

AMERICAN ACADEMY OF PEDIATRICS

Committee on Pediatric AIDS and Committee on Adolescence

Adolescents and Human Immunodeficiency Virus Infection: The Role of the Pediatrician in Prevention and Intervention

ABSTRACT. Half of all new human immunodeficiency virus (HIV) infections in the United States occur among young people between the ages of 13 and 24. Sexual transmission accounts for most cases of HIV during adolescence. Pediatricians can play an important role in educating adolescents about HIV prevention, transmission, and testing, with an emphasis on risk reduction, and in advocating for the special needs of adolescents for access to information about HIV.

ABBREVIATIONS. HIV, human immunodeficiency virus; AIDS, acquired immunodeficiency syndrome.

INTRODUCTION AND BACKGROUND

Age-appropriate education concerning sexuality, drug use, and disease prevention is an important aspect of preadolescent and adolescent health care. The American Academy of Pediatrics has previously addressed important issues of adolescent sexuality and sexually transmitted diseases.¹⁻³ Specific information regarding sex and sexually transmitted diseases, including human immunodeficiency virus (HIV) infection and acquired immunodeficiency syndrome (AIDS), is an essential component of anticipatory guidance provided by pediatricians to their adolescent patients. Pediatricians play an important role together with parents in discussing the importance of postponing sexual activity, safer sex, and sexually transmitted diseases with adolescents. In addition, pediatricians can be advocates for school health education on HIV prevention. Educating adolescents about sex does not increase sexual activity.⁴

Half of all new HIV infections in the United States occur in young people between the ages of 13 and 24.⁵ Thus, pediatricians and adolescents should be concerned and knowledgeable about HIV infection. The risk of exposure to HIV varies by prevalence of HIV infection in the community, sexual behaviors, and concurrent substance use. Sexual transmission accounts for most cases of HIV infection during adolescence. Females account for more than one half of all new cases in adolescents, and three quarters of new infections in adolescent females occur via heterosexual transmission. Among adolescent males, at least two thirds of HIV transmissions occur via male-to-male sex.⁶ African American and Hispanic adoles-

cents are at a disproportionately high risk of becoming infected with HIV.

Although abstinence from sexual intercourse (including oral sex) is the safest method of avoiding sexual exposure to HIV, it is impossible to predict which adolescents will remain abstinent. Therefore, education about safer sexual practices, including latex condom use, and other barrier methods should be provided so adolescents might opt to stop or alter their sexual behavior. Alternatives to sexual intercourse, such as masturbation and petting, should be discussed with adolescents. Adolescents should be educated about the potential consequences of sexually transmitted diseases, including deleterious effects on ultimate reproductive capacity (eg, infertility, ectopic pregnancy).

Addressing the consequences of drug use is an essential part of adolescent health care. Although injection drug use is not common among adolescents, any needle sharing, including that done in administration of anabolic steroids, carries a risk of transmission of HIV. In addition, the use of noninjection drugs, including alcohol, marijuana, and cocaine, is associated with an increased risk of contracting HIV infection, because impaired judgment associated with intoxication may increase the likelihood of unsafe sexual practices. Fear of HIV infection may not be sufficient motivation for a young person to forgo substance use, but pediatricians nevertheless should include HIV on the list of risks inherent to such behavior.

Adolescents at risk for HIV because of treatment with blood or blood products should understand that heat treatment of factor VIII concentrates and testing of blood donors for HIV antibody since April 1985 has greatly reduced the risk of HIV transmission from transfusion of blood and blood products. Adolescents should be educated about precautions to reduce the risk of transmission of HIV or other bloodborne pathogens from contact with blood or open wounds (as in contact sports).⁷

COUNSELING

Counseling of adolescents should be directed at behaviors that place adolescents at risk. Adolescents should be informed of the risk of continued potential exposure to HIV and other sexually transmitted diseases so that they might opt to stop or alter their sexual behavior, use latex condoms, and engage in safer sex. Adolescents with a sexually transmitted disease, in particular ulcerative diseases such as herpes simplex or syphilis, should be informed about

The recommendations in this statement do not indicate an exclusive course of treatment or serve as a standard of medical care. Variations, taking into account individual circumstances, may be appropriate.

PEDIATRICS (ISSN 0031 4005). Copyright © 2001 by the American Academy of Pediatrics.

the association between these conditions and transmission of HIV. In addition to serving as a marker for unprotected sexual intercourse, these conditions increase the likelihood of HIV transmission.

Discussion of the dangers of sharing needles and methods for sterilizing needles may be appropriate for the adolescent who continues injection drug use despite efforts to interrupt this behavior.

TESTING FOR HIV

Because it is estimated that more than half of all HIV-infected adolescents have not been tested and, thus, are unaware of their infection, discussion also should address availability and importance of testing for the presence of HIV. Testing is important for prevention of HIV transmission and for referral of HIV-infected adolescents to care. A negative HIV test result can allay anxiety resulting from a high-risk event or high-risk behaviors and is a good opportunity to counsel on, and to reduce future, high-risk behavior. Pediatricians should remember that HIV seropositivity may not appear for several months after infection (window period), so retesting after 6 months is advisable in the context of recent or ongoing high-risk behaviors. The risk reduction activities discussed previously should be reinforced. For adolescents with a positive HIV test result, it is important to provide support, address medical and psychosocial needs, and arrange referrals to appropriate care. Awareness of a positive HIV test result helps facilitate reasoned planning of future behavior, which can affect not only the welfare of HIV-infected adolescents but also that of as-yet uninfected partners or contacts. Results should be reported in a straightforward way, and adolescents should be given time to react before the meaning of the test result is discussed. Adolescents may be linked with a specialist in adolescents and HIV disease or an infectious diseases specialist. Pediatricians should recognize the stress of being informed of the presence of HIV infection and offer support and referral to appropriate counseling as needed. In addition, pediatricians are encouraged to arrange for follow-up and ensure that such adolescents enter appropriate care programs.

Advances in the treatment of HIV infection and AIDS include early use of combination regimens of antiretroviral medications, which can relieve HIV-related symptoms and prolong survival. An important benefit of knowledge of HIV seropositivity for adolescent females who become pregnant is the ability to reduce the risk of mother-to-child HIV transmission by intervening with antiretroviral therapy, including zidovudine. Zidovudine, started in the second trimester and given through delivery and then to the infant for 6 weeks, reduces the HIV vertical transmission rate by two thirds, from 25% to 8%.⁸ Combination regimens of antiretroviral medications currently being studied and in widespread clinical use, may reduce the risk of HIV vertical transmission even further.

Adolescents who are infected with HIV may exhibit reluctance or refusal to inform sexual partners of their serostatus. In such cases, pediatricians

should explore with their patients the reasons for refusal, which may include fear of rejection or even potential violence. Pediatricians should offer support and counseling as needed, and if helpful, provide the assistance of public health experts in partner notification, who will maintain the anonymity of the HIV-infected individual. Pediatricians also may be able to offer assistance in informing the sexual partner(s) through role playing and/or providing a safe and supportive setting in which to make the disclosure.

CONSENT AND CONFIDENTIALITY

Laws concerning consent and confidentiality for HIV care and treatment vary from state to state, and pediatricians need to be familiar with the laws of the state in which they practice. In general, individuals 18 years or older may consent to their own medical care. Similarly, individuals younger than 18 years who are self-supporting, married, parents themselves, or members of the armed services may consent to their own health care without the need for parental involvement. In addition, public health statutes and legal precedents allow for medical evaluation and treatment of minors for certain categorical illnesses, in particular sexually transmitted diseases, without parental knowledge or consent. To date, however, not every state has explicitly defined HIV infection as a condition for which evaluation or treatment of a minor may proceed without parental consent.

Some adolescents may not wish to involve a parent in decisions relative to evaluation or treatment of HIV infection. Such reluctance may arise from a desire not to inform family members about HIV status or a reluctance to reveal behaviors that placed the adolescent at risk for infection. Although it is usually best to involve the family in the health care of adolescents, this is not always the case. Deference to parental wishes to be informed must not interfere with needed evaluation or treatment of adolescents. For adolescents who are able to understand the implications of testing and treatment and are capable of informed consent, and in the absence of local laws to the contrary, it is best to proceed on the basis of this consent alone rather than insisting on parental involvement. Similarly, an adolescent's consent should be obtained before release of any information concerning HIV status.

Generally, pediatricians should respect an adolescent's request for privacy. Nevertheless, questions about whether pediatricians may disclose or receive information about a patient's HIV status without the consent of the patient can arise in several contexts, including disclosure by obstetricians to pediatricians, mandated reporting to health departments, reporting to institutional authorities and employers, the care of accused or convicted sex offenders, instances of accidental needle sticks involving known HIV-infected patients, and issues of charting HIV status in the medical record. Although each of these contexts may at times involve an adolescent patient, they are not specific to young people. Accordingly, disclosure of the HIV status of an adolescent should be held to the same legal and ethical standards as disclosure of

the HIV status of an adult. A concern most relevant to the care of HIV-infected adolescents is the limits of confidentiality as they would apply to sexual partners. A difficult question is whether to disclose HIV status to the sexual partner(s) of a patient known to be HIV positive and who persistently refuses to agree to such disclosure. There should be little debate about the desirability of using all reasonable means to persuade an infected person to inform his or her partner(s) on a voluntary basis.

Physicians who intend to disclose information about HIV infection status to sexual partners should consider their duty to inform adolescent patients before testing that results will be disclosed to partners and under what circumstances. Partner notification (without revealing the source of exposure) is available in many areas through local health departments. Maintaining confidentiality is important. Disclosure of HIV infection status is regulated by state laws. Disclosure of HIV infection status to school authorities without an adolescent's consent generally is not indicated.⁹ When desired by an adolescent, pediatricians can play an important role in disclosure and education of school authorities.

CONCLUSIONS AND RECOMMENDATIONS

1. Information about HIV infection and AIDS and the availability of HIV testing should be regarded as an essential component of the anticipatory guidance provided by pediatricians to all adolescent patients. This guidance should include information about HIV prevention and transmission and implications of infection.
2. Prevention guidance should include helping adolescents understand the responsibilities of becoming sexually active. Information should be provided on abstinence from sexual activity and use of safer sexual practices to reduce the risk of unplanned pregnancy and sexually transmitted diseases, including HIV. All adolescents should be counseled about the correct and consistent use of latex condoms to reduce risk of infection.
3. Availability of HIV testing should be discussed with all adolescents and should be encouraged with consent for those who are sexually active or substance users.
4. Although parental involvement in adolescent health care is a desirable goal, consent of an adolescent alone should be sufficient to provide evaluation and treatment for suspected or confirmed HIV infection.
5. A negative HIV test result can allay anxiety resulting from a high-risk event or high-risk behaviors and is a good opportunity to counsel on reducing high-risk behaviors to reduce future risk.
6. For adolescents with a positive HIV test result, it is important to provide support, address medical and psychosocial needs, and arrange linkages to appropriate care.
7. Pediatricians should help adolescents with HIV infection to understand the importance of informing their sexual partners of their potential exposure to HIV. Pediatricians can provide this help

8. Pediatricians should advocate for the special needs of adolescents for information about HIV, access to HIV testing and counseling, and HIV treatment.

COMMITTEE ON PEDIATRIC AIDS, 2000–2001

Mark W. Kline, MD, Chairperson
 Robert J. Boyle, MD
 Donna Futterman, MD
 Peter L. Havens, MD
 Susan King, MD
 Lynne M. Mofenson, MD
 Gwendolyn B. Scott, MD
 Diane W. Wara, MD
 Patricia N. Whitley-Williams, MD

LIAISON

Mary Lou Lindgren, MD
 Centers for Disease Control and Prevention

STAFF

Eileen Casey, MS

COMMITTEE ON ADOLESCENCE, 2000–2001

David W. Kaplan, MD, MPH, Chairperson
 Ronald A. Feinstein, MD
 Martin M. Fisher, MD
 Jonathan D. Klein, MD, MPH
 Luis F. Olmedo, MD
 Ellen S. Rome, MD, MPH
 W. Samuel Yancy, MD

LIAISONS

Paula J. Adams Hillard, MD
 American College of Obstetricians and Gynecologists
 Glen Pearson, MD
 American Academy of Child and Adolescent Psychiatry
 Diane Sacks, MD
 Canadian Paediatric Society

SECTION LIAISON

Barbara L. Frankowski, MD, MPH
 Section on School Health

STAFF

Tammy Piazza Hurley

REFERENCES

1. American Academy of Pediatrics, Committee on Adolescence. Condom availability for youth. *Pediatrics*. 1995;95:281–285
2. American Academy of Pediatrics, Committee on Adolescence. Contraception and adolescents. *Pediatrics*. 1999;104:1161–1166
3. American Academy of Pediatrics, Committee on Adolescence. Sexually transmitted diseases. *Pediatrics*. 1994;94:568–572
4. Kirby D, Short L, Collins J, et al. School-based programs to reduce sexual risk behaviors: a review of effectiveness. *Public Health Rep*. 1994; 109:339–360
5. Futterman D, Chabon B, Hoffman ND. HIV and AIDS in adolescents. *Pediatr Clin North Am*. 2000;47:171–188
6. US Department of Health and Human Services, Public Health Service. *HIV/AIDS Surveillance Report*. Atlanta, GA: Centers for Disease Control and Prevention; 1999;11:1–42
7. American Academy of Pediatrics, Committee on Sports Medicine and Fitness. Human immunodeficiency virus and other blood-borne viral pathogens in the athletic setting. *Pediatrics*. 1999;104:1400–1403
8. Centers for Disease Control and Prevention. Public Health Service Task Force recommendations for the use of antiretroviral drugs in pregnant women infected with HIV-1 for maternal health and reducing perinatal HIV-1 transmission in the United States. *MMWR Morb Mortal Wkly Rep*. 1998;47(RR-2):1–30. Updates available at: <http://www.hivatis.org>
9. American Academy of Pediatrics, Committee on Pediatric AIDS. Education of children with human immunodeficiency virus infection. *Pediatrics*. 2000;105:1358–1360

Adolescents and Human Immunodeficiency Virus Infection: The Role of the Pediatrician in Prevention and Intervention

Committee on Pediatric AIDS and Committee on Adolescence

Pediatrics 2001;107;188

DOI: 10.1542/peds.107.1.188

Updated Information & Services

including high resolution figures, can be found at:
<http://pediatrics.aappublications.org/content/107/1/188>

References

This article cites 7 articles, 5 of which you can access for free at:
<http://pediatrics.aappublications.org/content/107/1/188#BIBL>

Subspecialty Collections

This article, along with others on similar topics, appears in the following collection(s):
Current Policy
http://www.aappublications.org/cgi/collection/current_policy
Adolescent Health/Medicine
http://www.aappublications.org/cgi/collection/adolescent_health:medicine_sub
Infectious Disease
http://www.aappublications.org/cgi/collection/infectious_diseases_sub
HIV/AIDS
http://www.aappublications.org/cgi/collection/hiv:aids_sub

Permissions & Licensing

Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at:
<http://www.aappublications.org/site/misc/Permissions.xhtml>

Reprints

Information about ordering reprints can be found online:
<http://www.aappublications.org/site/misc/reprints.xhtml>

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN®



PEDIATRICS®

OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

Adolescents and Human Immunodeficiency Virus Infection: The Role of the Pediatrician in Prevention and Intervention

Committee on Pediatric AIDS and Committee on Adolescence

Pediatrics 2001;107;188

DOI: 10.1542/peds.107.1.188

The online version of this article, along with updated information and services, is located on the World Wide Web at:

<http://pediatrics.aappublications.org/content/107/1/188>

Pediatrics is the official journal of the American Academy of Pediatrics. A monthly publication, it has been published continuously since 1948. Pediatrics is owned, published, and trademarked by the American Academy of Pediatrics, 345 Park Avenue, Itasca, Illinois, 60143. Copyright © 2001 by the American Academy of Pediatrics. All rights reserved. Print ISSN: 1073-0397.

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN®

