Hospital-Based Routine HIV Testing Programs

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The debate about the risks and harms resulting from the diagnosis of an asymptomatic human immunodeficiency virus (HIV) infection was resolved, at least for adults, after the demonstration of sufficient benefit from zidovudine[1] and pneumocystosis prophylaxis.[2] Now we must promote the HIV testing necessary to apprise asymptomatic HIV-infected persons of their status. To this end, HIV counseling and testing sites are widely available. But these sites require untested persons to come forward. Furthermore, since the benefits of detecting an HIV infection cannot be realized practically without entering a healthcare system, there is no rational benefit to the anonymous testing they can provide. Public health officials have recommended hospital-based programs for certain generally advocated medical activities, such as immunization.[3,4] This editorial considers hospital-based, routine HIV testing programs as a way of effecting broader HIV screening.

The choice of hospitals for routine HIV screening is demographically disadvantageous. HIV infection is overrepresented among young adults and those without adequate health insurance. Except for those ill with HIV disease, these two groups are underrepresented among hospitalized persons. But there is insufficient recognition that the institution of screening programs can be considered on a location-specific basis. For instance, in a recent analysis of the cost and benefits of premarital screening, Centers for Disease Control (CDC) authors considered only the national aggregate.[5] More challenging and relevant judgements should have been offered about the prevalence threshold for screening and the extent to which any states exceed that threshold.

Clearly, there are some hospitals where the prevalence of HIV infection is high enough to warrant routine voluntary screening. The relevant statistic is not the overall prevalence of HIV infection among all admitted patients. Persons acknowledging HIV risk activities and persons with illness suggestive of HIV disease should be subtracted. There is already widespread agreement that HIV testing should be encouraged among such persons. The Sentinel Hospital Surveillance Group in the CDC's Family of Surveys[6] most closely approximates the appropriate ratio. Persons were excluded from this unlinked HIV testing program if they had diagnosed HIV infection, illness compatible with HIV disease or a history of needle sharing (although not if they had a history of unprotected male-to-male sexual contact). The prevalence of HIV antibody in the tested specimens was greater than 1% in nine of the 26 hospitals surveyed.

In this issue, Harris and colleagues[7] present the best available information on the institution and practicality of a hospital-based, all patient, voluntary HIV screening program. One of their most important findings is that such a program can be implemented without major disruption or reaction. However, even after vigorous efforts, only about half of the patients consented to be tested. Their study was carried out in 1987; it is unclear whether the passage of time would result in an increase or decrease in patient participation. On one hand, healthcare worker anxiety about occupational transmission has probably declined-perhaps reducing the extent to which healthcare workers would promote the program. On the other hand, anxiety about HIV infection among persons without traditional risk factors may be increasing and the stigma of HIV infection may be dissipating—increasing the willingness of patients to participate. With respect to patient acceptance of testing,

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the dependence on a positive physician attitude was remarkable. Vigorous physician support would be required for any screening program. Finally, Harris, et al. further undercut the infection control rationale for HIV screening. Except for patients undergoing surgery, the authors were unable to detect any differences in the management of patients known to be HIV infected.

The report of Harris, et al. offers some help in decisions confronting a hospital implementing an HIV screening program.

Are special, rapid testing capabilities needed? All hospitals are capable of producing certain laboratory results promptly, and hospitals performing organ donor evaluations must be able to provide rapid HIV serologies. However, the logistical efforts undertaken by Harris and his associates to provide large-scale HIV testing on virtually every shift and for electively admitted patients prior to hospitalization seem unwarranted in the absence of an infection control rationale for testing. Furthermore, less devotion to rapid turnaround would permit Western blot confirmatory testing to be performed before notifying patients of a reactive EIA result.

What level of consent should be obtained? Texas law requires written consent, so Harris and his colleagues had no decision to make. However, there are two other alternatives: verbal consent and passive consent. Passive consent here describes the absence of objection after a patient is informed that an HIV test is intended. There are further subdistinctions: the intent-to-test notification could be in writing or verbal; the notification could explicitly indicate that the patient had the right to refuse testing.

How informed should patients be? Harris, et al. provided a consent form that must have had some information about the test. Patients asking for additional information were given a "question-answer" flyer. Nursing personnel or physicians provided further information. The ethical and legal analysis of this information process requires details not provided. Was the initial consent part of a sheaf of papers requiring signatures, sometimes being reviewed by an acutely ill patient or stressed relatives? Were the consent form and flyer reviewed by knowledgeable persons skeptical about HIV testing? How available to inquiring patients were persons more knowledgeable about HIV issues than the average physician and nurse?

Being informed is a matter of degree. Legalisms such as "reasonable person" standards don't accommodate the fact that people vary greatly in the extent to which they can assimilate information and want it. Clearly patients should be as informed as they want to be, almost without limit. The question then is how much information should a hospital be obliged to present to a patient who is not actively requesting it. The one-on-one, 20-to-30 minute pretest counseling session advocated for counseling and testing sites is not a reasonable use of resources for HIV screening in low prevalence contexts with persons not acknowledging HIV risk activities. On the other hand, certain basic information must be provided. Note that the critical issue is not the form of the consent (written, verbal or passive). Obtaining written consent is no guarantee that patients are adequately informed.

Personally, I believe it sufficient to be sure the patient is aware an HIV test is intended and that there are real disadvantages to being diagnosed as HIV-infected. It is valid to assert that, on balance, an HIV-infected person is better off knowing of the infection. This must be communicated in a way that invites additional questions. If they are asked, authoritative answers must be available from unhurried persons. If the patient declines the test it should not be performed. Written, verbal or passive consent are all acceptable, provided the patient is adequately informed. Written information, either as a part of a consent or as an information sheet, is necessary only if the patient will not otherwise be informed. However, most physicians ordering HIV tests should find written material helpful.

The extent to which hospitals are responsible for breaches in HIV testing consent standards in states where no legislation has been passed is unresolved. Although there are a host of recommendations (this editorial included) that special information should be provided and consent obtained before there is HIV testing, the bulk of in-hospital HIV tests are ordered, as are other laboratory tests, without specific patient communication.[8] As yet, case law does not establish that a physician ordering an HIV test without patient consent (or after a patient has declined it) could be subject to a successful malpractice claim or criminal action. It is even less clear if such a claim could be successfully extended to the hospital. On the one hand, physician ordering of blood tests has long been an unrestricted activity. On the other hand, hospitals have had responsibility for physician practices within their walls.[9] Time and case law will tell the tale. In any case, should hospital-based HIV testing programs be created, there will no longer be doubt about the hospital's responsibility for achieving proper patient information and consent.

Let me finish with two minor criticisms of Dr. Harris and colleagues' article. First, I believe it is unwise to refer to a reactive anti-HIV EIA from an HIV-uninfected person as a "false positive" in the absence of a positive confirmatory test. The vast majority of persons with such results, absent known risk activities, are HIV-uninfected.[10] Lack of HIV infection can be readily confirmed by the now commercially available polymerase chain reaction. The use of the word "positive" may aggravate the anxiety of the patient and confuse the debate about HIV testing. Hospitals where a reactive EIA will be reported before the confirmatory test result is available should, in my opinion, specify a "reactive" EIA.

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If the EIA is to be reported as "positive," it should be accompanied by information that it is a screening test and the confirmatory test is pending. Second, I believe it is also unwise to reveal the exact number of occupational HIV transmissions (even when the number is zero) that have occurred in one's hospital. It is perhaps relevant in the authors' article, since they wanted to establish that there was no special impetus to screening patients. However, revealing exact small numbers of any important event has the potential for inadvertent compromise of confidentiality. When exact numbers are provided, the time of a transmission can be deduced. Healthcare workers who have suffered an HIV exposure have often disclosed the exposure to coworkers. If it becomes known when an occupational HIV transmission occurred, the coworkers might correctly conclude the exposed healthcare worker was the victim.

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