

Adoption of Rapid HIV Testing in Hospitals

The Human Immunodeficiency Virus (HIV), the virus that causes Acquired Immunodeficiency Syndrome (AIDS), infects about 40,000 people in the United States each year. HIV/AIDS is a devastating disease that attacks the body's immune system and is a leading cause of illness and death in the United States. The cumulative number of people in the United States who have died of AIDS or related complications is about 550,000.

Problems of Undiagnosed HIV Cases

Today it is estimated that about 1.2 million people in the United States are living with HIV/AIDS. Of these, about one-fourth, or nearly 300,000 people, do not know that they are infected.

T A B L E 1

Key Snapshot of the U.S. Epidemic Today

- Number of new HIV infections each year: 40,000
- Number of people living with HIV/AIDS: 1.2 million, including more than 400,000 with AIDS
- Number of deaths among people with AIDS in 2005: 17,011
- Percent of people with HIV/AIDS not in care: 42%-59%
- Percent of people infected with HIV who don't know it: 25%

Source: The Henry J. Kaiser Family Foundation, "The HIV/AIDS Epidemic in the United States," *HIV/AIDS Policy Fact Sheet*, November 2006.

Undiagnosed cases, misdiagnosis, and late diagnosis of HIV infection pose serious problems. People who are unaware they are infected cannot benefit from clinical care to treat their illness or, possibly, to prevent death. In addition, some of these HIV-infected individuals unknowingly transmit AIDS to others.

During the mid to late 1990s, advancements in treating HIV—such as highly active antiretroviral therapy (HAART)—greatly slowed the progression of the infection and led to a significant decrease in AIDS-related deaths.

The Promise of HIV Rapid Testing

Testing has long been a cornerstone in HIV prevention. But its effectiveness is limited when individuals fail to return for test results and by missed opportunities to provide tests that can immediately link individuals to follow-up care.

The availability of rapid HIV tests presents a new opportunity to test more people in more settings, without requiring return visits or costly tracking and follow-up to deliver results to individuals. After individuals become aware they are infected with HIV, they are more likely to take steps to protect themselves as well as prevent themselves from transmitting the virus to others.

Using Rapid HIV Tests

Pilot studies using routine, rapid HIV tests in emergency departments have produced promising results. HIV screening did not disrupt normal ED operations. In addition, it proved more feasible, economical, and convenient than the standard testing protocol. Rapid HIV screening also reached many individuals without access to HIV testing. In labor and delivery, rapid tests give physicians the opportunity to identify HIV-positive mothers and provide appropriate treatment that can reduce perinatal transmission to their babies.

In recent years, the U.S. Food and Drug Administration has approved several types of rapid HIV tests that provide results in 20 to 40 minutes, including some that are designed as point-of-care tests.

For more information on currently used rapid HIV tests, go to www.hret.org/hret/programs/content/rpd2.pdf.

Awareness and Current Use of Rapid HIV Tests

According to a recent survey by the Health Research and Educational Trust (HRET), although almost 90 percent of hospitals and health systems are aware of rapid, point-of-care testing, only 40 percent of hospitals and systems currently use such tests. Rapid HIV tests are used by significantly more teaching hospitals, large hospitals, nonprofit hospitals, and systems hospitals, though they are used less than standard tests. Interestingly, among hospitals that use rapid HIV tests, smaller and nonteaching hospitals use rapid tests more than large and teaching hospitals do. (See Table 2)

Most hospitals that use rapid testing administer the tests in their central lab. Very few hospitals administer the tests at the point of care, which is recommended for maximum benefit.

(continued)

T A B L E 2						
Extent of Rapid Test Use vs. Traditional Test (by significantly different characteristics)						
		RT Used More	RT Used Less	Both Used the Same	Don't Know	P-value
	n	%	%	%	%	
Total	485	20.3	62.6	11.2	3.7	
Hospital Size						
Small	71	34.4	43.7	15.1	6.1	<.01
Medium	81	27.0	50.4	16.9	2.2	
Large	333	15.9	70.0	9.0	3.6	
Size of Metropolitan Area						
Large	168	18.8	66.0	10.4	4.8	<.01
Medium	97	13.3	78.8	4.2	3.7	
Small	46	18.0	69.4	10.8	1.8	
Nonmetropolitan/Rural	174	26.7	53.7	16.4	3.1	
Teaching Status						
Teaching	119	11.7	80.4	4.8	3.1	<.01
Nonteaching	366	22.9	60.1	13.1	3.9	
n = Rapid test users (all answering) Note: Percents are weighted; counts are unweighted.						

Source: HRET, 2004.

Why Hospitals Use Rapid Tests

Hospitals identified factors that contributed to their decision to make rapid HIV tests available. Factors mentioned as “very important” in the decision to use rapid HIV tests were:

- Accuracy of rapid tests
- Use of results in assisting with diagnosis and clinical care
- Availability of care and ease of laboratory services required for rapid testing
- Ease of sample collection
- Greater acceptance of rapid tests by clinicians

Barriers to Using Rapid HIV Tests

Hospitals that reported neither using nor planning to use rapid HIV tests identified factors that prevented implementing the tests. These factors included:

- Low prevalence of HIV in the community served
- Cost
- Staff time
- Training requirements—for staff to give point-of-care results and for counselors
- Lengthy informed consent process
- Lack of information on effectiveness and evaluation

Resources Needed to Implement Rapid HIV Testing

Implementing rapid testing requires resources such as support from the laboratory and hospital administration as well as funds for staff training and the actual tests. Table 3 shows the resources that hospitals cited as “very important” for using rapid HIV tests. (See Table 3)

Next Steps

To reduce the number of individuals with undiagnosed HIV infection, the Centers for Disease Control and Prevention now recommend voluntary HIV screening for all adults and adolescents in all health care settings. Rapid HIV tests can facilitate this recommendation. To promote rapid testing in hospital settings, HRET recommends:

- Exploring how to implement rapid HIV tests so more patients can be tested and linked to care
- Conducting tests at the point of care, which will be cost-effective, save time, and promote linkages to care
- Engaging the hospital laboratory to address concerns about staff training in point-of-care testing and quality assurance

With early diagnosis of HIV, people have the opportunity to seek treatment, control the disease and its symptoms, and enjoy longer and more active lives.

To read the executive summary *Hospital HIV Testing Policies and Practices: A National Survey*, go to www.hret.org/hret/about/content/execsummary.pdf.

Brief written by Cynthia Greising, Gretchen Williams Torres, and Cynthia Wright.

This publication was made possible through a cooperative agreement between the Centers for Disease Control and Prevention and the Association for Prevention Teaching and Research, award number TS-0990; it contents are the responsibility of the authors and do not necessarily reflect the official views of the CDC or APTR.

T A B L E 3						
Very Important Resources for Implementing Rapid HIV Test (in rank order)						
		Very Important	Somewhat Important	Not Too Important	Not Very Important	Don't Know
	n	%	%	%	%	%
Support of laboratory	883	74.5	18.5	3.0	2.0	1.7
Staff training and expertise	889	73.6	17.1	4.7	2.4	2.2
Adequate numbers of staff to administer test	895	66.3	21.6	7.1	2.8	2.2
Quality assurance/ quality improvement processes are not too burdensome	883	66.0	24.7	4.5	2.7	2.0
Support of clinical staff	880	64.8	25.1	4.8	2.8	2.4
Having appropriate linkages in place for follow-up care	880	63.5	22.6	6.7	3.4	3.7
Support of hospital administration	878	63.3	24.5	5.7	3.5	3.0
How the test will be paid for	881	60.7	25.0	8.0	4.3	2.1
Having a streamlined counseling approach	884	60.1	25.1	7.4	3.1	4.3
Adequate locations to conduct tests, give results, etc.	886	58.9	23.8	10.7	4.3	2.3
Patient awareness and acceptance of the test	880	48.9	31.4	13.2	4.2	2.3
n = Total sample (all answering) Note: Percents are weighted; counts are unweighted.						

Source: HRET, 2004.