostic use of HIV-antibody tests could improve both the quality of medical care and the function of the new case definition, as well as assist in providing counselling to prevent transmission of HIV.

FIGURE I. Flow diagram for revised CDC case definition of AIDS, September 1, 1987



HIV encephalopathy* (dementia)	clinical findings of disabling cognitive and/or motor dysfunction interfering with occupation or activities of daily living, or loss of behavioral developmental milestones affecting a child, progressing over weeks to months, in the absence of a concurrent illness or condition other than HIV infection that could explain the findings. Methods to rule out such concurrent illnesses and conditions must include cerebrospinal fluid examination and either brain imaging (computed tomography or magnetic resonance) or autopsy.
HIV wasting syndrome*	findings of profound involuntary weight loss >10% of baseline body weight plus either chronic diarrhea (at least two loose stools per day for ≥ 30 days) or chronic weakness and documented fever (for ≥ 30 days, intermittent or constant) in the absence of a concurrent illness or condition other than HIV infection that could explain the findings (e.g., cancer, tuberculosis, cryptosporidiosis, or other specific enteritis).

*For HIV encephalopathy and HIV wasting syndrome, the methods of diagnosis described here are not truly definitive, but are sufficiently rigorous for surveillance purposes.

APPENDIX III

Suggested Guidelines for Presumptive Diagnosis of Diseases Indicative of AIDS

Diseases	Presumptive Diagnostic Criteria
candidiasis of esophagus	a. recent onset of retrosternal pain on swallowing; AND b. oral candidiasis diagnosed by the gross appearance of white patches or plaques on an erythematous base or by the microscopic appearance of fungal mycelial filaments in an uncultured specimen scraped from the oral mucosa.
cytomegalovirus retinitis	a characteristic appearance on serial ophthalmoscopic examinations (e.g., discrete patches of retinal whitening with distinct borders, spreading in a centrifugal manner, following blood vessels, progressing over several months, frequently associated with retinal vasculitis, hemorrhage, and necrosis). Resolution of active disease leaves retinal scarring and atrophy with retinal pigment epithelial mottling.
mycobacteriosis	microscopy of a specimen from stool or normally sterile body fluids or tissue from a site other than lungs, skin, or cervical or hilar lymph nodes, showing acid-fast bacilli of a species not identified by culture.
Kaposi's sarcoma	a characteristic gross appearance of an erythematous or violaceous plaque-like lesion on skin or mucous membrane. (Note: Presumptive diagnosis of Kaposi's sarcoma should not be made by clinicians who have seen few cases of it.)
lymphoid interstitial pneumonia	bilateral reticulonodular interstitial pulmonary infiltrates present on chest X ray for ≥2 months with no pathogen identified and no response to antibiotic treatment.
Pneumocystis carinii pneumonia	a. a history of dyspnea on exertion or nonproductive cough of recent onset (within the past 3 months); AND b. chest X-ray evidence of diffuse bilateral interstitial infiltrates or gallium scan evidence of diffuse bilateral pulmonary disease; AND c. arterial blood gas analysis showing an arterial pO_2 of <70 mm Hg or a low respiratory diffusing capacity (<80% of predicted values) or an increase in the alveolar-arterial oxygen tension gradient; AND d. no evidence of a bacterial pneumonia.
toxoplasmosis of the brain	a. recent onset of a focal neurologic abnormality consistent with intracranial disease or a reduced level of consciousness; AND b. brain imaging evidence of a lesion having a mass effect (on computed tomography or nuclear magnetic resonance) or the radiographic appearance of which is enhanced by injection of contrast medium; AND c. serum antibody to toxoplasmosis or successful response to therapy for toxoplasmosis.

Patient's Name _____ Telephone No.: (___)_____

Address _____

ACQUIRED IMMUNODEFICIENCY SYNDROME (AIDS) PEDIATRIC CONFIDENTIAL CASE REPORT

(Patients < 13 years of age at time of diagnosis)

Physician's Name: _____ Telephone No.: (___)_____

Hospital _____ Medical Record No.: _____

Person Completing Form: _____ Telephone No.: (___)_____

DEPARTMENT OF HEALTH AND HUMAN SERVICES
PUBLIC HEALTH SERVICE
CENTERS FOR DISEASE CONTROL
AIDS PROGRAM, CID, ATLANTA, GEORGIA 30333

ACQUIRED IMMUNODEFICIENCY SYNDROME (AIDS)
PEDIATRIC CONFIDENTIAL CASE REPORT
(Patients < 13 years of age at time of diagnosis)

FORM APPROVED OMB NO. 0920-0009

This report is authorized by law (Sections 304 and 306 of the Public Health Service Act, 42 USC 242b and 242k). Response in this case is voluntary for federal government purposes, but may be mandatory under state and local statutes. Your cooperation is necessary for the understanding and control of AIDS. Information in the surveillance system that would permit identification of any individual or establishment is collected with a guarantee that it will be held in confidence, will be used only for the purposes stated in the assurance on the reverse of the form, and will not otherwise be disclosed or released without the consent of the individual or the establishment in accordance with Section 308 (d) of the Public Health Service Act (42 USC 242m).

DATE FORM COMPLETED: Mo ___ Day ___ Year ___

CDC PATIENT NUMBER: ___

HEALTH DEPARTMENT USE ONLY

SOUNDEX NAME CODE: ___

STATUS OF THIS REPORT: [1] New Case [2] Update Report

REPORTING HEALTH DEPARTMENT: State _____ City/County _____

STATE PATIENT NUMBER: ___

CITY/COUNTY PATIENT NUMBER: ___

I. BASIC PATIENT INFORMATION

DATE OF BIRTH: Mo ___ Day ___ Year ___

AGE AT DIAGNOSIS OF AIDS: Years ___ Mos ___

CURRENT STATUS: [1] Alive [2] Dead [9] Unknown

DATE OF DEATH: Mo ___ Day ___ Year ___

SEX: [1] Male [2] Female

RACE/ETHNICITY: [1] White (not Hispanic) [2] Black (not Hispanic) [3] Hispanic [4] Asian/Pacific Islander [5] American Indian/Alaskan Native [9] Not Specified

COUNTRY OF BIRTH: [1] US [2] Canada [3] Dominican Republic [4] Haiti [5] Mexico [8] Other (specify) _____

RESIDENCE AT ONSET OF ILLNESS SUGGESTIVE OF AIDS:
City _____ County _____ Zip Code ___
State/Country _____

HOSPITAL WHERE DIAGNOSIS OF AIDS ESTABLISHED:
Name _____
City _____ State/Country _____

II. SOCIAL AND RISK FACTORS

AFTER 1977 AND PRECEDING THE DIAGNOSIS OF AIDS, HAS THIS CHILD: (check all that apply)

	Yes	No	Unk
• Received any blood products (i.e., factor VIII or IX, cryoprecipitate, or fibrinogen) for the treatment of a coagulation disorder?	[1]	[0]	[9]
• If yes, specify disorder: [1] Hemophilia A (factor VIII) [2] Hemophilia B (factor IX) [8] Other, specify: _____			
• Received a transfusion of blood/blood components?	[1]	[0]	[9]
• If yes, and this is only risk factor, give date of first and last transfusion: First Mo ___ Yr ___ Last Mo ___ Yr ___			

AFTER 1977, HAS THIS CHILD'S MOTHER: (check all that apply)

	Yes	No	Unk
• Used needles for self injection of drugs not prescribed by a physician?	[1]	[0]	[9]
• Received any blood products (i.e., factor VIII or IX, cryoprecipitate, or fibrinogen) for the treatment of a coagulation disorder?	[1]	[0]	[9]
• If yes, specify disorder: [1] Hemophilia A (factor VIII) [2] Hemophilia B (factor IX) [8] Other, specify: _____			
• Received a transfusion of blood/blood components?	[1]	[0]	[9]
• Been diagnosed as having AIDS, ARC, or documented HIV infection?	[1]	[0]	[9]
• Had heterosexual relations with any of the following: (check all that apply)			
• I.V. drug abuser	[1]	[0]	[9]
• Bisexual man	[1]	[0]	[9]
• Man with hemophilia/coagulation disorder	[1]	[0]	[9]
• Blood transfusion recipient with AIDS or documented HIV infection	[1]	[0]	[9]
• Man with unknown risk factors, but has AIDS, ARC, or documented HIV infection	[1]	[0]	[9]
• Man born in a country where heterosexual transmission predominates, (e.g., African or Caribbean country) Specify country: _____	[1]	[0]	[9]

MOTHER WAS BORN IN: [1] US [2] Canada [3] Dominican Republic [4] Haiti [5] Mexico [8] Other (specify) _____

FATHER WAS BORN IN: [1] US [2] Canada [3] Dominican Republic [4] Haiti [5] Mexico [8] Other (specify) _____

III. DISEASES INDICATIVE OF AIDS (check all that apply)

DISEASE	DIAGNOSIS Definitive*	DIAGNOSIS Presumptive	DISEASE	DIAGNOSIS Definitive*	DIAGNOSIS Presumptive
Bacterial infections, multiple or recurrent (including Salmonella septicemia)	[1]	NA	Kaposi's sarcoma	[1]	[2]
Candidiasis, bronchi, trachea, or lungs	[1]	NA	Lymphoid interstitial pneumonia and/or pulmonary lymphoid hyperplasia	[1]	[2]
Candidiasis, esophageal	[1]	[2]	Lymphoma, Burkitt's (or equivalent term)	[1]	NA
Coccidioidomycosis, disseminated or extrapulmonary	[1]	NA	Lymphoma, immunoblastic (or equivalent term)	[1]	NA
Cryptococcosis, extrapulmonary	[1]	NA	Lymphoma, primary in brain	[1]	NA
Cryptosporidiosis, chronic intestinal	[1]	NA	*Mycobacterium avium* complex or *M. kansasii*, disseminated or extrapulmonary	[1]	[2]
Cytomegalovirus disease (other than in liver, spleen, or nodes) onset at >1 mo. of age	[1]	NA	*M. tuberculosis*, disseminated or extrapulmonary	[1]	[2]
Cytomegalovirus retinitis (with loss of vision)	[1]	[2]	*Mycobacterium*, of other species or unidentified species, disseminated or extrapulmonary	[1]	[2]
HIV encephalopathy	[1]	NA	*Pneumocystis carinii* pneumonia	[1]	[2]
Herpes simplex: chronic ulcer(s) (>1 mo. duration); or pneumonitis or esophagitis onset at >1 mo. of age	[1]	NA	Progressive multifocal leukoencephalopathy	[1]	NA
Histoplasmosis, disseminated or extrapulmonary	[1]	NA	Toxoplasmosis of brain, onset at >1 mo. of age	[1]	[2]
Isosporiasis, chronic intestinal (>1 mo. duration)	[1]	NA	Wasting syndrome due to HIV	[1]	NA

*Refer to instructions on back for definition of definitive diagnosis.

Of diseases checked above, date first disease diagnosed: Mo ___ Yr ___

IV. LABORATORY DATA

1. HIV SERUM ANTIBODY TESTS:

	Pos	Neg	Inc*	Not Done	Test Date Mo	Test Date Yr
• ELISA	[1]	[0]	[8]	[9]		
• Western blot/immunofluorescence assay	[1]	[0]	[8]	[9]		
• Other (specify) _____	[1]	[0]	[8]	[9]		

*Inc = Inconclusive

2. HIV DETECTION TESTS: (Applicable only if serum antibody tests are not positive.)

	Pos	Neg	Inc*	Not Done
• Culture of HIV confirmed by both specific HIV antigen test and reverse transcriptase detection	[1]	[0]	[8]	[9]
• HIV serum antigen test	[1]	[0]	[8]	[9]
• Other HIV test (specify) _____	[1]	[0]	[8]	[9]

*Inc = Inconclusive

3. If HIV tests were not positive, were not done, or the patient is <15 months of age, does this patient have an immunodeficiency that would disqualify him/her from the AIDS case definition?

Yes	No	Unk
[1]	[0]	[9]

4. IMMUNOLOGIC LAB TEST: (If < 15 months of age or if antibody negative at any age, has this patient had any of the following?)

	Yes	No	Unk
• Low lymphocyte count, (e.g., < 1000 cells/mm^3)	[1]	[0]	[9]
• T-helper cell count <400 cells/mm^3	[1]	[0]	[9]
• Low T helper/T suppressor (e.g., <1.0)	[1]	[0]	[9]

• Total serum Immunoglobulins (mg/dl)
[1] < 1500 [2] 1500 to 2500 [3] > 2500

Test date of highest immunoglobulin level: Mo ___ Yr ___

V. ADDITIONAL INFORMATION OR COMMENTS

_____

_____

3-56

3-56

Patient's Name: _____ Telephone No.: (___)_____

Address: _____

ACQUIRED IMMUNODEFICIENCY SYNDROME (AIDS) ADULT CONFIDENTIAL CASE REPORT

(Patients ≥13 years of age at time of diagnosis)

Physician's Name: _____ Telephone No.: (___)_____

Hospital: _____ Medical Record No.: _____

Person Completing Form: _____ Telephone No.: (___)_____

DEPARTMENT OF HEALTH AND HUMAN SERVICES
PUBLIC HEALTH SERVICE
CENTERS FOR DISEASE CONTROL
AIDS PROGRAM, CID, ATLANTA, GEORGIA 30333

ACQUIRED IMMUNODEFICIENCY SYNDROME (AIDS)
ADULT CONFIDENTIAL CASE REPORT
(Patients ≥13 years of age at time of diagnosis)

FORM APPROVED
OMB NO. 0920-0009

This report is authorized by law (Sections 304 and 306 of the Public Health Service Act, 42 USC 242b and 242k). Response on this case is voluntary for federal government purposes, but may be mandatory under state and local statutes. Your cooperation is necessary for the understanding and control of AIDS. Information in the surveillance system that would permit identification of any individual or establishment is collected with a guarantee that it will be held in confidence, will be used only for the purposes stated in the assurance on the reverse of the form, and will not otherwise be disclosed or released without the consent of the individual or the establishment in accordance with Section 308(d) of the Public Health Service Act (42 USC 242m).

DATE FORM COMPLETED: Mo ___ Day ___ Year ___

CDC PATIENT NUMBER: _____

HEALTH DEPARTMENT USE ONLY

SOUNDEX NAME CODE: _____

STATUS OF THIS REPORT: [1] New Case [2] Update Report

REPORTING HEALTH DEPARTMENT: State _____ City/County _____

STATE PATIENT NUMBER: _____

CITY/COUNTY PATIENT NUMBER: _____

I. BASIC PATIENT INFORMATION

DATE OF BIRTH: Mo ___ Day ___ Year ___

AGE AT DIAGNOSIS OF AIDS: Years ___

CURRENT STATUS: [1] Alive [2] Dead [9] Unknown

DATE OF DEATH: Mo ___ Day ___ Year ___

SEX: [1] Male [2] Female

RACE/ETHNICITY: [1] White (not Hispanic) [2] Black (not Hispanic) [3] Hispanic [4] Asian/Pacific Islander [5] American Indian/Alaskan Native [9] Not Specified

COUNTRY OF BIRTH: [1] U.S. [2] Canada [3] Dominican Republic [4] Haiti [5] Mexico [6] Other (specify)

RESIDENCE AT ONSET OF ILLNESS SUGGESTIVE OF AIDS:

City _____ County _____ Zip Code _____

State/Country _____

HOSPITAL WHERE DIAGNOSIS OF AIDS ESTABLISHED

Name _____

City _____ State/Country _____

II. SOCIAL AND RISK FACTORS

AFTER 1977 AND PRECEDING THE DIAGNOSIS OF AIDS, DID THIS PATIENT: (check all that apply)

	Yes	No	Unk
• Have sexual relations with a male partner?	[1]	[0]	[9]
• Have sexual relations with a female partner?	[1]	[0]	[9]
• Use needles for self injection of drugs not prescribed by a physician?	[1]	[0]	[9]
• Receive any blood products (i.e., factor VIII or IX, cryoprecipitate, or fibrinogen) for the treatment of a coagulation disorder?	[1]	[0]	[9]
• If yes, specify disorder: [1] Hemophilia A (factor VIII) [2] Hemophilia B (factor IX) [8] Other, specify _____			
• Have heterosexual relations with any of the following: (check all that apply)			
• I.V. drug abuser	[1]	[0]	[9]
• Bisexual man	[1]	[0]	[9]
• Person with hemophilia/coagulation disorder	[1]	[0]	[9]
• Blood transfusion recipient with AIDS or documented HIV infection	[1]	[0]	[9]
• Person with AIDS or documented HIV infection	[1]	[0]	[9]
• Person born in a country where heterosexual transmission predominates, (e.g., African or Caribbean country) Specify country _____	[1]	[0]	[9]
• Has patient received a transfusion of blood/blood components?	[1]	[0]	[9]
• If yes, and this is only risk factor, give date of first and last transfusion: First Mo ___ Yr ___ Last Mo ___ Yr ___			
• Work in a health care or clinical laboratory setting?	[1]	[0]	[9]
• If yes, specify occupation _____			

III. DISEASES INDICATIVE OF AIDS (check all that apply)

DISEASE	DIAGNOSIS Definitive*	DIAGNOSIS Presumptive	DISEASE	DIAGNOSIS Definitive*	DIAGNOSIS Presumptive
Candidiasis, bronchi, trachea, or lungs	[1]	NA	Kaposi's sarcoma	[1]	[2]
Candidiasis, esophageal	[1]	[2]	Lymphoma, Burkitt's (or equivalent term)	[1]	NA
Coccidioidomycosis, disseminated or extrapulmonary	[1]	NA	Lymphoma, immunoblastic (or equivalent term)	[1]	NA
Cryptococcosis, extrapulmonary	[1]	NA	Lymphoma, primary in brain	[1]	NA
Cryptosporidiosis, chronic intestinal	[1]	NA	*Mycobacterium avium* complex or *M. kansasii*, disseminated or extrapulmonary	[1]	[2]
Cytomegalovirus disease (other than in liver, spleen, or nodes)	[1]	NA	*M. tuberculosis*, disseminated or extrapulmonary	[1]	[2]
Cytomegalovirus retinitis (with loss of vision)	[1]	[2]	*Mycobacterium*, of other species or unidentified species, disseminated or extrapulmonary	[1]	[2]
HIV encephalopathy	[1]	NA	*Pneumocystis carinii* pneumonia	[1]	[2]
Herpes simplex: chronic ulcer(s) (>1 mo. duration); or bronchitis, pneumonitis, or esophagitis	[1]	NA	Progressive multifocal leukoencephalopathy	[1]	NA
Histoplasmosis, disseminated or extrapulmonary	[1]	NA	Salmonella septicemia, recurrent	[1]	NA
Isosporiasis, chronic intestinal (>1 mo. duration)	[1]	NA	Toxoplasmosis of brain	[1]	[2]
			Wasting syndrome due to HIV	[1]	NA

*Refer to instructions on back for definition of definitive diagnosis.

Of diseases checked above, date first disease diagnosed: Mo ___ Yr ___

IV. LABORATORY DATA

	Pos	Neg	Inc*	Not Done
1. HIV SERUM ANTIBODY TESTS:				
• ELISA	[1]	[0]	[8]	[9]
• Western blot/immunofluorescence assay	[1]	[0]	[8]	[9]
• Other (specify) _____	[1]	[0]	[8]	[9]

*Inc = Inconclusive

	Pos	Neg	Inc*	Not Done
2. HIV DETECTION TESTS: (Applicable only if serum antibody tests are not positive.)				
• Culture of HIV confirmed by both specific HIV antigen test and reverse transcriptase detection	[1]	[0]	[8]	[9]
• HIV serum antigen test	[1]	[0]	[8]	[9]
• Other HIV test (specify) _____	[1]	[0]	[8]	[9]

*Inc = Inconclusive

	Yes	No	Unk
3. If HIV tests were not positive or were not done, does this patient have an immunodeficiency that would disqualify him/her from the AIDS case definition?	[1]	[0]	[9]
4. IS ABSOLUTE T-HELPER LYMPHOCYTE COUNT <400 per mm³? (Applicable only if tests results are negative for HIV infection.)	[1]	[0]	[9]

V. ADDITIONAL INFORMATION OR COMMENTS

_____

_____

3-57

3-57

Christian Science Committee on Publication For Kansas

820 Quincy Suite K
Topeka, Kansas 66612

Office Phone
913/233-7483

To: Senate Committee on Public Health and Welfare

Re: Senate Bill 445

It is requested that the following wording be inserted as Section 18 on line 0317, with subsequent sections renumbered:

> Any judge of the district court within the county in which the license is to be issued is authorized and empowered, on joint application by both applicants for a marriage license, to waive the requirements as to medical examination, laboratory tests, and certificates and to authorize the clerk of the district court to issue the license, if all other requirements of the marriage laws have been complied with and the judge is satisfied, by affidavit or other proof, that the examination or tests are contrary to the tenets or practices of the religious creed of which the applicant is an adherent and that the public health and welfare will not be injuriously affected thereby.

Inclusion of the suggested wording would allow the district judge to consider a person's religious objections to the medical examination and tests and waive the requirements, if appropriate.

Both applicants would have to request waiver of the requirements.

Each couple's request would be considered separately, with granting of relief at the discretion of the judge upon presentation of satisfactory proof that such examinations and tests conflicted with sincerely held religious beliefs.

The proposed amendment is similar to the statutes of several states which currently require blood tests for sexually transmitted diseases.

Keith R. Landis
Committee on Publication
for Kansas

Senate Public Health & Welfare
January 26, 1988
Attachment 4