Implementing Routine HIV Testing in the Emergency Department of an Urban University Hospital

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Abstract

Objective: In 2006, the CDC called for an increase in HIV screening in all health care settings, including emergency departments (EDs). In response to these recommendations, a universal HIV testing program was launched in the ED of Hahnemann University Hospital, a busy, urban hospital in Philadelphia, PA. Using a counselor-driven testing model, the program's objectives were to identify new HIV cases and link the newly diagnosed individuals into care.

Methods: The program began with certified HIV counselors offering point-of-care rapid HIV testing in exam rooms to all eligible patients regardless of risk factors for 10 hours daily Monday-Friday. In response to client demand, the program was expanded to offer testing to partners, friends, and family members of ED patients. HIV counselors collected demographic information, obtained consent, performed counseling and testing, and provided results. Screening was done via oral swab using the OraQuick ADVANCE® Rapid HIV-1/2 Antibody Test. Patients with preliminary positive results were immediately offered confirmatory testing in the ED and actively referred for care at an affiliated HIV outpatient clinic.

Results: From May 2007 through July 2008, 1,816 individuals were offered rapid HIV screening, and 82.5% accepted testing, including 73 non-ED patients. Among those who accepted, the mean age was 35.6, 50.6% were female, and 79.8% were black. At least 25% of these patients reported this as their first HIV test. Eighteen patients tested preliminarily positive for HIV. Of these, 11 were confirmed positive, 4 were confirmed as false positive, and 3 did not receive confirmatory testing. The seropositivity rate was 0.73%. Among the 11 confirmed positives, five were successfully linked to follow-up care with at least one or more clinic visits. The other six have not yet engaged in care despite repeated and ongoing attempts to contact and engage them.

Conclusions: Strengths of our program include the number of patients offered, and accepting, testing; the use of a streamlined consent and point of care testing process; and the successful delivery of results to patients. Given the rates of false-positives, the use of oral fluid with Ora-Quick Advanced Rapid HIV test needs further evaluation. Areas for improvement include involving the ED personnel in performing HIV screening and increasing the proportion of linked positives.
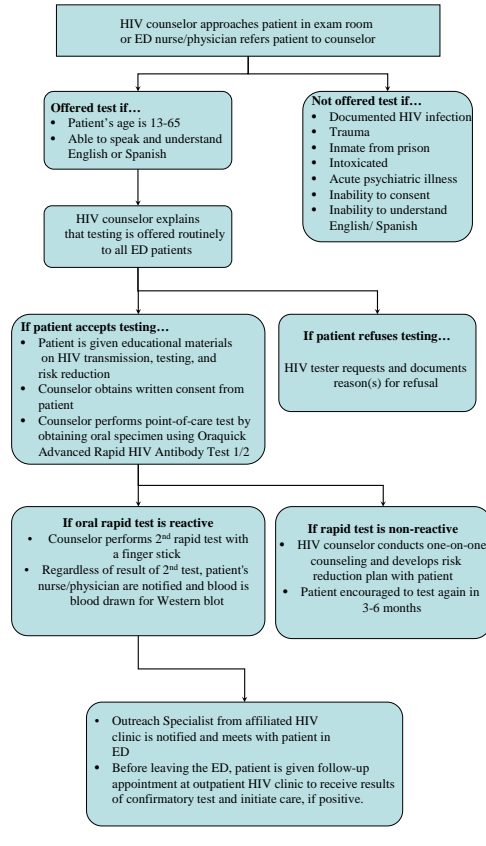
Consent

Drexel University College of Medicine
In the tradition of Women's Medical College of Pennsylvania and Hahnemann Medical College
Partnership Comprehensive Care Practice

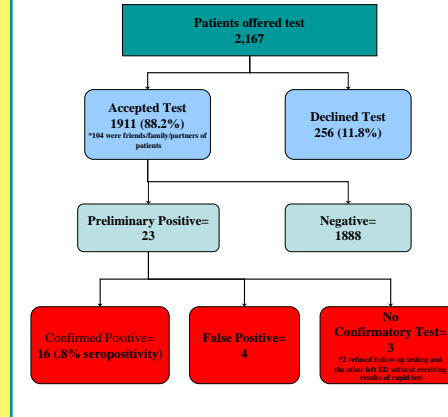**Consent to Rapid Testing for Human Immunodeficiency Virus (HIV)**

I have read and understand the materials given to me about the Rapid HIV test. I understand that the results will take approximately 20-40 minutes and I agree to wait for the results. I understand that the HIV test is voluntary and by signing below I consent to it.
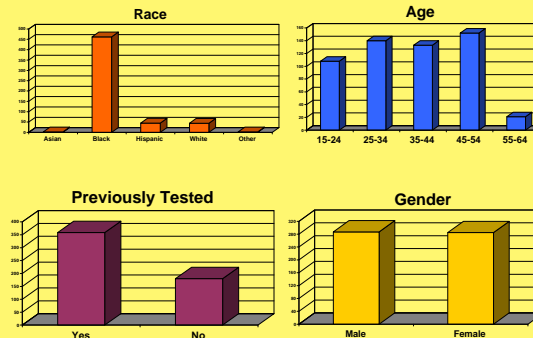
_____
Person to be tested   Date

Rapid HIV Testing and Counseling Algorithm

HIV counselor approaches patient in exam room or ED nurse/physician refers patient to counselor

Offered test if…
- Patient's age is 13-65
- Able to speak and understand English or Spanish

Not offered test if…
- Documented HIV infection
- Trauma
- Inmate from prison
- Intoxicated
- Acute psychiatric illness
- Inability to consent
- Inability to understand English/ Spanish

HIV counselor explains that testing is offered routinely to all ED patients

If patient accepts testing…
- Patient is given educational materials on HIV transmission, testing, and risk reduction
- Counselor obtains written consent from patient
- Counselor performs point-of-care test by obtaining oral specimen using Oraquick Advanced Rapid HIV Antibody Test 1/2

If patient refuses testing…
HIV tester requests and documents reason(s) for refusal

If oral rapid test is reactive
- Counselor performs 2nd rapid test with a finger stick
- Regardless of result of 2nd test, patient's nurse/physician are notified and blood is blood drawn for Western blot

If rapid test is non-reactive
- HIV counselor conducts one-on-one counseling and develops risk reduction plan with patient
- Patient encouraged to test again in 3-6 months

- Outreach Specialist from affiliated HIV clinic is notified and meets with patient in ED
- Before leaving the ED, patient is given follow-up appointment at outpatient HIV clinic to receive results of confirmatory test and initiate care, if positive.

Results from May 2007 through October 2008

Patients offered test
2,167

Accepted Test
1911 (88.2%)
*104 were friends/family/partners of patients

Declined Test
256 (11.8%)

Preliminary Positive=
23

Negative=
1888

Confirmed Positive=
16 (.8% seropositivity)

False Positive=
4

No Confirmatory Test=
3
*1 refused follow-up testing and the other left ED without receiving results of rapid test

Characteristics of Patients Accepting HIV Testing

Race

Age

Previously Tested

Gender

Characteristics of Patients with Newly Diagnosed HIV Infection

Patient	Sex	Age	Race	Risk Factor	CD4 Count	Opportunistic Infection
I	Male	21	African American	MSM	391 (32.6)	None
II	Male	33	South East Asian	Heterosexual	10 (1.9)	PCP
III	Male	25	African American	MSM	251 (7.6)	None
IV	Male	29	African American	MSM	454 (34.9)	None
V	Female	31	African American	Heterosexual	73 (8.1)	None
VI	Male	34	African American	MSM	54 (9)	PCP
VII	Female	45	African American	Heterosexual	266 (26.6)	None

Conclusions

Program Strengths:
- High acceptance rate and large of number of tests conducted
- Use of streamlined consent and point of care testing process
- Nearly 100% of patients received test results for leaving the ED

Program Challenges:
- Concern with increasing rates of false-positive results with oral fluid specimen
- Involving ED staff in HIV screening process to promote sustainability
- Improving linkage to care for positives

Acknowledgements