

## **CDC REVISED RECOMMENDATIONS FOR HIV SCREENING**

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**Interview by Diane Johnson**

DJ: As of the end of last year, the CDC is now recommending HIV testing and screening as part of all routine medical care for patients between the ages of 13 and 64. This seems like a radical departure from the past when patients had to request those tests. What are the key reasons for the change?

BB: Actually it isn't such a radical departure. Since 1993, the CDC has been recommending that hospitals' in higher prevalence areas offer all patients HIV screening, particularly those at high risk. But, unfortunately, most institutions have not really implemented that recommendation. These recommendations build on that. People don't really know what the prevalence of HIV is or don't really know how much there might be in a patient population because they haven't been screening for it. Increasingly, we've been getting information that indicated there were a large number of people who were HIV infected but were never getting tested. That provided part of the basis for our recommendation. The other important developments were several cost-effectiveness studies published in 2005 and 2006 showing that screening for HIV was as cost-effective as many other health screening programs, including pap smears, colon cancer, mammography, etc. So with that combination: knowing people were being seen in healthcare settings and not being tested for HIV even though they were HIV-infected and knowing that the screening is cost-effective led to the change in the recommendations.

DJ: Can you elaborate on cost-effective?

BB: Well, cost-effectiveness is related to several things. The cost of the test, but also what the outcomes are in terms of the increase in life-expectancy, differences in disability, and reduction in subsequent transmission also play a role in cost-effectiveness.

DJ: What advantages are there with early detection?

BB: First of all, data show that about 40% of people overall get their first HIV test within one year of the time they are diagnosed with AIDS. The incubation period between getting infected and developing AIDS is about 10 years, so that means that many people have been infected, and have been potentially infectious to other people, for 10 years before they ever find out they are HIV infected. The advances in the therapies, especially since the mid-1990's when the highly effective antiretroviral therapy was introduced, has drastically reduced mortality and increased both the quality of life and life expectancy with HIV infection. And so early intervention, monitoring, and starting therapy before there's been severe damage to the immune system have a very

important effect on extending life and improving health.

DJ: So taking the antiretroviral can actually postpone the onset of the disease, but can't prevent its progression?

BB: It postpones the onset of the severe immune deficiency which is a condition that leads to all the death and disability. It doesn't cure it. It's similar to the treatment of hypertension--you need to stay on the therapy.

DJ: The recommended age range for screening is 13 to 64. At the youngest end of the spectrum, do you expect objections and controversy similar to the HPV vaccine controversy that's going on right now?

BB: The CDC conducts something called the Youth Risk Behavior Survey. The 2005 survey indicated that 47% of high school students reported that they had had sexual intercourse at least once, and 37% of those sexually active students had not used a condom. So we looked at a lower age range for these recommendations. The evidence that we have regarding sexual activity, and in particular for younger women acquiring HIV infection, makes it important that it now become part of the repertoire for which people are screened. If it's caught early, lifesaving therapy can be provided and subsequent transmissions eliminated. This has also been endorsed by the American Academy of Pediatrics

DJ: And at the other end of the age range, I've been reading about HIV infections rapidly increasing in people in their 60's and 70's. Why was age 64 selected?

BB: The basis for routine screening at that age is that persons age 50-64 account for about 13% of new HIV diagnoses that are reported to the CDC. People older than 65 so far comprise less than 2% of new HIV diagnoses. So the cut-off is based on the likelihood of being infected, as well as the cost-effectiveness analysis. But I was at a briefing in Washington recently. There was a person there from Howard University Hospital where they started doing routine screening. They mentioned they had diagnosed unsuspected HIV in an 82 year old person. Clearly it occurs.

DJ: Are there any risks or side effects from HIV screening tests?

BB: There's no risk. It's a simple blood test like other blood screening tests. You might have a little bruise where the blood is drawn. There is virtually no risk associated with the test.

DJ: Are the tests expensive? I understand there are different kinds of tests, including a home testing kit.

BB: The routine or conventional test, called an EIA, is inexpensive. It depends on what the lab charges--and of course we have no control over that—but it usually costs

about \$8. The big difference is in the time to get results. Because the EIAs are run in batches (the typical EIA procedure uses a plate that can perform 90 tests in a batch) most laboratories run them only once a day. (Some hospital labs with lower volume may run them only once or twice a week.) Therefore, the time necessary to get results depends not only on the procedure, but the processing. In general, however, labs do not report positive EIA test results until they have been repeated, and if positive, followed by a confirmatory test. Thus, it may take from several days to a week before the laboratory reports a positive test result.

The rapid test, which gives you immediate results, costs between \$12 to \$15. So we don't consider it a particularly expensive test. As for the home kit, the only thing that's currently available is a home sample collection kit, where a person pricks their finger, puts blood onto a specimen card, and sends it in to a laboratory where they use a conventional test. That is just as accurate as when a sample is collected in a doctor's office.

DJ: Do you know if insurance would cover these tests?

BB: Well, the way insurance works right now is that they pay for recommended screening tests and they pay for tests that are associated with a diagnosis. So if someone came in and they had something that might be related to HIV, I think there is no question that insurance would pay for it. The issue of insurance paying for screening tests is always one that takes a while to develop. When the CDC issues recommendations and other medical societies endorse them (so far the American Medical Association and the American College of Obstetrics and Gynecology have issued the same recommendations), they become standard of care and insurance companies pay for them. At the current time, certain insurance companies have already said they would pay for screening. Others are saying paying for it as a screening test is 'under consideration.' But we anticipate that most insurance companies will begin to pay for HIV screening.

DJ: Is there a difference in efficacy between the EIA and the rapid test?

BB: No, both tests are screening tests and they're both very accurate. Accuracy of the rapid test and the conventional test are both well over 99%. In addition, if there is a positive test you do have to have confirmation, not dissimilar to a PSA test, which is a screening test but does not diagnose cancer until you do further kinds of testing. But to be absolutely certain after the screening test, you need a confirmatory blood work to clinch the diagnosis.

DJ: How often should the testing be done?

BB: We're recommending at the current time that everyone should know their HIV status. We don't recommend that people get tested more than once unless they have some kind of risk for HIV, such as multiple sexual partners or men having sex with men. In those cases we recommend people get screened at least every year.

The big problem in terms of older people is that data shows that they don't think they have a chance of being infected, so they get diagnosed later in the course of the disease. Because they are diagnosed later, they respond less well to the therapy since their disease is already further along. It's a part of the reason that we are recommending screening up age 64 on a routine basis--to try to catch people before they go on to develop HIV disease.

DJ: Screening people for this disease is sensitive and, in case they had it, potentially a discriminatory one. How will clinicians handle suggesting this screening? Will they get supplemental training or is it something they are already comfortable with?

BB: Well there are two sides to what you're talking about. One of the problems in the past for a lot of people was that HIV was perceived as something you only had to worry about if you were in a high-risk behavior group--injection drug users, homosexual men, or something like that. So just getting an HIV test was associated with some degree of stigma. It was like admitting that you'd had some kind of past indiscretion that you might prefer not to admit. So we think that recommending the screening for everybody is going to reduce the stigma associated with testing.

The other issue is the persistent stigma that is associated with having HIV disease itself, because there's a lot of fear and concern around that. There are programs that are working with that and treating it in primary care settings. Of course people who have more experience in taking care of people with HIV disease are providing the initial training. So, in response to your question, we don't think clinicians will need additional training to do the screening itself, but it may be that some clinicians are less familiar with how to actually monitor and manage HIV disease. They may need to acquire a consultation or referral to a specialist, similar to sending someone to an oncologist after they're diagnosed with cancer.

DJ: Is it common for clinicians to refer to an HIV specialist?

BB: It's increasingly common because there are a very large number of drugs that are available--there are now about 29 first-line drug combinations available. So it might require getting advice from an HIV specialist. There are two organizations of HIV specialists that also provide information about referrals resources. One is the American Academy of HIV Medicine and the other is the HIV Medicine Association. They both have referral and consultation services to help clinicians who may not be familiar with an HIV specialist.

DJ: If a person is diagnosed with HIV, what should they expect from their doctor? What would the next steps be?

BB: Well they do need to confirm the diagnosis, but because the tests are really accurate, it's very rare that the test result is not confirmed. So you then need to get some additional testing to figure out what stage the disease is in. Depending what that shows, you would have to have periodic monitoring to determine the course of the disease and when you might need to get started on the antiretroviral therapy. Recommendations for exactly when therapy should be started are updated about twice

a year. The primary recommendation is to evaluate a person by doing blood tests, including a viral load test and a CD4 lymphocyte count. The lymphocytes are the part of the immune system that HIV damages. When the CD4 count starts to drop, that's when you start to think about initiating the antiretroviral therapy.

DJ: Which groups are most at risk now and has that changed since the 1980's?

BB: As a transmission category, men who have sex with men still comprise the largest proportion of HIV infected people. Among women, heterosexual contact is the most common source of HIV infection. We think that certainly has changed since the 1980's when this was primarily a disease among men who have sex with men and injection drug users.

DJ: In December, the National Institutes of Health reported that, "...given similar patterns of risk behaviors across racial groups, young African American adults are more likely to become infected [with HIV]." Even those people without high risk behavior (multiple sexual partners, alcohol, tobacco, or drug abuse) they "were more than seven times as likely as young white adults in the same category to harbor STD/HIV infection." Can you comment on this?

BB: I didn't see that article, but in January, the American Journal of Public Health reported on heterosexually acquired HIV. The big message for people to recognize is that HIV is a sexually transmitted disease. Since the proportion of infections among injection drug users is decreasing and transmission as a result of blood transfusions has been eliminated in this country, the primary way HIV infection is currently spread is through sexual activity. So if you talk about African Americans with no risk factors, I think what you're talking about is the absence of traditional risk factors related to injection drug use or potentially men having sex with men. Their infections are more often a result of heterosexual contact.

DJ: What kind of outreach is recommended for those who do not seek out routine healthcare?

BB: There are two circumstances here. One, the CDC and other public health agencies have for a long time maintained specific outreach programs. We try to get people who are at high risk into programs and into HIV care. An important goal of the new recommendations is directed toward the population that only receives medical care from emergency departments. They don't have a source of primary care, so we want to make sure that these people can have the opportunity to get an HIV test wherever they encounter the healthcare system.

Recently in the MMWR (Morbidity and Mortality Weekly Report) we published an analysis from South Carolina where they were able to link everyone that was reported with HIV and AIDS to data on health care visits. What they found is that 73% of the people who were diagnosed with HIV or AIDS had had multiple (an average of 4) healthcare visits before they got diagnosed with HIV, when it could have been found earlier. And almost 80% of those healthcare visits were made to emergency rooms. So the issue is not only people who have routine healthcare, but people who access

healthcare and rely on emergency departments as their main source of healthcare. That's a place we are particularly interested in focusing some of our screening efforts.

DJ: Did I leave anything out that we should know?

BB: I think that you covered everything. I think our key message is that finding out that you have HIV does give you access to lifesaving treatment. In the early days when the CDC made its first recommendations in 1993 for more wide spread screening, therapy was not nearly as effective. So there was much less benefit in finding out whether you were HIV infected. The second thing that we haven't talked much about is the issue of what this might do for the whole epidemic. Because it's been shown that people who are unaware that they are HIV infected are about 3 ½ times more likely to transmit HIV than people who know about it. So in addition to the benefit for individual patients, there is a considerable benefit for their loved ones and for the people around them in reducing the chance of transmitting HIV to someone else.

Also I want to reiterate that we need to communicate even to people in the older range. It's of concern to us that survival for older people is shorter, because HIV is usually diagnosed later. So we'd like to make sure that older patients benefit from advances in treatment as much as younger people and that they are getting tested. Make sure the guys over 60 get the message as well.

DJ: Thank you so much for your time, Dr. Branson, and for bringing us up-to-date on this epidemic and how people can take care of themselves.

**Editor's Note:** To find the nearest location where the test can be provided,  
- Call: **1.800.CDC-INFO**  
- On the Web: [www.hivtest.org](http://www.hivtest.org)