A pilot rapid test programme at HIV VCT service experience of the first 2 years

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Background

The AIDS Counselling and Testing Service (ACTS) of the Hong Kong Department of Health has been providing free, anonymous, confidential HIV testing together with screening for syphilis to clients who are at risk of HIV infection, at the government Yaumatei Clinic since 1994. Enzyme Linked Immunosorbent Assay (EIA) method as screening followed by Western Blot for confirmation of EIA positive cases has been adopted all along. The turn around time for result availability is about ten days, and is relatively longer for patients with positive results.

Triggered by the increasing number of clients who requested a faster clarification of their HIV status made possible by the advance in rapid test technology, we conducted a pilot study in 2004 to examine the feasibility and client satisfaction of applying Oraquick HIV-1/2 rapid test (the test recommended by US CDC) at the ACTS. Despite more time spent and complex arrangement at service level, the clients widely accepted and were satisfied with the rapid testing.

In view of the needs of the clients and the study finding, the ACTS set to incorporate rapid HIV test in its service provision, through embarking on a pilot programme in September 2005. Based on the experience of the 2004 study, revisit clients and Partner Counselling and Referral Services (PCRS) clients with HIV positive partners were chosen as the target people of the rapid test programme. Soon afterwards, men who have sex with men (MSM) was also included under programme due to the rising HIV epidemic.

The specific objectives of this pilot programme are:

(a) provide rapid test to targeted clients using our services
(b) allow instant learning of preliminary HIV antibody result
(c) enhance user friendliness by decreasing the number of visits for clients
(d) minimize the duration of intense anxiety posed to the client due to long result turnaround time.
(e) Allow real time delivery of custom-built counselling and support.

Methods

Eligible subjects are informed and briefly introduced of the programme when they call the AIDS Hotline for HIV testing. They will be recruited at this stage upon consent and appointment arranged. By default, blood is drawn for parallel conventional HIV antibody testing and syphilis serology besides the rapid test on site when the clients attend the voluntary counselling and testing (VCT) clinic. They will be explained of the rapid test result when available at post-test counselling. Clients are required to have a second clinic visit in case of reactive rapid test, discordant rapid and conventional test results, positive syphilis serology and blood specimen problems. Otherwise, they can have the single clinic and telephone follow-up.

Results

As at the end of 2007, 1255 clients (46.8% revisit, 61.4% MSM, 15.4% PCRS) had undergone rapid testing at ACTS. Some clients fit into more than one of the three inclusion criteria. Every year, about 85% of scheduled clients turned up for their appointments and of whom, 76-83% eventually had rapid tests done. Reasons for not doing the rapid test include late for appointment, refusal on site and no HIV test at all.

Thirty-nine clients (3.1%) had reactive results. No invalid result occurred so far (Table 1). Eighty-seven percent of the reactive cases returned for post test counselling and were referred to HIV specialist services (Table 2).

Overall, 94.6% completed VCT in a single visit (Chart 1). There was complete concordance between rapid test and conventional antibody test results (excluding indeterminate results).

Table 1: Rapid tests done and their results (2005-2007)

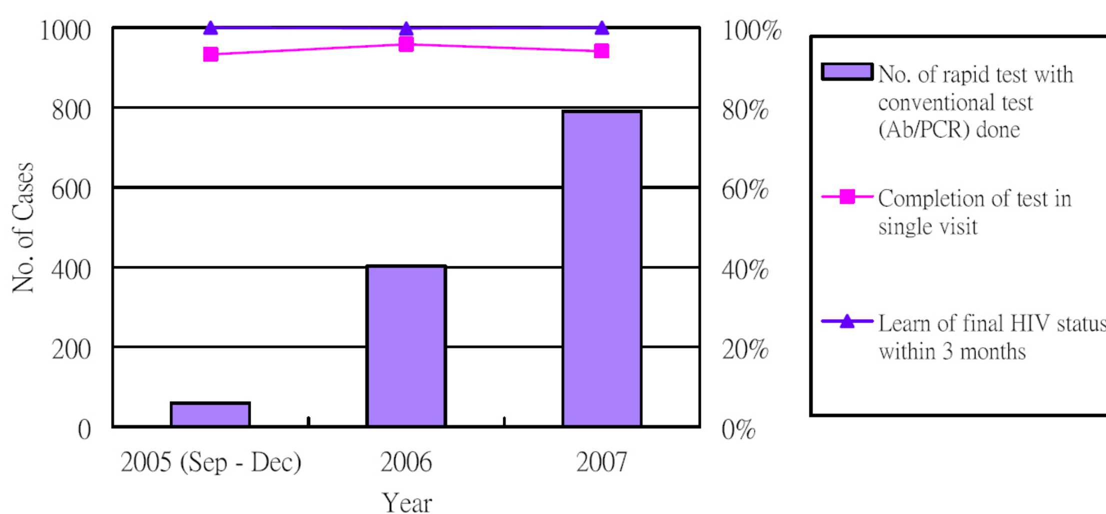
	2005 (Sep-Dec)	2006	2007	Total (Sep 2005-Dec 2007)
No. of rapid test done	60	403	792	1255
Rapid test result				
Reactive	2	10	27	39
	3.3%	2.5%	3.4%	3.1%
Non-reactive	58	393	765	1216
	96.7%	97.5%	96.6%	96.9%
Invalid	0	0	0	0
	0.0%	0.0%	0.0%	0.0%

Table 2: Followup of reactive rapid test result cases with conventional test done

	2005 (Sep-Dec)	2006	2007	Total (Sep 2005-Dec 2007)
*No. of reactive result with conventional test(Ab/PCR) done	2	10	26	38
No. of reactive result attended second post test counselling	2 100.0%	8 80.0%	23 88.5%	33 86.8%
No. of referral for HIV care	2 100.0%	8 80.0%	23 88.5%	33 86.8%

*All cases were subsequently confirmed HIV infected

Chart 1: Completion of VCT and learn of final HIV status among cases with conventional tests done



Discussion

We presented the findings of the first two plus years of implementing a pilot rapid test programme at a conventional VCT service. Revisit clients who previously had HIV test and PCRS clients were selected to be the target participants because of greater satisfaction of the former and prompt need to relieve anxiety in the latter. With the increasing evidence of MSM HIV infections, the programme was expanded to cover this community group.

A vast majority of our clients were rapid test non-reactive, and subsequently proven HIV negative by conventional test. In effect, most of the clients can complete their VCT in a single visit, with pre- and post-test counseling, rapid test and blood draw for conventional test. It appears that under such setting, the existing service is generally convenient to the clients without sacrificing the quality. Thus far, there had been no negative consequence arising from reactive rapid tests that we could not handle. Whether the same holds if there are more reactive rapid test cases remain unknown. Also, referral for HIV care upon second clinic visit of the reactive clients to read their confirmed (all positive so far) HIV results had been satisfactory. Again, if more such clients will affect the return rate and referral for care remain to be determined.

The complete concordance of rapid test result and its corresponding conventional test results are reassuring. The lack of invalid rapid result would have been contributed by the quality of test performance by our nurse counsellors. The programme has other quality assurance mechanisms like kit control to further safeguard. With cumulation of more data, we may be able to consider continue routine parallel conventional test or not. Yet, syphilis screening is a worthy test to go along with HIV test, especially for MSM for which evidence suggest increased incidence of early syphilis.

In summary, the experience thus far of this pilot rapid test programme was satisfactory. The programme largely served its objectives of enhancing and improving VCT services to selected group of clients in greater need of rapid HIV testing.