AIDS Risk Assessment In Primary Care

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Background: **Human immunodeficiency virus (HIV) disease is a major cause of premature death in the United States. Primary care physicians can and should play an important role in its prevention. Detailed acquired immunodeficiency syndrome (AIDS) education, however, is not a cost-effective use of physicians' time for the great majority of patients, most of whom are at low risk for HIV infection.**

Methods: **Recommendations for AIDS prevention in the primary care setting were formulated based on a review of the published literature and on the author's personal experience as an AIDS epidemiologist and a practicing family physician.**

Results and Conclusions: **Because risk for HIV infection is not uniform, primary care physicians can have the greatest impact by concentrating their prevention efforts on the minority of patients who are at high risk. This article proposes a 30-second AIDS risk assessment for use in routine adult health care. Patients found to be at high risk should receive counseling on HIV risk reduction based on their individual needs. Also described are other situations when primary care providers should talk with their patients about AIDS prevention. (J Am Board Fam Pract 1994; 7:44-8.)**

Prevention is our best weapon in the fight against the acquired immunodeficiency syndrome (AIDS). As physicians we know we should contribute to AIDS prevention, but often we are not sure how. It is impractical to take a detailed sexual history and provide one-on-one AIDS prevention education for every patient; consequently, some physicians avoid AIDS prevention altogether. In fact, a selective and focused approach is more appropriate and takes far less time than many physicians might expect.

Successful efforts to prevent any disease must be based on the epidemiologic facts. This article addresses key questions about the extent and distribution of the AIDS epidemic and discusses implications for the day-to-day practice of medicine. An objective review of the epidemiology of human immunodeficiency virus (HIV) leads to the inescapable conclusion that prevention must be targeted at a select group of high-risk patients. For primary care physicians, the main priority should be to learn which patients are at high risk and to focus preventive efforts on them.

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Methods

Guidelines for AIDS prevention in the primary care setting were formulated based on a review of the published literature, as well as on the author's personal experience as an AIDS epidemiologist and as a practicing family physician.

Why AIDS Prevention Is Important

AIDS is the second leading cause of death for 25- to 44-year-old men in the United States and one of the top five causes of death for women of the same ages.[1,2] In many cities AIDS is the leading killer of both young men and women.[3] It caused 776,000 years of potential life lost before the age of 65 years in the US population in 1991, the same order of magnitude as cancer or heart disease.[4] Responsible primary care physicians no longer have the option of deciding whether to do AIDS prevention; the question today is how to do it and where to concentrate one's efforts.

It is important to be realistic about what can be accomplished in a busy primary care setting. Patients coming in for acute care might not appreciate talking about their sex lives or drug use histories rather than the sore throat or back pain that brought them to the office. On the other hand, patients who periodically visit for chronic conditions are usually older and likely to be at low

risk for HIV infection. In most practices the best opportunity for AIDS prevention is when patients have appointments for a physical examination or health care maintenance, including visits for Papanicolaou smears and family planning services, as well as employment and insurance-related examinations.

But even then time is limited. A 30-minute appointment for a history and physical examination leaves only a few minutes for prevention of all types. HIV prevention must compete, for example, with counseling about diet, exercise, injury prevention, alcohol use, and smoking cessation. For most patients, some key questions to assess risk and a few words of caution to make sure the patient receives the message that AIDS prevention is important are all that is possible and appropriate.

The Distribution of the Epidemic

Of the 45,500 AIDS cases reported in 1991, 82.4 percent were in men who have sex with men or injection drug users; 6.3 percent were attributed to heterosexual contact in the United States.[5] The proportion of cases attributed to heterosexual transmission has been gradually rising, and projections for the next few years are that this trend will continue.[6] This increase, however, does not necessarily indicate a self-sustaining epidemic of HIV within the general heterosexual population. Most heterosexual cases result from primary contact with injection drug users[7,8]; more often than not, the victims are African-American or Hispanic inner-city women.[5] More than 15 years after HIV began spreading, the epidemic remains concentrated to a remarkable degree among a few high-risk groups and their immediate sexual contacts. This pattern has important implications for prevention.

Physicians are accustomed to concentrating prevention efforts on patients at increased risk for a particular disease. Few would argue with more frequent mammograms for a woman with a family history of breast cancer or with more aggressive treatment of hypercholesterolemia for a man who is also hypertensive. The same is true, only much more so, for HIV prevention, for which the risk of AIDS in some patients varies by a thousandfold compared with others.[9]

Some AIDS prevention workers say that, as AIDS moves into its second decade, it no longer makes sense to talk about high-risk groups because we are now all at risk. Others emphasize the need for primary care physicians to provide AIDS education to every patient.[10,11] This message is well intentioned and egalitarian, but to provide education to every patient is not practical. The physician who would provide the same counseling to all patients would be serving none well. For patients at low risk a few words about the importance of condom use in any but long-term, mutually monogamous relationships are all that is indicated. For those at high risk the physician must make sure they understand their danger and encourage positive steps for risk reduction. Such counseling might involve scheduling one or more separate visits to discuss HIV exposure and prevention, often including antibody testing with pre- and post-test counseling.

Risk, by definition, is a number between zero and one. Few people, if any, have a risk for HIV infection that is truly zero, but for most people the risk is very small. Attempting to provide HIV prevention counseling to everyone at *any* risk includes far too many patients and defeats the purpose of focusing on the small number of patients who are truly at *high* risk. To be effective at HIV prevention, we must overcome our fear of quantifying risk and concentrate our efforts where they are most needed.

How to Determine Who Is at High Risk

Determining whether a patient is at high risk for HIV infection is not always easy. Both physicians and patients might be uncomfortable with questions about sex and drugs. Simply including these questions in a written questionnaire is probably not sufficient, as many individuals at risk will be unwilling to reveal themselves in this fashion.[12] It is better for the physician or well-trained ancillary staff member to ask these questions face-to-face in a private setting. Although it might be impossible to single out every patient at high risk, experiences from blood banks show that most can be ascertained with a few carefully chosen questions.[8,13-16]

Tables 1 and 2 list screening questions for men and women. The question regarding blood transfusion, while unlikely to yield many persons at high risk, is a nonthreatening way to start. The question about men having sex with men is deliberately worded. It is not the same as asking a man if he is homosexual or "gay": some men who have sex with men do not think of themselves as falling

Table 1. Screening Questions for HIV Risk for Men.

Did you receive a transfusion of blood or blood products between 1978 and 1985?
Have you ever, even once, used any kind of injected drug?
Have you ever, even once, had sex with a man?
Have you ever, even once, had sex with a prostitute or with someone who has used injected drugs?
Do you have any other reason to suspect you might be at risk for AIDS or HIV infection?

into these categories, particularly those among ethnic minorities.[17] The "even once" wording of several questions is borrowed from experience with blood donors.[13,18] These questions do not address every possible high-risk situation for HIV infection. For example, a patient whose partner is a hemophiliac or comes from central Africa would not be picked up unless he or she knew enough to answer "yes" to the last question. The goal is to find as many high-risk patients as possible with a realistic number of questions.

Some patients who belong to high-risk groups might not currently be at high HIV risk. Examples would include gay men in a long-term, mutually monogamous relationship in which both have tested HIV negative or injection drug users who never share needles. Such patients should be observed closely to encourage continued avoidance of high-risk behavior and to find out whether their circumstances change. Unfortunately, physicians must be cautious about noting risk status in the medical record because of the possibility of discrimination or loss of insurance.

One group at potentially high risk who might be missed by these screening questions deserves special mention. As noted above, African-American and Hispanic women have the highest risk of heterosexually transmitted HIV infection, usually from an injection drug-using partner. Nonwhite women from low-income, inner-city settings thus deserve special priority for AIDS prevention education, even when not otherwise at high risk, based on their increased likelihood of coming into contact with an HIV-infected partner.

Table 2. Screening Questions for HIV Risk for Women.

Did you receive a transfusion of blood or blood products between 1978 and 1985?
Have you ever, even once, used any kind of injected drug?
Do you have any reason to suspect you have had sex with a bisexual man or one who has used injected drugs?
Do you have any other reason to suspect you might be at risk for AIDS or HIV infection?

Missed Patients

Physicians might worry that epidemiological truth could turn into a clinical trap for the individual patient. How can a physician be sure that the patient who answers "no" is not lying or will not start practicing high-risk behaviors the next day or will not become infected in a low-risk heterosexual encounter? Would it not be better to give all our patients AIDS prevention counseling and not worry about trying to figure out who is at high risk?

The answer to this question is practical rather than theoretical. In an ideal world, physicians might provide every patient with one-on-one AIDS education. In the real world, this is not practical or cost-effective, and time spent on AIDS education must be taken away from other activities that might be more important for most patients. In any case, physicians still need to ask the screening questions because, when we do decide to give AIDS prevention counseling, it would be senseless to do so without the resulting information. The counseling needed by an injection drug user is quite different from that needed by a woman who suspects her husband is bisexual. We can advise all patients to avoid high-risk practices and partners (already implied by asking the screening questions), but further counseling must be individualized.

Instead of focusing on the downside of targeting HIV prevention efforts — that some patients who need AIDS education might be passed by — it is important to remember the larger positive side: targeting allows us to direct our efforts where they can do the most good. An analogy to lung cancer prevention is useful. It is true that some smokers hide their smoking (an increasingly stigmatized behavior) from their physicians. It is also true that nonsmokers can get lung cancer. It would not be harmful for physicians to counsel all patients about the dangers of radon gas and asbestos exposure. But few would dispute that the best use of a physician's time for lung cancer prevention is to single out patients who smoke and to help them quit.

An additional benefit of focusing on patients at high risk for HIV infection is that they can be

offered HIV antibody testing, a procedure few would advocate for all patients.[19] Testing high-risk patients not only increases the impact of concomitant counseling[20] but also helps to catch infected patients at an early stage. Early diagnosis can benefit not only the patient through early medical intervention but also society through appropriate counseling to reduce the chance the patient will infect others.[21] Although HIV testing thus complements HIV risk assessment and prevention counseling, it must never be seen as a replacement. HIV antibody testing finds high-risk patients only after they become infected; the goal of prevention is to find them before.

Other Times to Talk about AIDS

Adult health maintenance is not the only context in which primary care physicians should talk about AIDS with their patients. AIDS prevention and the need for condom use should be discussed with any patient presenting with a sexually transmitted disease (STD). Not only does an STD diagnosis indicate to the physician the risk of HIV, it is likely to do the same to the patient. Consequently, STD patients are often especially receptive to HIV prevention counseling and antibody testing. Patients with diagnoses related to injection drug use are equally receptive.

Physicians should also discuss HIV prevention with patients planning travel to the developing world. HIV infection is highly prevalent or spreading rapidly in many developing countries. *The Medical Letter* devoted only two lines of its most recent "Advice for Travelers" to AIDS prevention compared with 16 lines for Japanese B encephalitis, a disease that affects about 1 US citizen per year.[22] Similarly, physicians who are meticulous about prescribing malaria prophylaxis and vaccinations to travelers might sometimes forget to talk about AIDS.

Adolescents also deserve special priority for HIV prevention. Adolescents are or soon will be establishing lifetime patterns of sexual behavior. They should be counseled on responsible sexuality, prevention of STDs, and contraception. Such counseling remains an important part of anticipatory guidance, just as it was before the AIDS epidemic started.

In 1991 only 19 percent of patients spoke with a physician about AIDS.[23] Usually the patient rather than the physician brought up the subject. Some of the most important conversations about AIDS are those initiated by patients. The patient who asks about AIDS is already interested in the problem and is therefore more likely to be receptive to advice for prevention.

Commentary

This article deals only with one-on-one AIDS prevention education and counseling by physicians. The conclusion that such counseling is not practical for everyone does not apply to AIDS prevention campaigns conducted in other ways, such as through the mass media. Everyone needs to learn how AIDS is transmitted and prevented, but not always from a physician.

Some might find this advice politically distasteful because it emphasizes directing AIDS prevention toward those at highest risk rather than reinforcing the concept that we are all at risk. The intention of this article is not to stigmatize those at high risk but to be sure they receive special help for AIDS prevention. A physician who would deny these patients the help they need in the name of equality is putting nonmedical considerations ahead of the health of patients.

Even those philosophically opposed to the recommendations in this article would probably be pleased with the results if the recommendations were widely implemented. All adults seeing a physician for routine care would receive HIV risk assessment and a few words about condoms. Those found to be at high risk, as well as patients with STDs, would get more extended counseling, often including HIV antibody testing. Adolescents would receive education on STD and HIV prevention as part of their anticipatory guidance, and all patients would be encouraged to bring up their own concerns about AIDS. Surely then primary care physicians would be making an important contribution to the fight against AIDS.

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