

**HIV Testing in an Urban Primary Care Clinic:
*Incorporating HIV Testing into Routine Health Care***

Study Question:

Are patients who complete other routine health screens more likely to have had an HIV test?

Study Implications:

The results of this study may be used to help facilitate HIV testing in the primary care setting.

Rationale/Background

In this era of highly effective antiretroviral therapy for HIV, testing for the disease has become a highly publicized and politically charged issue. Certainly, there are numerous benefits to testing for HIV, many of which have profound implications for both individuals and communities. Potential benefits include: early initiation of appropriate medical therapy for infected individuals (1, 2, 3), potential prevention of AIDS and its adherent complications (1, 4), reduction in risk-taking behavior among individuals aware of their seropositive status and thus reduction in transmission (4, 2), and conservation of costs to society as a whole (5).

Despite these substantial benefits to early and widespread HIV testing, testing rates continue to fall short of expectations. In 2003, an estimated 300,000 Americans were unaware that they were HIV positive because they had not been tested or had not learned of their test results (6). In this respect, the primary care clinic involved in this study is not unusual. The clinic is located in New York City, which remains an epicenter of HIV and one in which the number of new diagnoses increased in 2005 among men (7), yet HIV testing has not yet become a routine aspect of primary care. In a CDC survey of New Yorkers in 1997, only 43.3% reported ever having had an HIV test; in contrast, 32.3% reported having had colorectal cancer screening in the past year, 60% having ever had a mammogram, 75.9% having had lipids checked, and 54.5% having had PSA checked (23). This disparity may contribute to HIV-related stigma.

In part, structural barriers are to blame for limited HIV testing. Until recently, the CDC recommended HIV testing only for those individuals who engage in high risk activities, live in areas with <1% disease prevalence, or seek care in specific settings such as STD clinics, TB clinics, or correctional facilities (8); New York state's guidelines followed suit (9). Adopting this protocol requires providers to risk-stratify each patient and assume a high pretest probability that a patient is infected with HIV (4). Once a patient is actually screened out and referred for testing, the protocol mandates a fairly time consuming consent process along with a referral for pre-test counseling. In adopting this strategy rather than that employed for other routine screens (such as mammography, colonoscopy, etc.) there is a significant risk that seropositive patients will be missed (1, 4, 10.)

From a provider perspective, HIV testing may seem both unfeasible and impractical within a busy urban primary care clinic. For the provider to recommend testing, he or she must juggle competing medical priorities, overcome significant time constraints, handle language and/or cultural differences, and judge his or her own ability to perform an accurate risk-based assessment. Once HIV is addressed, the provider must also feel competent enough to field questions about the test, the disease, treatment options, and risk-reduction strategies. Furthermore, the provider must confront institutionalized ideas about delivering appropriate medical care.

From a patient perspective, a number of individual-level factors may present barriers to HIV testing and these have been well documented in the medical literature. On an individual level, barriers to testing include: inaccurate perception of personal risk (11, 12, 13), limited awareness of HIV in one's community (11), limited health care access (11, 6), lower degree of acculturation (6) and more significant cultural marginalization (14), fear of AIDS-related stigmas (15) or concerns about confidentiality. This suggests that those individuals who might be at the highest risk for HIV, particularly within minority communities, must surmount the greatest sociocultural barriers in order to obtain an HIV test.

In light of these obstacles, the question remains: Can we make HIV testing a routine part of health care in areas of high prevalence? Other studies have examined known predictors of a patient having had an HIV test which include: self-perceived HIV risk, prior participation in testing, engaging in HIV risk behaviors, and younger age, although no predictors were consistent across studies (2, 15.) The study proposed here aims to study another potential predictor of HIV testing— completion of other routine health screens. The completion of an HIV test, much like other routine health screens, requires multiple features of the clinical encounter to function: the patient or provider must suggest the exam, the patient must agree to the exam, the provider must make the referral, and the patient must complete what may be a physically or emotionally uncomfortable procedure.

Methods

Study Setting:

This study will be conducted in the Associates in Internal Medicine (AIM) Primary Care Clinic at the Columbia University Medical Center of Columbia-Presbyterian Hospital in New York. This clinic serves primarily Medicaid and Medicare patients in the Washington Heights community. Medical care is provided by residents in the Internal Medicine residency program and by medical attendings with special training in primary care.

Study Subjects:

Subjects will be eligible for inclusion in the study if they are between the ages of 55 and 70 and are established patients in the AIM primary care clinic, meaning they have had at least 2 prior clinic visits with a single provider in the past year. The rationale for including only patients in this age group is that it is within this range that the majority of routine screening tests are recommended according to national guidelines. By narrowing the age range of eligible subjects, we are also able to eliminate the likelihood that a

patient has been recently pregnant and thus may have undergone an HIV test as part of prenatal screening. By studying only established patients, one increases the likelihood that, with increased patient-provider familiarity, comfort, and time spent in preventive counseling, an HIV test may have been recommended.

Subjects will be excluded from the study if they have been seen in the AIM clinic only once or if they have known and documented characteristics that should have triggered an HIV test (including history of intravenous drug use, sexually transmitted diseases, hepatitis B or C, tuberculosis, recent incarceration, or are known to have exchanged sex for drugs or money.) By excluding these patients, we exclude those with a relatively high pretest probability of being HIV positive and thus are able to more closely examine those who may have received an HIV test as part of routine screening.

Study Procedures:

Patient charts will be randomly selected for analysis by medical record number. Once inclusion criteria are met, charts and associated administrative and WEBCIS data will be reviewed for the following information:

- 1) Basic patient demographic information including age, sex, primary language if available, and highest level of education attained if available;
- 2) Basic provider information including position (attending vs. resident);
- 3) Degree of complexity of the medical case as assessed by the number of standing medications and number of active problems listed on the most recent clinical encounter, with >5 standing medications or >5 items on active problem list considered highly complex;
- 4) Completion in the last five years of an HIV test (regardless of results);
- 5) Completion in the last five years of routine screening tests: screening colonoscopy/sigmoidoscopy/FOBT, mammogram (if female), PSA (if male), or lipid testing (regardless of results.)

Study Design and Statistical Analysis:

This study employs a cross-sectional design to look for associations between completion of an HIV test and completion of other routine screening tests. The central hypothesis is that patients who complete other routine screening tests are more likely to complete a routine HIV test. The analysis will be stratified to examine highly complex patients apart from those with fewer medical comorbidities (see #3 in study procedures.) Using a chi-squared test for power analysis and testing at p of 0.05 for 80% power, at least 48 subjects in each group are needed (thus 96 subjects in the low comorbidity group and 96 subjects in the high comorbidity group.) Data will be analyzed using a chi-squared test, comparing patients who have completed more than 1 routine screening test and have had an HIV test with those who have completed more than 1 routine screening test and have not had an HIV test.

Confidentiality Assurances:

Each data set collected (from written medical records, WEBCIS, and administrative records) will be assigned a unique study code so that the information will be kept completely anonymous. Data will be stored on a password protected computer and thus

kept confidential. Since information about specific test results will not be obtained, informed consent from participants will not be sought.

Potential Risks and Benefits:

This study does not pose any physical or emotional risks to participants. Participants will not receive any material benefit from being in the study, although the data collected in this study may be used to improved clinical services at a local level and may thus benefit all patients.

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