Acceptance of opt-out HIV testing in out-patient clinics in Hong Kong

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Introduction

Regular human immunodeficiency virus (HIV) testing before diagnosis is uncommon in Hong Kong, leading to late diagnosis and unknown transmission to sex partners.[1] Current HIV screening targets only those in the community at high risk of HIV infection. However, many cases (such as men who have sex with men) are missed at early stages because they may be reluctant to seek screening in a system that has multiple barriers to HIV testing: using the opt-in approach, HIV testing is a complex procedure for healthcare providers which requires separate consent and prevention counselling. For patients in the targeted high-risk communities, stigma is associated with selection for HIV screening. Currently opt-out screening is provided for pregnant women, patients with tuberculosis and sexually transmitted infections, and drug users attending methadone clinics in Hong Kong.[2] Expanding HIV testing to patients outside the high-risk communities is necessary in order to fulfil and maintain the Hong Kong Government's aim to diagnose 90% of people living with HIV.[3] In clinical settings, in-patients cannot undergo HIV screening if they are too ill, resulting in a large proportion of these patients being excluded.[4] We report our experience of piloting opt-out HIV testing in two public out-patient clinics in Hong Kong, designed to overcome this limitation.

Opt-out HIV testing in practice

We implemented opt-out HIV testing using rapid finger-prick tests in a primary care clinic (Tai Po General Outpatient Clinic, Hong Kong) and testing during routine blood-taking in a specialist out-patient clinic (the hepatology clinic at the Prince of Wales Hospital, Hong Kong) for patients with chronic hepatitis B or C or other chronic liver diseases. The pilot study was conducted from 1 June 2016 to 31 May 2017. Patients were recruited using convenience sampling.

At both study sites, the purpose of the study was explained to potential participants, who were provided with an information leaflet. A brief written questionnaire in English and Traditional Chinese was administered to collect demographic information and reasons for acceptance or refusal of the HIV test. For patients who did not opt out of HIV testing, verbal consent was obtained. For consenting patients at the primary care clinic, dried blood spot tests were used for HIV testing. Dried blood spot samples that were repeatedly reactive to the fourth-generation HIV-1/2 enzyme immunoassay screening assays (detecting antibody to HIV-1 and -2, plus HIV-1 p24 antigen) were retested with the confirmatory assay Geenius™ HIV1/2 (Bio-Rad Laboratories, Inc.; Hercules [CA], United States). For consenting patients at the specialist clinic, an additional 5-mL blood sample was taken from patients and used for HIV testing. Blood samples were tested for HIV at a research laboratory at The Chinese University of Hong Kong, Hong Kong. Patients were given a serial number and advised to call a telephone number to receive results after 1 week. For samples that tested positive for HIV, a western blot analysis was done for confirmation.

Acceptability of opt-out HIV testing and implications

In total, 2251 patients were approached during the study period; 648 at the primary care clinic and 1603 at the specialist clinic. The response rate was 83% (n=1881), with 1869 complete responses included in the final analysis. Details of the study results have been published elsewhere.[5]

When enquired about whether one agreed with a policy of HIV screening as an opt-out test in all public out-patient clinics, 87% (1617/1869) of participants agreed. In total, 1112 participants accepted the HIV test giving an uptake rate of 60% (1112/1869), which is comparable with the uptake rate reported in the literature.[6] More than half of the participants refusing testing did so owing to perceived low risk of infection. This may explain the gap between acceptability and uptake rates. Socio-demographic factors of those who accepted testing bore similarities to those with HIV infection: the vast majority of HIV-positive cases are male, with more cases in younger age-groups, and most

infected locally.[1] This suggests that expanded clinical testing may be effective in reaching the population at risk of HIV infection. No new HIV diagnoses were made; thus, we are unable to fully demonstrate that the strategy would lead to diagnoses of cases of HIV that would otherwise be missed.

Our study functioned as a pilot project which was not fully integrated in Hong Kong's healthcare system. In order for the study to be feasible, it was run in parallel to usual care to avoid placing excess burden on healthcare staff. To comply with ethical requirement in research setting, we were not able to do HIV testing in a truly opt-out manner, whereby a patient was tested unless he/she declined. Research staff had approached all patients, explained the nature of the study and obtained consent for participation. The ensuing HIV test in practice approximated that of "active choice", whereby the patient was asked whether they would like to be tested for HIV, while acceptability of opt-out testing was assessed through the questionnaires. Active choice testing has been shown to have lower uptake rates compared with truly opt-out testing.[7]

Our results may not be generalisable to all clinics in Hong Kong, because patients from different geographical areas may vary in demographics, educational background, and attitude towards HIV testing. In addition, clienteles of primary care clinics and specialist out-patient settings in public or private service differ in risk profiles. The study highlighted that expanded testing at out-patient clinics is feasible, though its effectiveness in promoting early diagnosis and the programme's cost-effectiveness are yet to be determined. Theoretically, targeted opt-out testing for high- or medium-risk individuals might be more cost-effective than routine opt-out testing in all out-patient settings.

Results in our pilot study led us to the conclusion that opt-out HIV testing in out-patient clinics in public service is acceptable to patients and could be considered as a strategy to expand HIV testing in Hong Kong. This could complement conventional HIV testing offered to people with known behavioural risk of infection, thus contributing to better control of the HIV epidemic.

Author contributions

Concept or design: All authors.
Acquisition of data: All authors.
Analysis or interpretation of data: All authors.
Drafting of the manuscript: G Tam.
Critical revision of the manuscript for important intellectual content: All authors.

Conflicts of interest

All authors have disclosed no conflicts of interest.

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Declaration

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Ethics approval

This study was approved by the Clinical Research Ethics Committee of The Chinese University of Hong Kong (Ref: 2015.718).

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