Rapid HIV Screening in the Inner City Emergency Department

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HIV testing of high-risk populations is an important first step in getting HIV-positive patients connected to the counseling and treatment they need in order to prevent the life threatening complications associated with HIV, and to help curb the spread of the disease (Campsmith, et al.). Nurses in the emergency department are increasingly on the front lines of the battle against HIV in the United States. This is because the emergency department is often the primary source of healthcare for increasing numbers of Americans, particularly for those considered to be at the highest risk for contracting HIV. This is a reflection of the changing demographics of the ongoing HIV epidemic in the United States. This population now includes a rapidly growing number of HIV-positive minorities of color: African American and Hispanic women and men (Branson, et al.). The healthcare community could begin to address the racial disparities associated with HIV/AIDS by fully implementing the 2006 Centers for Disease Control (CDC) guidelines for HIV testing in emergency departments, but this is not yet happening. This paper will examine the role nurses in the emergency department have to play in reversing this state of affairs.

The growth pattern of HIV has changed worldwide, with the disease initially affecting cosmopolitan populations with easy access to education and the likelihood for political and community organization, but more recently the disease affects populations with fewer economic and political opportunities (Glick, et al.). HIV has become yet another strain on communities already dealing with challenging issues, such as broad economic disparities, drugs, crime, political apathy, and the disintegration of family.

Many residents of impoverished inner city communities often rely on the local emergency department as their only source of healthcare. This is often due to limited resources available to patients for transportation, high numbers of the uninsured or underinsured, as well as living in healthcare deserts (Glick, et al.) This fact is frequently coupled with populations at high risk of contracting HIV. Multiple studies have suggested that HIV infection rates can be as high as 10% in some emergency department (ED) populations (Branson and Glick, et al.) Often the ED is the only opportunity these individuals might have to be screened for HIV infection and be directed to treatment and counseling resources (Glick, et al.)

Registered nurses have always played a role in promoting public health in the United States. With economic and professional forces pressuring physicians to spend less time assessing and educating patients, nurses have had to step into the void to ensure patients receive the level of care they need. Nurses are becoming the one healthcare professional that patients view as their main contact with a healthcare system. As such, nurses are uniquely placed to advocate for their patients and effect policy changes to address public health concerns.

The CDC's 2006 guidelines recommend opt-out HIV testing for all patients entering the ED (Hardwicke, et al.) Implementation of these guidelines was surveyed in 2008, in emergency departments that serve populations with high HIV seropositive rates. The HIV barriers to screening questionnaire was sent to participants randomly selected from ED's in metropolitan areas known for the prevalence of HIV/AIDS. This sample included registered nurses, nurse practitioners, physician assistants, and physicians. From the 732 eligible participants, 349 completed the surveys.

The results were clear; only 3% of surveyed healthcare providers reported that their institutions were offering HIV testing as part of routine medical care, as recommended by the CDC (Hardwick, et al.) Results for the testing of high-risk populations was only slightly better; only 7% of pregnant women, 29% of at-risk patients, and 53% of symptomatic patients were being offered testing. These rates of testing held true regardless of geographical location or most demographic considerations. The survey showed that healthcare providers are generally unaware of the HIV infection rates in their patient population. They were also not aware as to whether their institution had received CDC notification of these rates. Additionally, healthcare providers in these settings are not regularly offering HIV tests on a routine basis, or even to groups the CDC identifies as high-risk.

In 2006, the CDC revised their recommendations for HIV testing in various healthcare settings (Branson, et al.) The previous guidelines, released in 2001, emphasized the importance of prenatal HIV screening becoming part of the routine medical care for pregnant women, including simplification of the testing process, and increasing the flexibility of the consent process so pre-test counseling would not become a barrier to testing (Branson, et al.) The CDC also increased the number of venues it recommended for HIV testing and recommended testing for all high-risk patients. As a result, rates of mother-to-fetus transmission in the United States have dropped considerably (Branson, et al.)

The CDC recognized the additional time and resources expended in screening high-risk patients and the strain this represents to already busy ED staff as a barrier to getting HIV-positive individuals tested. Several studies have confirmed that when opt-out testing is offered to ED patients as part of routine medical screening, some EDs were finding positive rates as high as 7% (Branson, et al.). This, combined with survey data indicating ED patients' willingness to consent to screening, and decreasing costs of rapid HIV testing, has made ED opt-out screening the clear standard for emergency departments across the country (Haukoos, et al.).

Considering the healthcare costs associated with uncontrolled HIV/AIDS infections, there are little to no downsides in offering HIV testing to all patients being treated in the emergency department (Branson, et al.) The problems that now need to be addressed are the organizational, educational, and the logistical barriers to implementing the new guidelines in the challenging environment of inner city hospitals. The culmination of the evidence surrounding HIV testing in the ED clearly confirms that emergency departments need to implement the recommendations of the CDC.

In light of these gains, as well as the fact that HIV testing is virtually non-existent in emergency departments, the CDC recommended a shift from opt-in screening of only high-risk patients to opt-out screening of all ED patients (Branson, et al.) This shift is part of an attempt to make routine HIV screening a part of all health checkups. These earliest-diagnosed patients would benefit from the Highly Active Anti-Retroviral Therapy (HAART) now available, which has been extending the lives of HIV-positive patients, such that HIV is no longer the death sentence it once was (Branson, et al.) Finally, screening rates are considerably higher in opt-out programs for HIV testing of pregnant women and at STD clinics that routinely test everyone regardless of the risks and do not require pre-test counseling or express written consent from a third party.

The Department of Emergency Medicine of the Denver Health Medical Center reports the results of its survey of patients' attitudes toward opt-out testing in an urban emergency department (Haukoos, et al.) A sample of convenience was given the option to participate in The Denver Health Medical Center Emergency Department's cross-sectional survey of all adult patients Results for this survey indicated high rates of potential consent (81%) from ED patients, regardless of whether testing was offered on an opt-in or opt-out basis (Haukoos, et al.) This rate was increased to 93% if a physician recommended the

HIV test. This increase reflects a known positive effect that physician recommendation has in other settings. Fifty percent of participants stated that they would like to have their HIV consent separate from their general medical consent. Inquiries regarding pre-test counseling and post-test counseling after a negative result both received near identical numbers: regarding pre-test, 34% for vs. 66% against; regarding post-test, 35% for vs. 65% against. This survey points to the overall popularity of the idea of rapid HIV testing in the ED, yet it also raised questions about the consent process, and what might be the best method to obtain the highest compliance. The researchers expressed concern that going to a strict opt-out testing regimen might create its own barriers.

A 2004 study was performed by the emergency department at Mount Sinai Hospital in Chicago, following their implementation of targeted HIV screening in the ED (Glick, et al.) This program focused on high-risk patients as well as yet-undiagnosed, symptomatic patients. This method of opt-in testing followed the CDC's 2001 guidelines for emergency department HIV testing. The testing program was largely carried out by specifically trained health educators who performed pre-test screening, obtained consents, and performed pre- and post-test counseling. Registered nurses and physicians were also encouraged to offer HIV testing to patients. Patients who tested positive were then given follow-up appointments.

During the year of this pilot program, 57% of the 897 patients screened consented to be tested (Glick, et al. 2004). This level of participation was higher than the authors had expected based on previous published studies. The study showed a seropositive rate over twice as high (3%) as projected rates for the rest of Chicago (1.2%), but return rates for follow-up counseling were lower for Mount Sinai (40%) than the city as a whole (55%). A large number of HIV-positive patients (8 out of 15) already had AIDS-related illnesses when diagnosed, and were likely predisposed to seek some level of care. The authors were concerned because, with targeted opt-in testing, they likely left some cases undiagnosed. Also, ten of the fifteen patients who had been seen in the ED in the previous year had not been offered HIV testing until the program started. The authors did feel that, given the limitations of their budget, the targeted screening performed by the health educators was a sustainable effort that would bring more HIV-positive individuals in to treatment.

Finally, in 2010, a study was published that followed Columbia University Medical Center's Emergency Department implementation of its HIV screening program (Christopoulos, et al.) Unlike Mount Sinai's study, testing was performed at bedside by staff from CUMC's counseling and testing service, with positive results confirmed with a Western blot HIV blood test drawn by a nurse. Legal considerations due to the nature of HIV testing laws unique to New York State make testing and counseling by separate staff more attractive. While ED staff were encouraged to refer patients to HIV testing, the counselors approached the majority of patients regardless of risk factors for testing. From 2006 to 2007, 69,398 ED visits were made during the hours of operation for the testing operation, of which 2,569 patients underwent rapid HIV testing which represented 3.7% of the total patient population. During a quality audit conducted in 2007, 28.7% of those patients offered testing by counselors accepted. This study confirmed to the authors the value of bedside rapid HIV testing in the emergency department. It also showed the difficulty of testing more than a small portion of patients in the ED when the patient care staff is not fully involved.

A review of the pertinent evidence begs the question, what changes need to be made in the inner city ED to implement the CDC's recommendations and what role can registered nurses play in bringing the ED into compliance? At both a policy and management level, nurses should push institutions to evaluate and acquire rapid bedside HIV testing equipment, and ensure that all nurses are familiar with said equipment. Nurses will be instrumental in shaping the continuing education of other nurses in the department and assuring that new nurses in the department are oriented to HIV testing policies. Annual competencies need to be conducted to adjust any knowledge deficits regarding HIV in the emergency department patient population and amongst ED nursing staff. Emergency department directors must be involved in forming the consent policies at each institution. Consents for rapid HIV screening should be streamlined similar to the way rapid HIV screening has been streamlined for pregnant women. The initial universal consent can be modified to include a section for HIV testing, and a form for those who decline testing, similar to the refusal of a flu shot or TB testing. It is important that these policies and procedures receive adequate review and ongoing study, so effectiveness can be measured at the institutional level and any new barriers to screening can be rapidly identified and addressed. Nurses will be involved in educating patients and each other about the benefits of bedside rapid screening in the ED. Nurses should be made aware of the estimated numbers of HIV-positive patients in their hospital's community, and should be aware of the specific risks associated with HIV infection to ensure that the at-risk population is educated of the need to be screened annually and to reduce high-risk behavior. Removing any requirements for screening prior to testing will make the nursing assessment simpler for determining to whom rapid HIV testing will be offered. Rapid bedside testing will mean that a positive result would simply require that a new order be placed on the chart, which can be added to original lab work to reduce patient wait times and prevent repeated venipuncture. Nurses can refer positive individuals to hospital resources outside of the emergency department if the patient is not to be admitted for any other malady.

The evidence at this point clearly indicates that all patients coming into the emergency department need to be offered rapid HIV screening. Nurses have a responsibility to work toward realizing this goal by way of their administrative, educational, and bedside-caregiver roles. Nurses need to do their part to change daily practice to reflect the reality of the ongoing HIV/AIDS epidemic.

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