

Prevalence of HIV infection and acceptability of rapid HIV testing in patients attending emergency services

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Introduction:

Early detection of HIV infected people has several benefits from the point of view of the individual and from the point of view of public health. However, many infected individuals are unaware of their HIV-positive status and many of them remain undiagnosed until they present with an AIDS-related condition or a low CD4 cell count, when treatment is less effective and health outcomes less favorable.

Non-targeted HIV rapid tests screening in health care settings has been promoted in the U.S. (following CDC recommendations) to lower the number of undiagnosed infections and to improve early detection. The U.K. and, recently, France have adopted also this strategy. However, the guidelines of the WHO / UNAIDS (2008) recommend offering the test to populations with more likely to be infected, to increase the positive predictive value of HIV testing and cost-effectiveness.

Emergency services represent an important health care source for the population, including subgroups that might not be reached in other health care settings, while being at higher risk of undiagnosed HIV infection, so is a good setting to assess non-targeted HIV-RT screening of the general population.

Having the rapid HIV test in the Emergency Services could increase the number of tests performed by making easier their realization, increasing the acceptability to the patient, and allowing the patient to know the preliminary result although he doesn't come back for the result.

Objective:

To study the acceptability of rapid testing among patients attending emergency services and to estimate the HIV infection prevalence in that population.

Methods:

This interventional study was conducted in the Emergency Department of the Hospital of Mataró (Barcelona), from July 2010 to March 2013. Two nurses offered oral rapid HIV test to patients aged 18 to 64 years attending the ED, who were able to provide consent for HIV testing. Exclusion criteria were self-reported HIV infection and inability to provide consent. The recruitment of participants was performed by a nurse after the patient triage. The sample calculated was 3,000 patients tested.

Results:

During the study period 2140 patients were offered the test (Figure 1). Of those, 107 refused (5%) and 2033 were tested. 3 of them obtained a reactive result. One patient, who was in the window period at the moment of testing, repeated the test 3 months later in the hospital HIV service, obtaining a positive result. Taking into account also this positive result, the percentage of reactive results was 0.2%. Almost the half of people tested was men (49.2%), the median age was 37.51 (S.D. 13.8), 14.5% were immigrants and 31.6% had a previous HIV test (Table 1). 80.5% thought rapid test is more comfortable than conventional test, and 74.4% preferred rapid test with oral fluid than with finger stick. 91.7% would recommend the test to a friend, and 96.0% thought that offer HIV testing in ED is appropriate. Those who not accepted the HIV test were older and with a lower studies level than those who accepted ($p < 0.005$) (Table 2).

Conclusions:

The results obtained show that rapid HIV screening in ED is acceptable and feasible, but the benefit of non-targeted screening was only modest, with a percentage of reactive tests of 0.2%. Therefore, these results do not support the implementation of HIV screening in emergency services.

Figure 1. Algorithm of tests offered and performed.

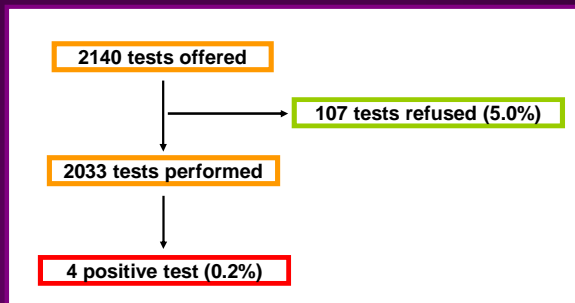


Table 1. Description of population tested.

	Total	n	%
Population description			
Median age:	37.51% (SD: 13.8)		
Gender (men)	2032	999	49.2%
Immigrant	2026	293	14.5%
Previous HIV test	2033	643	31.6%
Sexual orientation (heterosexual)	2031	1969	96.9%
Condom use in the last penetration	1875	534	28.5%
STI in the last year	2000	24	1.2%
Intravenous drug use in the last year	2029	17	0.8%
Sexual intercourse with SW in the last year	1873	21	1.1%
Sexual intercourse with IDU in the last year	1873	3	0.2%
Sexual intercourse with HIV positive in the last year	1873	4	0.2%
Opinion			
Rapid test more comfortable than conventional test	2030	1634	80.5%
Preferred rapid test with oral fluid than with fingerstick	2032	1511	74.4%
Recommend the test to a friend	2032	1863	91.7%
To offer HIV testing in ED is appropriate	2031	1341	66.0%

Table 2. Comparison of patient who accepted the test vs. Patients who don't accepted it.

	Accepten la prova		No accepten la prova		p
Edat	Mean 38,60 (S.D. 13,08)		Mean 44,41 (S.D. 13,27)		$p < 0,005$
Sexe	N= 2032	%	N= 107	%	$p=0,91$
Home	999	49,2%	52	48,6%	
Dona	1033	50,8%	55	51,4%	
Grups d'edat	N= 1947		N= 103		
<20	130	6,7%	4	3,9%	
21-35	728	37,4%	23	22,3%	
36-50	642	33,0%	35	34,0%	
>50	447	23,0%	41	39,8%	
Nivell d'estudis	N=2024		N=57		$p < 0,005$
Sense formació	89	4,4%	6	10,5%	
Primaris	677	33,4%	35	61,4%	
Secundaris	881	43,5%	13	22,8%	
Universitaris	377	18,6%	3	5,3%	
Origen	N=2026		N=102		$p=0,06$
Espanyol	1733	85,5%	94	92,2%	
No espanyol	293	14,5%	8	7,8%	