

Disclosures. All authors: No reported disclosures.

1298. Analysis of Factors Influencing Consent for Opt-out HIV Screening Among High-Risk Groups Vulnerable to HIV in an Urban Emergency Department

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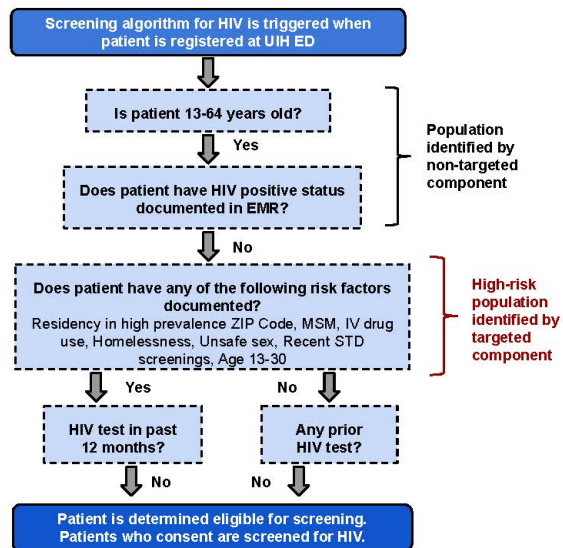
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Background. The University of Illinois Hospital Emergency Department (ED) implemented routine, electronic medical record (EMR)-driven opt-out HIV screening in November 2014. Programmatic data indicated an average consent rate of 79%, similar to other ED HIV screening programs in the country. However, there is limited evidence on the role risk factors play on consent rate. The objective of this study was to explore the relationship between patients' risk factors for HIV and the likelihood of declining screening.

Methods. The ED screening algorithm has a nontargeted and targeted component qualifying individuals based on age and presence of risk factors, respectively. We retrospectively evaluated risk factors and consent responses of high-risk individuals identified by the targeted component of the EMR algorithm between January 2017 and March 2019. We performed a multivariate logistic regression analysis in R to explore the association between risk factors and the likelihood of declining screening.

Results. Of 47,197 screening eligible individuals, 27,044 were high-risk among whom 12% never consented. The majority of those who never consented had no history of intravenous (IV) drug use, homelessness, unsafe sexual practices, recent sexually transmitted infection (STI) and did not identify as homosexual, bisexual or transgender. Individuals who identified as homosexual, bisexual, or transgender (OR = 0.53), from high-risk zip code (OR = 0.77), with history of IV drug use (OR = 0.43), and with recent STI (OR = 0.60) were found to be significantly less likely to never consent compared with their counterparts. Also, patients who were male (OR = 1.14), White (OR = 1.38), Asian (OR = 1.57), Native Hawaiian or Pacific Islander, American Indian or Alaska Native (OR = 1.44) were significantly more likely to never consent compared with their counterparts.

Conclusion. Our results show that patients at high risk for HIV consent at higher rates for HIV screening in an opt-out setting. These findings suggest that while educational efforts on the importance of testing may have been successful in patients at the highest risk, additional efforts are needed to improve awareness among those who may not self-identify or be identified by medical providers as being at risk for HIV and reinforce the importance of universal screening.



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1299. Cluster of False-Positive “Fifth-Generation” HIV Test Results During Implementation of a Routine HIV Screening Program in an Emergency Department

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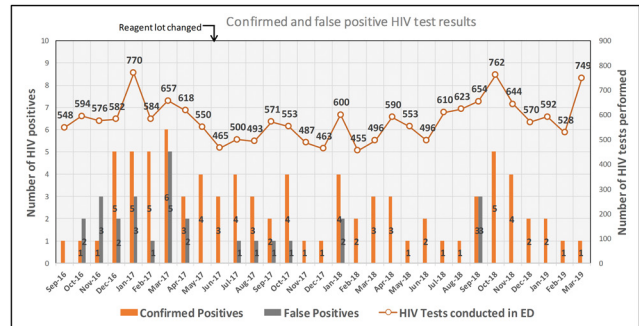
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Background. In November 2014, the University of Illinois Hospital (UI Health) introduced an electronic medical record (EMR)-driven HIV screening program in the emergency department (ED). In October 2016, our hospital laboratory introduced “Fifth-generation” HIV testing using the Bio-Rad BioPlex 2200 HIV Antigen/Antibody diagnostic assay. Fifth-generation HIV testing has the advantage of separately detecting and reporting HIV antibody and HIV-1 p24 antigen. Although the literature and manufacturer report high sensitivity and specificity of this test, we encountered higher than expected rates of false-positive tests during the introduction of this test.

Methods. We retrospectively reviewed the results of our ED HIV screening program from October 2016 to March 2019 to describe the outcomes of HIV testing, determine the rates of false-positive HIV tests and determine if false-positive rates were temporally clustered. We also investigated various potential causes of higher than expected false positives including pre-analytical and analytical error. We defined a false-positive test as a repeatedly reactive initial HIV antigen and/or HIV-1 antibody result with a subsequent negative or indeterminate HIV-1/2 antibody differentiation immunoassay and negative HIV-1 nucleic amplification test.

Results. During the review period, out of a total of 17,385 HIV tests which were performed, 85 tests were confirmed positive and 27 were false positives. This represents an HIV prevalence of 0.5%. Eighteen of the 27 false positives occurred during an 8 month period between October 2016 and April 2017 (see Figure 1). During our investigation of potential causes of the false-positive tests, we discovered that a reagent lot for the test was changed in June 2017 which resulted in a significant decrease in the false-positive rate (0.33% to 0.07%).

Conclusion. We provide data which suggests that a reagent lot may have been the cause of higher than expected false-positive tests for HIV testing. Monitoring of testing outcomes during implementation of a routine HIV testing program can help identify potential root causes of false-positive tests.



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1300. Symptom Driven Testing Is not Enough: A Retrospective Review of Patients Enrolled into HIV Care 2015–2018 at a Ryan White Patient-Centered Medical Home in Pittsburgh, Pennsylvania

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Background. While current CDC guidelines recommend screening between the ages of 13–64 at least once and annually for high-risk individuals, this is often not practiced. Early diagnosis has become key to preventing the spread of HIV. It has been suggested that a late diagnosis, one where a patient is symptomatic, implies a loss of 10.5 years in their lifespan.

Methods. From January 1, 2015 to December 31, 2018, 113 newly diagnosed HIV-infected patients enrolled in care at *The Positive Health Clinic* (PHC), a Ryan White funded clinic, located in Pittsburgh, PA.

Results. The median age was 32, 78% male, 64% MSM (Figure 1). At the time of HIV diagnosis, the median CD4 count was 325 U/L , and HIV viral load was 65,000 copies. 32 patients (28%) had a CD4 count <200 and 13 had an AIDS-defining illnesses (Figure 2). Only 50% of HIV diagnoses were based on a provider's clinical suspicions, 26% were driven by patient request, and 24% were the result of system driven screenings. 90.2% of patients had prior healthcare contact before the HIV diagnoses, suggesting missed opportunities. Of all the newly diagnosed HIV patients, 62% were symptomatic, prompting them to be tested for HIV (Figure 3). In 20% of the symptomatic cases, the patient requested to be tested for HIV, highlighting missed opportunities for clinicians to include HIV in their differential. A previous test for HIV within one