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**Recommendations for HIV Testing
Services for Inpatients and
Outpatients in Acute-Care Hospital
Settings**

and

**Technical Guidance
on HIV Counseling**

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
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Recommendations for HIV Testing Services for Inpatients and Outpatients in Acute-Care Hospital Settings

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Recommendations for HIV Testing Services for Inpatients and Outpatients in Acute-Care Hospital Settings

Summary

These recommendations update previous recommendations regarding human immunodeficiency virus (HIV) counseling and testing of patients in acute-care hospital settings (1). The revision was prompted by additional information regarding both the rates at which patients admitted to some acute-care hospitals have unrecognized HIV infection and the potential medical and public health benefits of recognizing HIV infection in persons who have not developed acquired immunodeficiency syndrome.

BACKGROUND

Since previous CDC recommendations regarding human immunodeficiency virus (HIV) counseling and testing of patients in acute-care hospitals were published in 1987, studies have described HIV seroprevalence rates ranging from 0.3% to 6.0% among various patient populations (2–7). In anonymous unlinked serologic surveys conducted by CDC, 0.2%–8.9% of persons receiving care in emergency departments and 0.1%–7.8% of persons admitted to acute-care hospitals were HIV antibody positive (8–10). In two studies in which data were obtained regarding previous HIV testing or diagnosis, 63% and 65% of the HIV seropositive patients were unaware of their HIV infection before hospital admission (2,5).

In the period 1989–1990, CDC conducted anonymous unlinked serologic surveys to evaluate 13 hospital-specific variables as surrogate markers for hospital-specific HIV seroprevalence (11). The diagnosis rate for acquired immunodeficiency syndrome (AIDS) ($[\text{annual number of individual AIDS patients diagnosed and reported to the health department}/\text{annual number of discharges}] \times 1,000$) was the only hospital-specific characteristic associated with hospital-specific seroprevalence.

Based on the 1989–1990 surveys, an estimated 225,000 HIV-infected patients were cared for in the 5,558 acute-care U.S. hospitals in 1990; 163,000 of these HIV-infected patients were estimated to have a primary diagnosis other than HIV/AIDS. Of these 163,000 patients, 125,000 (77%) were admitted to the 593 (11%) hospitals with an AIDS diagnosis rate of ≥ 1.0 per 1,000 discharges; 110,000 (88%) of the 125,000 patients were ages 15–54 years (Table 1). Thus, HIV testing of patients in this age range at these hospitals would potentially identify 68% of infected persons hospitalized in the United States for conditions other than HIV/AIDS.

Knowledge of their HIV infection status allows infected persons and their infected partners to seek treatment with antiretroviral agents, prophylaxis against *Pneumocystis carinii* pneumonia, tuberculosis skin testing and tuberculosis prophylaxis (if appropriate), and other types of therapy and vaccines that may delay or prevent the opportunistic infections associated with HIV infection (12–15). Such measures have been shown to delay the onset of AIDS in infected persons and to prolong the lives of persons with AIDS (16,17). In addition, counseling and testing may help some per-

TABLE 1. Estimated efficiency of human immunodeficiency virus (HIV) testing in acute-care hospitals — United States, 1990*

1990 AIDS diagnosis rate [†]	Number of hospitals	Testing of patients of all ages				Testing of patients ages 15-54 years			
		Number of U.S. hospital patients tested [§]	% of acute-care U.S. hospital patients [¶]	Number of HIV+ patients detected ^{**}	% of all HIV+ acute-care U.S. hospital patients ^{††}	Number of U.S. hospital patients tested [§]	% of acute-care U.S. hospital patients [¶]	Number of HIV+ patients detected ^{**}	% of all HIV+ acute-care U.S. hospital patients ^{††}
≥9.0	25	184,000	0.7	22,000	13.5	99,000	0.4	19,000	11.7
≥5.0	77	815,000	3.3	54,000	33.1	442,000	1.8	47,000	28.8
≥3.0	155	1,661,000	6.6	77,000	47.2	905,000	3.5	68,000	41.7
≥2.0	265	2,751,000	11.0	97,000	59.5	1,503,000	6.0	85,000	52.1
≥1.5	374	3,591,000	14.4	108,000	66.3	1,964,000	7.9	95,000	58.3
≥1.0	593	5,471,000	21.9	125,000	76.7	2,998,000	12.0	110,000	67.5
≥0.5	1,078	9,353,000	37.4	146,000	89.6	5,134,000	20.5	128,000	78.5
≥0.0	5,558	24,946,000	99.8	163,000	100	13,721,000	54.9	143,000 ^{§§}	87.7

* Reprinted by permission of *New England Journal of Medicine* (327:449,1992).

[†] Acquired immunodeficiency syndrome (AIDS) diagnosis rate = ([annual number of individual AIDS patients diagnosed and reported to the health department/annual number of discharges] x 1,000).

[§] Excludes estimated number of patients with HIV/AIDS.

[¶] Percentage of all patients, including patients with HIV/AIDS, in acute-care U.S. hospitals (N=25,000,000).

^{**} Number of HIV+ patients who were admitted for conditions other than HIV/AIDS to hospitals with an AIDS diagnosis rate greater than the given value.

^{††} Percentage of all HIV+ patients who were admitted to acute-care U.S. hospitals for conditions other than HIV/AIDS (N=163,000; 95% confidence interval = 130,000 - 196,000).

^{§§} 95% Confidence interval = 116,000 - 169,000.

sons change high-risk sexual and drug-use behaviors and thereby prevent HIV transmission to others (18–22).

HIV counseling and testing programs are not a substitute for universal precautions or other infection-control techniques (23). Limited information does not support the belief that knowledge of a patient's HIV status decreases the risk of infection for health-care workers through closer adherence to universal precautions (24,25). HIV testing also must not be relied upon as a means of infection control in the hospital because a) test results may not be available in emergency settings, b) HIV tests will not detect a newly infected person who has not yet seroconverted, and c) other blood-borne pathogens (e.g., hepatitis B) may be present.

RECOMMENDATIONS

Voluntary and confidential HIV counseling and testing of patients in acute-care hospitals are useful for a) assisting in differential diagnosis of medical conditions, b) initiating early medical management of HIV infection, and c) informing infected persons or persons at risk for infection about behaviors that can prevent HIV transmission.

To promote the appropriate use of HIV counseling and testing services, CDC recommends that acute-care facilities adopt the following guidelines*:

- Hospitals and associated clinics should encourage health-care providers to routinely ask patients about their risks for HIV infection and offer HIV counseling and voluntary testing services to patients at risk (1). Patients should give informed consent for testing in accordance with local laws.
- Hospitals and associated clinics should develop policies regarding provision of routine HIV counseling and voluntary testing services. Other health-care institutions such as drug treatment centers, mental health facilities, and private medical practitioners are also encouraged to consider offering these services. The decision to offer these services routinely may be based on the HIV seroprevalence in the patient population. This rate may be determined most directly by a representative sample of unlinked anonymous specimens.[†] Alternatively, hospitals

* These guidelines are based in part on comments received by CDC at a meeting of consultants in Atlanta, Georgia, April 5–6, 1990. The consultants represented the American College of Emergency Physicians, American College of Obstetrics and Gynecology, American College of Orthopedic Surgery, American Hospital Association, American Medical Association, American Physicians for Human Rights, Association of State and Territorial Health Officers, Association of State and Territorial Public Health Laboratory Directors, Council of State and Territorial Epidemiologists, National Association of County Health Officers, National Association of Public Hospitals, National Institutes of Health, National Medical Association, Occupational Safety and Health Administration, and other technical experts. These Public Health Service recommendations may not reflect the views of all individual consultants or the organizations they represented.

[†] To determine directly the rate of infection for a patient population, hospitals may consider conducting anonymous unlinked serologic surveys (i.e., testing of serum or plasma samples that were collected for other purposes and have had personal identifiers removed before testing). For guidelines regarding the conduct of blinded HIV serosurveys in hospitals, contact: Seroepidemiology Branch, Division of HIV/AIDS, Mailstop E-46, Centers for Disease Control and Prevention (CDC), Atlanta, Georgia, 30333.

and other health-care providers may elect to use an indirect marker of HIV seroprevalence, such as the AIDS diagnosis rate (defined above).

- Hospitals with an HIV seroprevalence rate of at least 1% or an AIDS diagnosis rate ≥ 1.0 per 1,000 discharges should strongly consider adopting a policy of offering HIV counseling and testing routinely to patients ages 15–54 years.
- HIV counseling and testing procedures in the acute-care setting should be structured to facilitate confidential, voluntary patient participation and should include a) pretest information on the testing policies of the institution or physician and b) basic information about the medical implications of the test, the patient's option to receive more information, and the documentation of informed consent.
- HIV counseling and testing should be offered in nonemergency settings in which patients are able to make an informed and voluntary decision regarding HIV testing. HIV counseling and testing for purposes other than immediate medical care should be deferred until a later time for persons who are too severely ill to understand the pretest information or give informed consent.
- Test results should be provided to the patient in a confidential manner and forwarded to state health departments in accordance with local law. Post-test counseling for infected patients and those at increased risk should be performed by trained health-care providers in accordance with existing CDC recommendations (7).
- Persons who decline HIV testing or who consent to testing and are HIV antibody positive must not be denied needed medical care or provided suboptimal care. HIV-infected persons should receive medical evaluation for HIV infection and specific therapies and prevention services as needed. If therapeutic and prevention services are not available, the acute-care facility or provider should establish an effective referral system to ensure that these services will be provided.
- Facilities offering HIV testing and counseling should take necessary steps to protect the confidentiality of test results. The ability of facilities to assure confidentiality of patients' test information and the public's confidence in that ability are crucial to efforts to increase the number of persons being counseled and tested for HIV infection. Moreover, to assure broad participation in counseling and testing programs, the public must be assured that persons found to be HIV positive will not be subject to discrimination (7).
- HIV testing programs must not be used as a substitute for universal precautions and other infection-control techniques.

THE ROLE OF HEALTH DEPARTMENTS

State and local health departments are a source for at least three forms of assistance for implementing these recommendations. First, state and local health departments can provide data to assist hospitals to determine their AIDS diagnosis rate. Second, state and local health departments can provide technical assistance and training for hospital staff responsible for HIV-related counseling and testing services in

acute-care settings. Third, health departments can help hospitals by providing partner notification services for HIV-infected patients, as well as additional prevention services for uninfected patients who are at high risk for HIV infection. Effective and ongoing collaboration between acute-care providers and health departments will improve both prevention and treatment services for persons infected with HIV or at risk for HIV infection.

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Technical Guidance on HIV Counseling

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Technical Guidance on HIV Counseling

Summary

Human immunodeficiency virus counseling and testing services (HIV-CTS) have been recommended by CDC since 1985, when serologic tests became available to detect antibodies to HIV (1,2). In August 1987, CDC published the Public Health Service Guidelines for Counseling and Antibody Testing to Prevent HIV Infection and AIDS (3). These guidelines remain in effect today.

In December 1991, CDC convened a meeting of expert consultants to address the need for additional technical guidance on the subject of HIV counseling. As a result of that meeting, this document was developed to supplement the existing guidelines and distributed to state and local health departments in February 1992. This document updates the original guidelines to address: relevance of prevention messages; opportunities to provide and reinforce HIV-prevention messages; messages tailored to behaviors, circumstances, and special needs of clients; development of individualized, negotiated HIV risk-reduction plans; barriers to return for post-test counseling; and appropriate, ongoing counselor training.

INTRODUCTION

In 1991, more than 2 million serologic tests to detect antibodies for human immunodeficiency virus (HIV) were performed at publicly funded HIV counseling and testing sites (4). In addition to the provision of HIV counseling and testing services (HIV-CTS) at publicly funded sites, many private providers, including physicians, offer HIV-CTS (5).

CDC identifies the following as major functions of HIV-CTS: a) provide a convenient opportunity for persons to learn their current HIV serostatus; b) allow such persons to receive prevention counseling to help initiate behavior change to avoid infection, or, if already infected, to prevent transmission to others; c) help persons obtain referrals to receive additional prevention, medical-care, and other needed services; d) provide prevention services and referrals for sex and needle-sharing partners of HIV-infected persons (6).

To achieve the functions stated above and to address the specific HIV-prevention needs of each client, HIV counseling must do more than provide factual information in a didactic manner. This form of counseling — as the following recommendations define — should be “client-centered” and based on consultation with expert HIV counselors, program managers, and other specialists.

RECOMMENDATIONS

HIV Prevention Messages

Counselors in programs that offer HIV-CTS should take advantage of all available opportunities to provide clients with HIV-prevention messages.

Clients manifest varying degrees of acceptance of HIV CTS. Some clients are highly motivated to learn their HIV serostatus, while others may be wary or suspicious of suggestions that they learn their HIV serostatus. Still others may not perceive themselves to be at risk for HIV infection and consider the test unnecessary. Changing high-risk behavior is not an "all-or-nothing" process. Even after availing themselves of HIV-CTS, seronegative clients may continue to engage in behaviors that place them at risk for HIV infection.

Therefore, counselors should view all clinical encounters with clients as potential opportunities to provide and reinforce HIV-prevention messages. These messages should be clear and straight forward (e.g., "If you are not infected with HIV, you should take steps to make sure you stay that way, and, if you are already infected, early treatment can preserve your health by delaying the onset of illness.")

Client-Centered Counseling

HIV counseling must be "client-centered."

To fulfill its public health functions, HIV counseling must be client-centered; i.e., tailored to the behaviors, circumstances, and special needs of the person being served. Risk-reduction messages must be personalized and realistic. Counseling should be:

- Culturally competent (i.e., program services provided in a style and format sensitive to cultural norms, values, and traditions that are endorsed by cultural leaders and accepted by the target population);
- Sensitive to issues of sexual identity;
- Developmentally appropriate (i.e., information and services provided at a level of comprehension that is consistent with the age and the learning skills of the person being served);
- Linguistically specific (i.e., information is presented in dialect and terminology consistent with the client's language and style of communication).

HIV counseling is not a lecture. An important aspect of HIV counseling is the counselor's ability to *listen* to the client in order to provide assistance and to determine specific prevention needs.

Although HIV counseling should adhere to minimal standards in terms of providing basic information, it should not become so routine that it is inflexible or unresponsive to particular client needs. Counselors should avoid providing information that is irrelevant to their clients and should avoid structuring counseling sessions on the basis of a data-collection instrument or form.

Client-Risk Assessment

HIV pretest counseling must include a personalized client-risk assessment.

A focused and tailored risk assessment is the foundation of HIV pretest counseling. Risk assessment is a process whereby the counselor helps the client to assess and take "ownership" of his/her risk for HIV infection. Client acceptance of risk is a critical component of this assessment. Risk assessment is not a counselor's passive appraisal of the client's behavior, such as checking off risks from a written list, but an interactive

process between counselor and client. Risk assessment should be conducted in an empathic manner with special attention given to the ongoing behaviors and circumstances (e.g., sexual history, sexually transmitted disease [STD] history, drug use) that may continue to place the client at risk for HIV infection/transmission. For example, clients who are being counseled in STD clinics, where they have come for the treatment of a symptomatic STD (other than HIV), should be advised that their current infection demonstrates that they are at increased risk for HIV.

Because the risk-assessment process serves as the basis for assisting the client in formulating a plan to reduce risk, it is an essential component of all pretest counseling.

HIV Risk-Reduction Plan

HIV counseling should result in a personalized plan for the client to reduce the risk of HIV infection/transmission.

HIV counseling is more than providing routine information. Such counseling should also include the development of a personalized, negotiated HIV risk-reduction plan. This plan should be based on the client's skills, needs, and circumstances, and it must be consistent with the client's expressed or implied intentions to change behaviors. HIV counseling should not consist of the counselor "telling" the client what he/she needs to do to prevent HIV infection/transmission, but instead should outline a variety of specific options available to the client for reducing his/her own risk of HIV infection/transmission. The counselor should confirm with the client that the risk-reduction plan is realistic and feasible — otherwise, it is likely to fail.

When negotiating a personalized risk-reduction plan, counselors should be especially attentive to information provided by the client — especially information about past attempts at preventive behaviors that were unsuccessful (e.g., intentions to use condoms but failure to do so) and those which were successful. Identifying and discussing previous prevention failures help to ensure that the risk-reduction plan is realistic, attentive to the clients' prevention needs, and focused on actual barriers to safer behaviors. Identifying previous prevention successes (e.g., successful negotiation of condom use with a new sexual partner) offers the counselor the opportunity to reinforce and support positive prevention choices.

An interactive risk assessment and a personalized risk-reduction plan developed during pretest counseling ensure that clients receive adequate prevention information, even before they learn the results of their tests. Counselors can use the client's expectation of test results to facilitate the development of a personalized risk-reduction plan (e.g., "What do you expect your test results to be? Why? What will you do if you are HIV seropositive? Is there anything different you will do if you are HIV seronegative?").

Post-test Counseling

Programs should take active steps to address the problem of failure to return for post-test counseling.

Not all clients who receive pretest HIV counseling and testing return for post-test counseling and test results. In 1991, 31 state and local health departments recorded HIV counseling and testing data in such a way that analysis of individual post-test

counseling return rates was possible. These project areas reported an average 63% return rate for post-test counseling. However, this rate ranged from 41% to 86% and varied by age, sex, race/ethnicity, self-reported risk behavior, service-delivery site, and HIV serostatus. Analyses indicate that adolescents, blacks*, and clients served in family-planning clinics and STD clinics, have lower return rates for HIV post-test counseling (7).

HIV-CTS programs should be active in addressing the problem of failure to return for HIV post-test counseling. Program managers should determine if specific operational barriers exist that prevent clients from returning for HIV post-test counseling (e.g., excessive waiting time). Counselors should stress the importance of receiving post-test counseling and should identify it as a specific component of the personalized risk-reduction plan. HIV-CTS programs should give priority to contacting seropositive and high-risk seronegative clients who have not returned to learn their test results and have failed to receive post-test counseling.

As part of a comprehensive quality-assurance program, publicly funded counseling and testing programs must monitor: a) blinded seroprevalence rates to assess the extent of client access and acceptance of recommended counseling, testing, referral, and partner-notification services (CTRPN); and b) the rates at which clients return to receive HIV-antibody test results and post-test counseling.

When <50% of high-risk clients are receiving counseling and testing, or when low return rates (e.g., <80% for seropositives and <60% for high-risk seronegatives) are identified, documented "action steps" must be initiated to determine the reasons for such low rates and to resolve barriers to clients in accessing services, learning their test results, and obtaining counseling and referral services (6).

Counselors should routinely assess whether clients require additional post-test counseling sessions.

Many HIV counselors have reported that some clients may require more than a single post-test counseling session. Seropositive clients are often disturbed by the realization that they have a life-threatening disease and often require additional counseling and support. Seronegative clients who are at increased risk for HIV infection or transmission may also require additional counseling to develop the skills needed to practice safer behaviors.

Although CDC does not require its funded programs to routinely provide repeated post-test counseling sessions, counselors and program managers should be aware that certain clients may require additional support and further counseling opportunities. If deemed appropriate, additional counseling should be provided on-site or through referral. In considering options for additional post-test counseling, program managers should work with local community-based organizations that might offer such services.

Programs should ensure that HIV CTS clients receive appropriate referrals.

Seronegative clients at continuing risk for HIV infection and HIV-infected clients often require additional primary and secondary HIV-prevention services that may not

* CDC's National Center for Prevention Services recognizes that a variety of terms are used and preferred by different groups to describe race and ethnicity. Racial and ethnic terms used in this document reflect the way data are collected and reported by official health agencies.

be available on-site. For example, clients, whose drug use continues to place them at risk for HIV infection should be referred for appropriate drug treatment. HIV-infected clients should be provided (on-site or through referral) with immune system monitoring and a medical evaluation to determine the need for anti-retroviral therapy and prophylaxis for *Pneumocystis pneumonia*. Facilitating referrals for these services, as well as for tuberculosis (TB) and STD care as needed, are important aspects of HIV post-test counseling.

Identifying appropriate referral sites (i.e., sites where appropriate services which meet acceptable standards of quality are offered in a timely manner) should not be the sole responsibility of the person performing HIV counseling. Program managers should take the lead in identifying referral sites and developing programmatic relations (e.g., contracts and memoranda of understanding) with those sites to facilitate needed client referrals.

Training and Counselor Feedback

Programs should provide training and counselor feedback to ensure the quality of HIV-CTS.

Counselors, as well as their supervisors, require adequate training in HIV-CTS. In addition to training on the scientific/public health aspects of HIV-CTS, training should address other relevant issues such as substance abuse, human sexuality, the process of behavior change, and the cultural perspectives of the clients being served.

Training for HIV counseling is not a one-time event — it should be an ongoing process. An important component of ongoing quality assurance and training for HIV counselors is routine, periodic observation during counseling sessions and subsequent feedback. When a trained supervisor is not available to perform this important function, routine observation should be done by trained peer counselors. Performance standards that define expectations for the content and delivery quality of counseling should be developed. (Note: observational supervision requires the consent of the client being counseled.)

CONCLUSION

Publicly funded HIV-CTS are a major component of the national HIV-prevention program (4). Further, national health promotion and disease prevention objectives for the year 2000 target increases in the proportion of HIV-infected persons who have been tested for HIV infection and the number of health-care facilities (e.g., family-planning clinics, TB clinics, drug-treatment centers, primary-care clinics) where counseling and testing is provided (8).

These recommendations, which supplement existing guidelines (3), focus on the counseling portion of the HIV counseling and testing process — a cooperative endeavor that includes giving information and assisting the client in identifying his/her HIV-prevention needs, and in developing a strategy to address those needs (9). These guidelines stress the importance of ensuring that HIV counseling is empathic, a quality known to be important in other clinical encounters (10).

By ensuring that counseling is empathic and “client-centered,” counselors will be able to develop a realistic appraisal of the client’s level of risk and assess at which

stage the client has reached in the behavior change process (11,12). Assessing the client's state of behavior change is important since intentions to reduce/modify risky behavior or initiate/ increase healthy behavior will vary among clients. The "Stages of Behavior Change" model recognizes that persons usually pass through a series of steps before achieving consistently safe behavior—whether in terms of sexual or drug-use behavior (13,14). These stages are: precontemplation (no intention to change one's behavior); contemplation (long-range intentions to change); ready for action (short-term intentions to change); action (attempts to change); maintenance (long-term consistent behavior change); and relapse (which can end the new behavior or restart the process) (11,12,14).

Assessing the client's stage of behavior change is necessary to ensure that prevention messages are individually relevant—a crucial consideration if HIV counseling is to effect behavior change. For instance, counseling messages that increase clients' intentions to reduce risky behaviors are different from those required to maintain safer behaviors and prevent relapse (15).

Cost-benefit analysis of HIV-CTRPN indicates that, even under conservative assumptions, CDC's expenditure on HIV-CTS results in a substantial net economic benefit to society (16). Program managers and staff must have realistic expectations about HIV counseling and testing programs. Although it is unlikely that a single episode of HIV counseling will result in the immediate and permanent adoption of safer behaviors (17), client-centered HIV counseling and attendant prevention services (i.e., referral and partner notification) do contribute to the initiation and maintenance of safer behaviors.

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