



# NEWS

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Ron J. Anderson, M.D. Chairman  
Texas Board of Health

Robert Bernstein, M.D., F.A.C.P.  
Commissioner

Recommendations for Assisting in the  
Prevention of Perinatal Transmission  
of HTLV-III/LAV and AIDS  
Viral Isolates for February 1986

TEXAS STATE DOCUMENTS  
COLLECTION

Bureau of Epidemiology, 1100 West 49th Street, Austin, Texas 78756-3180 (512-458-7207)

## RECOMMENDATIONS FOR ASSISTING IN THE PREVENTION OF PERINATAL TRANSMISSION OF HUMAN T-LYMPHOTROPIC VIRUS TYPE III/LYMPHADENOPATHY-ASSOCIATED VIRUS AND ACQUIRED IMMUNODEFICIENCY SYNDROME\*

The information and recommendations in this document are intended to assist health-care providers and state and local health departments in developing procedures to prevent perinatal transmission of human T-lymphotropic virus type III/lymphadenopathy-associated virus (HTLV-III/LAV), the virus that causes acquired immunodeficiency syndrome (AIDS).

This document contains recommendations for providing counselling and, when indicated, testing for antibody to HTLV-III/LAV for women who are at increased risk of acquiring the virus and who are either pregnant or may become pregnant. It is important that these women know they are at risk, as well as know and understand their HTLV-III/LAV-antibody status, so they can make informed decisions to help prevent perinatally acquired HTLV-III/LAV.

Through counselling, uninfected women can learn how to avoid becoming infected, and infected women can choose to delay pregnancy until more is known about perinatal transmission of the virus. If already pregnant, infected women can be provided information for managing the pregnancy and caring for the child.

Currently available data indicate that most pediatric HTLV-III/LAV infections and AIDS are acquired perinatally from infected women, but additional studies are needed to better quantify the risk of transmission from an infected pregnant woman to the fetus or newborn.

The recommendations below pertain to women. However, men who are HTLV-III/LAV-antibody positive should also be counselled regarding the risks of sexual and perinatal transmission, so they can refer for counselling and testing their sex partners who may be pregnant or considering pregnancy.

### BACKGROUND

**Pediatric AIDS Cases due to Perinatal Transmission.** As of December 1, 1985, 217 (1%) of the 15,172 AIDS cases reported to CDC occurred among children under 13 years of age. Sixty percent of these children are known to have died. These 217 cases represent only the more severe manifestations of HTLV-III/LAV infection. Less severe manifestations, often described as AIDS-related complex (ARC), are not reported to CDC, so the number of children with clinically significant illness attributable to HTLV-III/LAV infection is greater than the reported cases of pediatric AIDS. In addition, a number of infected children are probably asymptomatic.

Of the 217 reported pediatric AIDS patients, 165 (76%) have as their only known risk factor a mother belonging to a group with increased prevalence of HTLV-III/LAV infection. An additional 18% of the pediatric cases are attributable to transfusions of blood or blood products, while risk factor information is missing or incomplete on the remaining 6%. Of the 217 children with AIDS, 48% had mothers who were intravenous (IV) drug abusers; 17% had mothers who were born in Haiti; and 10% had mothers who were sex partners of either IV drug abusers or bisexual men.

Of the patients with perinatally acquired AIDS, 45% resided in New York City, while Florida and New Jersey accounted for an additional 32%.

\*Reprinted from: CDC. MMWR 1985;34:721-6, 731.



**Mechanisms of Perinatal Transmission.** It is believed that HTLV-III/LAV is transmitted from infected women to their fetuses or offspring during pregnancy, during labor and delivery, or perhaps shortly after birth. Transmission of the virus during pregnancy or labor and delivery is demonstrated by two reported AIDS cases occurring in children who had no contact with their infected mothers after birth. One was delivered by Caesarean section.

Transmission of the virus after birth has been implicated in one case of HTLV-III/LAV infection in a child born to a mother reported to have acquired the infection from a postpartum blood transfusion. Since she breastfed the child for six weeks, the authors suggested breastfeeding as the possible mode of transmission. Recently, HTLV-III/LAV has been isolated from the breast milk of infected women.

**Risk of Perinatal Transmission from Infected Mothers.** The rate of perinatal transmission of HTLV-III/LAV from infected pregnant women is unknown; however, available data suggest a high rate. In one study of 20 infants born to infected mothers who had already delivered one infant with AIDS, 13 (65%) had serologic and/or clinical evidence of infection with HTLV-III/LAV several months after birth. Since these women were selected on the basis of having previously transmitted HTLV-III/LAV perinatally, this study may overestimate the average risk of transmission for all infected pregnant women.

Perinatal transmission from an infected mother to her newborn is not inevitable. Of three children born to women who became infected with HTLV-III/LAV by artificial insemination from an infected donor, all were in good health and negative for antibody to the virus more than one year after birth. Another child, born to a woman who was already pregnant at the time of AIDS diagnosis and was demonstrated to be viremic, was seronegative, culture negative, and healthy at birth and at four months of age. In a retrospective study evaluating nine children under five years of age whose mothers were later diagnosed with AIDS, two (22%) had antibody to HTLV-III/LAV. The infection status of these women during pregnancy was unknown.

In these studies, the rate of transmission ranged from 0% (0/3) to 65% (13/20). Additional studies are needed to better define the rate of transmission and variables associated with it.

**Risk of Illness among Infected Pregnant Women.** Pregnancy is associated with suppression of cell-mediated immunity and increased susceptibility to some infections. The T-helper to T-suppressor ratio is decreased during normal pregnancy, being lowest in the third trimester, and returns to normal approximately three months postpartum. It is not known whether pregnancy increases an infected woman's risk of developing AIDS or ARC, but one study suggests it does. Fifteen infected women who were well at time of delivery were followed an average of 30 months after the births of their children. Five (33%) subsequently developed AIDS; seven (47%) developed AIDS-related conditions; and only three (20%) remained asymptomatic. These results may not apply to all infected pregnant women, but they do suggest an increased likelihood of developing disease when an HTLV-III/LAV infection occurs in association with pregnancy.

**Prevalence of HTLV-III/LAV Infection.** Counselling and testing for antibody to HTLV-III/LAV, when indicated, to reduce perinatal transmission of AIDS will be most beneficial in populations of women with increased prevalence of the virus (Table 1). These include: women who have used drugs intravenously for nonmedical purposes; women who were born in countries where heterosexual transmission is thought to play a major role; women who have engaged in prostitution; and women who are or have been sex partners of men who abuse IV drugs, are bisexual, have hemophilia, were born in countries where heterosexual transmission is thought to play a major role, or have evidence of HTLV-III/LAV infection.

The prevalence of antibody to HTLV-III/LAV in US populations of men and women ranges from less than 0.01% in female blood donors to as high as 74% in men with hemophilia. Among heterosexual IV drug abusers, the prevalence of HTLV-III/LAV infection ranges from 2% to 59% in various geographic areas. Seroprevalence among the heterosexual partners of persons at increased risk for AIDS varies from 10% in female partners of asymptomatic, seropositive hemophilia patients to 71% in the female partners of men with AIDS or ARC. Among prostitutes, the HTLV-III/LAV

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**Additional Considerations.** These recommendations will be revised as additional information becomes available. It is recognized that provision of the recommended professional counselling, HTLV-III/LAV-antibody testing and associated specialized medical services will take time to implement and may stress available resources, particularly in public facilities, which are most greatly affected. Health-care providers, social-service personnel, and others involved in educating and caring for HTLV-III/LAV-infected persons should be aware of the potential for social isolation and should be sensitive to the need for confidentiality. They should be familiar with federal and state laws, regulations, and policies that protect the confidentiality of clinical data and test results. Each institution should assure that specific mechanisms are in place to protect the confidentiality of all records and to prevent the misuse of information. Anonymous testing would not be appropriate if it prevents adequate counselling and medical follow-up evaluation.

Hospital precautions for managing infected women and infants should be patterned after those for caring for patients with HTLV-III/LAV infection. Additional recommendations will follow.

#### DEVELOPMENT OF THESE RECOMMENDATIONS

The information and recommendations contained in this document were developed and compiled by CDC and the US Public Health Service in consultation with individuals representing: the Conference of State and Territorial Epidemiologists, the Association of State and Territorial Health Officials, the American Public Health Association, the United States Conference of Local Health Officers, the American Medical Association, the American College of Obstetricians and Gynecologists, the American Academy of Pediatrics, the Planned Parenthood Federation of America, the American Venereal Disease Association, the Division of Maternal and Child Health of the Health Resources and Services Administration, the National Institute on Drug Abuse of the Alcohol, Drug Abuse, and Mental Health Administration, the National Hemophilia Foundation, the Haitian Medical Association, the American Bar Foundation, and the Kennedy Institute of Ethics at Georgetown University. The consultants also included representatives of the departments of health of the areas with the largest number of perinatally transmitted pediatric AIDS cases: New York City, Florida, and New Jersey. These recommendations may not reflect the views of all individual consultants or the organizations they represented.

Table 1.  
Prevalence of HTLV-III/LAV antibody in heterosexual  
populations -- United States

Populations	Location	No. Tested	Prevalence (%)
Intravenous drug abusers	New York City	274	59
	NJ* <5 miles from NYC†	204	56
	NJ 5-10 miles from NYC	124	43
	NJ >100 miles from NYC	55	2
	San Francisco	53	9
Persons with hemophilia			
	Factor VIII concentrate recipients	234	74
	Factor IX concentrate recipients	36	39
	Cryoprecipitate only recipients	15	40
Female prostitutes	Seattle, Washington	92	5
	Miami, Florida	25	40
Female sex partners of men with AIDS or ARC (two separate studies)		7	71
		42	47
Female sex partners of men with asymptomatic HTLV-III/LAV infection		21	10
Haitians	New York City	97	4
	Miami, Florida	129	8
Female blood donors	Atlanta, Georgia	28,354	0.01

\*New Jersey

†New York City

\* \* \*

## VIRAL ISOLATES FOR FEBRUARY 1986

<u>Virus</u>	<u>County of Residence of Patient(s)</u> <u>(Number of Isolates)</u>
Adenovirus	Bowie (1), Dallas (3), Galveston (2), Jefferson (1), Tarrant (1), Taylor (1)
Cytomegalovirus	Bexar (2), Dallas (13), Ector (1), Galveston (1)
Coxsackie (B4)	Bexar (1)
Influenza A(H3N2)	Bell (1), Bexar (2), Dallas (1), Harris (24)
Influenza B	Bell (1), Dallas (1), El Paso (2), Galveston (4), Tarrant (2), Travis (2), Harris (150)
Parainfluenza (3)	Dallas (1)
Rotavirus	Bell (16), Bexar (3), Dallas (5), Jefferson (1), Lubbock (3)
Respiratory Syncytial virus	Bell (10), Bexar (9), Dallas (5), Ector (1), Galveston (2), Lubbock (3)
Varicella/Zoster	Dallas (1)
<u>Chlamydia trach.</u>	Bell (6), Bexar (3), Dallas (2), Travis (25), Harris (33)

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