

Feasibility, acceptability and accuracy of patient self-testing for HIV using point-of-care (POC) HIV tests in an Emergency Department Setting



Charlotte A. Gaydos^{1,2} Jordan Gagnon², Yu-Hsiang Hsieh², Avanthi Burah², Mathilda Barnes¹, Patricia Agreda¹, Helen Won¹, and Richard Rothman^{1,2}

1 Johns Hopkins University Division of Infectious Diseases, Baltimore, Maryland, USA 2 Johns Hopkins University Department of Emergency Medicine, Baltimore, Maryland, USA

Updated Abstract

OBJECTIVE: To evaluate the feasibility, acceptability and accuracy of existing point-of-care (POC) HIV tests performed by an untrained patient compared to results of a standard-of-care POC HIV test performed by a trained health care professional in an urban emergency department (ED).

METHODS: From April-Nov 2008, patients who had already completed a standard-of-care HIV oral fluid test performed by a trained healthcare worker were asked to volunteer to perform a rapid POC HIV. Consented patients, who were unaware of their result, were given a choice of performing the OraQuick Advance (oral fluid) or Trinity Unigold (fingerstick blood) Patients aged 18 to 64 years without a previous HIV diagnosis were eligible. Acceptability was accessed by a questionnaire.

RESULTS: Of 173 patients approached for testing, 145 (84%) accepted, and performed a HIV test; 88% chose OraQuick and 12% chose Unigold (p<0.05). For patients preferring the oral test, the median age was 41 yr., 61% patients were female, 82% were African American and 17% were white. Within the fingerstick group, the median age was 37 yr., 39% patients were female, 83% were African American and 11% were white. Self-test results from both groups were 100% concordant with the test results obtained by the trained healthcare worker. One indeterminate Unigold test had to be repeated due to insufficient blood. Eighty-two percent of patients in the oral group and 94% of patients in the blood group reported trusting the self-administered test result very much. Results obtained by the healthcare worker were trusted very much by 87% and 78% of patients in the oral and fingerstick test group, respectively. Of participants in the oral test group 96% reported oral fluid was not at all hard to collect, while 78% stated blood was not at all hard to collect from the fingerstick. Ninety-eight percent of participants in the oral and 100% in the fingerstick test group reported they would definitely or probably recommend self-testing to a friend, whereas 98% and 94% would probably or definitely perform a test at home if one were available over the counter.

CONCLUSION: A significant proportion of patients offered POC testing in the ED preferred using oral fluid over fingerstick for POC HIV self-testing. Patients results were concordant with those obtained by trained healthcare workers. The majority of participants trusted their results and would perform a POC HIV test at home, if given the opportunity.

Objectives

•To evaluate the feasibility, acceptability and accuracy of existing point-of-care (POC) HIV tests performed by an untrained patient

•To compare to results of a standard-of-care POC HIV test performed by a trained health care professional in an urban emergency department (ED)

Results

•From 173 patients, 145 (84%) accepted, and performed a HIV test; 88% chose OraQuick and 12% chose Unigold (p<0.05)

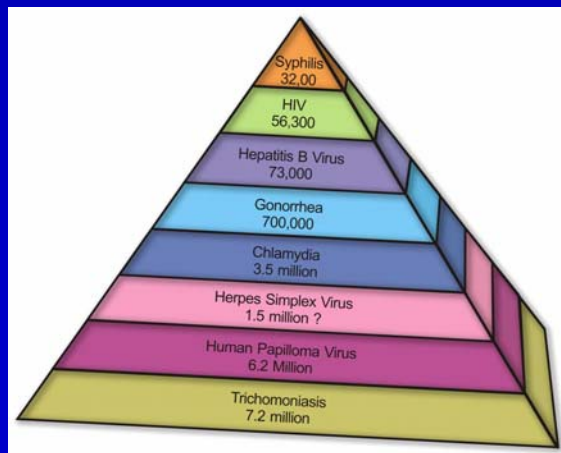
	Median Age	Female	Male	Black	White
Oral fluid (N=127)	41 yr (18-64)	61%	39%	82%	17%
Fingerstick Blood (N=18)	37 yr (22-61)	39%	61%	83%	11%

Results

	Result Definitely correct	Not at all painful to collect	Not at all unpleasant to collect	Not hard to perform correctly	Felt very much in control of health
Oral fluid (N=127)	91%	99%	97%	96%	76%
Fingerstick Blood (N=18)	89%	89%	94%	89%	83%

Latest Estimates of

Sexually Transmitted Infections in the US



Methods

•From April-Nov 2008, 173 patients from the Johns Hopkins University Emergency Department (ED) who had already received a standard-of-care HIV oral fluid test (OraQuick Advance), performed by a trained healthcare worker, were approached to volunteer for self-performing a rapid Point of Care (POC) (Rapid) HIV test

•Patients aged 18 to 64 years without a previous HIV diagnosis were eligible

•Consented patients, who were unaware of their HIV test result, were given a choice of performing the OraQuick Advance (oral fluid) or Trinity Unigold (fingerstick blood)

•Project coordinators offered the test kits to the patients after the choice of test was made. Large plasticized instruction templates were offered as visual aids

•Acceptability was accessed by a questionnaire

Results

•Self-test results were concordant with health care workers test results; one indeterminate Unigold test had to be repeated due to insufficient blood

	Trusted self result very much	Trusted HCW results very much	Not hard to collect	Definitely/probably recommend to friend	Definitely/probably perform at home if OTC
Oral fluid (N=127)	82%	87%	96%	98%	98%
Fingerstick Blood (N=18)	94%	78%	78%	100%	94%

Conclusions

•A significant proportion of patients offered POC testing in the ED preferred using oral fluid over fingerstick for POC HIV self-testing

•Patients results were concordant with those obtained by trained healthcare workers

•The majority of participants trusted their results and would perform a POC HIV test at home, if given the opportunity.