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SHORT REPORT

Feasibility and acceptability of routine human immunodeficiency virus testing in general practice: your views

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Early diagnosis of human immunodeficiency virus (HIV) leads to a decreased morbidity and mortality. General practice offers an important window for earlier diagnosis. The British HIV Association produced guidelines in 2008 advocating an increase in HIV testing, with specific references to primary care. This study explores the awareness of, and opinions towards, these guidelines within general practice.

An email questionnaire was sent to 191 general practitioners nationwide, in both areas of high and low HIV prevalence. A total of 80 doctors replied, giving a response rate of 42%. In all, 44% of the respondents were unaware of the guidelines and 89% felt comfortable discussing and carrying out an HIV test themselves; of the 11% that did not, all but one were from low prevalence areas ($P = 0.037$). Respondents felt that main barrier to HIV testing was patient acceptability. Having read the guidelines, 70% believed it would be feasible to follow them in practice. Those who disagreed felt that time implications were the most important reason not to adopt the guidelines.

Almost half the respondents were not aware of the guidelines; having read them, the majority felt that implementation is feasible. This demonstrates the necessity for better dissemination of these guidelines. This study found that the main barrier to performing an HIV test was felt to be patient acceptance, a contradiction to findings from recent pilot studies.

Key words: acceptability; feasibility; HIV testing

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Introduction

At the end of 2010, an estimated 91 500 people were living with human immunodeficiency virus (HIV) in the United Kingdom, approximately a quarter of whom were unaware of their infection. In the same year, half of the new diagnoses were made at a late stage ($CD4 < 350$ cells/mm^3; Health Protection Agency (HPA), 2011). Research suggests that in a given year (2005–2006) at least a quarter of deaths reported in HIV-positive patients could have been avoided if diagnosis had been made at an earlier stage (British HIV Association (BHIVA), 2006).

General practice provides an opportunity for earlier diagnosis of HIV. A recent study showed that of 237 patients newly diagnosed as HIV-positive, more than 75% had been seen by their GP in the previous 12 months (Burns *et al*., 2008).

In 2008, the British HIV Association (BHIVA), the British Association of Sexual Health and HIV

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(a) HIV test offered to at-risk groups:	(b) HIV test offered to patients presenting with indicator diseases:	(c) Routine test offered where population prevalence is >2/1000: to all newly registering patients aged 15-59
1. Men who have sex with men 2. Intravenous drug users 3. Sexual partners of HIV-positive individuals 4. Patients from countries with HIV prevalence >1%	1. Bacterial pneumonia 2. Peripheral neuropathy 3. Severe/recalcitrant seborrhoeic dermatitis or psoriasis 4. Multidermatomal/recurrent herpes zoster 5. Oral candidiasis 6. Chronic diarrhoea of unknown cause 7. Weight loss of unknown cause 8. Lymphadenopathy of unknown cause 9. Sexually transmitted infections 10. Pyrexia of unknown origin	

Figure 1 HIV testing guidelines specific to general practice

(BASHH), and the British Infection Society (BIS) introduced joint guidelines to facilitate an increase in testing in all healthcare settings, with specific criteria applying to General Practice (BHIVA, 2008). The purpose of this work is to investigate the awareness of, and opinions towards, these guidelines (Figure 1).

Methods

In January 2012, an email questionnaire that listed the specific criteria applying to general practice was sent to 191 general practitioners from across the United Kingdom involved in teaching Imperial College students. A reminder was sent two weeks later. Questions are detailed in Table 1. Respondents were stratified by whether they worked in an area of high or low diagnosed HIV prevalence. Prevalence rates by Primary Care Trust were derived from the HPA Survey of Prevalent HIV Infections Diagnosed (SOPHID; HPA, 2012). Prevalence in an area is considered high if the diagnosed prevalence exceeds 2/1000 adults in the age group of 16–59 years (BHIVA, 2008).

Results

Of the 191 doctors contacted, we received 80 responses (response rate: 41.9%). Of respondents, 43.8% were unaware of the guidelines, 35% were aware of them but had not read them, and 21.3% had read them. The majority (88.8%) of general practitioners felt comfortable discussing and carrying out an HIV test themselves, with the remainder preferring to refer to genitourinary medicine for testing. Respondents thought that the main barrier to HIV testing was patient acceptability (37.2%; Table 2).

Only 3 of the 80 respondents (3.75%) would routinely test for all ten of the HIV clinical indicator diseases considered most relevant to general practice (Arkell *et al*., 2011). The majority of respondents would offer testing to patients presenting with sexually transmitted infections (87.5%), multidermatomal or recurrent herpes zoster infection (73.8%), or lymphadenopathy of unknown origin (71.3%), but there was marked variation in offer rate for the other clinical indicator diseases (Table 2).

Having read the guidelines, the majority (70%) of general practitioners believed it would be feasible to follow them in practice; of those who disagreed, most felt that time implications (Table 2) were the most important reason not to adopt the guidelines.

In all, 45% of respondents were from high prevalence areas and 55% were from low. Of the 21.3% who read the guidelines, approximately half were from high and low prevalence areas, respectively. Of the nine GPs who were not comfortable testing for HIV themselves, the majority (eight; 88.9%) were from low prevalence areas ($P = 0.037$; Fisher's exact test).

Discussion

The response rate of 42% confers a limited generalisability to our findings, which may not

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Table 1 Questions sent to general practitioners

Question	Options
Which Primary Care Trust is your surgery affiliated with?	Space for free text
Were you aware of these BHIVA guidelines, published in 2008, on HIV testing?	A. Yes – aware of them and have read them B. Yes – aware of them but have not read them C. No
How comfortable are you in discussing and testing a patient for HIV?	A. Happy to do this B. Prefer to defer to GU medicine services
Which one of the following do you feel is the main barrier to performing an HIV test?	A. Too busy B. Pre-test discussion C. Giving a positive result D. Cost E. Lack of training F. Consent process G. Patient acceptance
In which of these circumstances would you routinely test for HIV? (*Respondents were able to select more than one option for this question*)	A. Bacterial pneumonia B. Peripheral neuropathy C. Severe/recalcitrant seborrhoeic dermatitis or psoriasis D. Multidermatomal/recurrent herpes zoster E. Oral candidiasis F. Chronic diarrhoea of unknown cause G. Weight loss of unknown cause H. Lymphadenopathy of unknown cause I. Sexually transmitted infections J. Pyrexia of unknown origin
Now that you have seen these guidelines, do you feel it would it be feasible to follow them in your practice?	A. Yes B. No
If not, which of the following would be the most important reason?	A. Cost implications B. Time implications C. Future implications for the patient (eg, insurance policies) D. Stigma (I would not feel comfortable offering HIV tests to patients without specific clinical reason) E. Uncertainty about the organisation issuing the guidelines (BHIVA) F. Other (please specify in space for free text below)

BHIVA = British HIV Association; HIV = human immunodeficiency virus; GU = genitourinary.

be entirely representative of the sample. Almost half the respondents were unaware of the guidelines, suggesting that dissemination needs to be improved. Having read the guidelines, the majority of respondents feel implementation of them is feasible. Marked variation is seen, however, in attitudes towards testing in patients presenting with the full spectrum of clinical indicator diseases.

The respondents felt that the main barrier to performing an HIV test was patient acceptability, a contradiction to findings from several studies that have consistently reported good patient acceptability within primary care and other non-specialist settings (Prost *et al*., 2009; HPA, 2011; Rayment *et al*., 2011). Prost *et al*. (2009) interviewed 20 patients aged 18–55 years who had been offered an HIV test as part of a new patient health check when registering at a general practice surgery in London. A total of 17 patients had taken the test and three had refused; however, all 20 felt that the offer of a test in this setting was acceptable. Of 1003

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Table 2 Respondents views

Main barrier to HIV testing	Number of respondents	Percentage of respondents	HIV clinical indicator diseases considered most relevant to general practice	Number of respondents	Percentage of respondents	Main reason not to implement guidelines	Number of respondents	Percentage of respondents
Too busy to test	13	16.7	Bacterial pneumonia	8	10	Cost implications	4	8.9
Pre-test discussion	14	17.9	Peripheral neuropathy	12	15	Time implications	23	51.1
Giving a positive result	4	5.1	Severe/recalcitrant seborrhoeic dermatitis or psoriasis	26	32.5	Future implications for patient (eg, insurance policies)	8	17.8
Cost	1	1.3	Multidermatomal/ recurrent herpes zoster	59	73.8	Stigma (I would not feel comfortable offering HIV tests to patients without specific clinical reason)	8	17.8
Lack of training	10	11.5	Oral candidiasis	38	47.5	Uncertainty about the organisation issuing the guidelines (BHIVA)	2	4.4
Consent process	8	10.3	Chronic diarrhoea of unknown cause	32	40			
Patient acceptance	30	37.2	Weight loss of unknown cause	52	65			
			Lymphadenopathy of unknown cause	57	71.3			
			Sexually transmitted infections	70	87.5			
			Pyrexia of unknown origin	35	43.8			

HIV = human immunodeficiency virus; BHIVA = British HIV Association.

patients offered an HIV test in four non-specialist settings in London, including primary care, 92% agreed with the statement 'It is acceptable to me to be offered an HIV test in this setting'. Despite this, only 54% of 144 staff in the departments concerned felt comfortable offering tests themselves (Rayment *et al*., 2011).

These findings suggest that there may be a discrepancy between healthcare providers' perception of acceptability and real patient attitudes.

Efforts should be made to continue to normalise HIV testing in the community. Normalisation could be achieved, for example, by offering the test as routine procedure to all newly registering patients aged 15–59 years, as the guidelines suggest. Normalised, routine testing has proven to be effective in the antenatal setting, with uptake having reached 96% since the test was introduced as part of routine care (HPA, 2011).

The benefits of normalisation may extend to doctors as well as patients. We observed that the majority of doctors not comfortable in consenting for an HIV test were from low prevalence areas and are therefore perhaps less likely to encounter HIV-positive patients. Increasing testing may aid these doctors in developing the confidence and skills to earlier diagnose HIV.

Of the minority who still did not feel that the guidelines were feasible after having seen them, most identified time as the main impeding factor. Consenting for a HIV test should be comparable with any other medical test and need not involve lengthy discussion (BHIVA, 2008).

Comment

Wider HIV testing may help to tackle the burden of undiagnosed and late presenting HIV infection in the United Kingdom, and is almost certainly cost-effective. Primary care providers are uniquely placed to implement routine and targeted HIV testing programmes. Patients are widely accepting of HIV testing in non-specialist settings. There are time and resource implications, but HIV testing is within the skill set of all healthcare workers. Primary care providers should work with local stakeholders and commissioners to consider how they could best implement published guidance.

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