HIV testing for patients attending general medical services: concise guidelines

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Clin Med 2004;**4**:136–9

ABSTRACT – Traditionally, HIV testing has been confined to those accessing departments of genitourinary medicine (GUM). Blood donors, and more recently women attending for antenatal care, also undergo routine HIV testing. As more testing is undertaken in non-GUM settings there is a need to ensure standardisation of practice irrespective of where it is performed. These guidelines are a summary of the recommendations from the full document, which is available from the website of the British Association for Sexual Health and HIV (BASHH),[1] the specialist society for genitourinary medicine. The full guidelines offer recommendations on when to consider testing for HIV, set out the diagnostic tests available, give methods for increasing the uptake of testing, suggest information to be given before and after testing and explain insurance issues and health promotion principles in the context of HIV testing. The document is aimed primarily at people aged 16 years or older presenting to doctors in general medicine (and its subspecialties). Specific guidelines on testing for those under 16 are available.[2]

Introduction

As HIV becomes a treatable condition, there has been a major change in attitude towards HIV testing. Healthcare providers can be increasingly confident, when discussing with patients whether to test for HIV, that current treatment can increase longevity in those individuals infected with HIV. Since 1995, the uptake of highly active antiretroviral therapy (HAART) in the UK, has resulted in a two-thirds reduction of death from AIDS.[4,5] However, in order to access appropriate treatments it is necessary to be tested for HIV antibodies. Deaths each year occur in those diagnosed late, who may present to general physicians. Also, knowledge of HIV status allows the individual to minimise the risk of transmission to others.

Within the UK, men who have sex with men (MSM) remain at significant risk of acquiring new HIV infection, with evidence that on-going transmission continues at a high rate,[6] yet many remain unaware of their HIV status.[5] In recent years, slightly more than half of newly-diagnosed HIV infections in the UK have been in heterosexuals, and over 70% of heterosexually acquired infections diagnosed in the UK in 2001 were in people from, or those exposed in, Africa.[6] Uptake of HIV testing in this group is reportedly low,[7] and a recent community-based study noted that only 34% of men and 30% of women have had an HIV test,[8] probably because of stigma and the challenging social circumstances of black African people in the UK.[9] As the worldwide epidemic unfolds, people acquiring their infection from other high prevalence areas outside the UK are likely to be seen[10] and it is important not to stereotype heterosexual HIV infection as an African disease.

Even if they are not known to be at high risk, some patients may not disclose their risk activities and others may not be in a traditional risk group. Recent estimates suggest that there are over 41,200 people living with an HIV infection in the UK, of whom around 30% are undiagnosed.[5]

Guideline development process

The protocol used to develop the guidelines and an explanation for the grades of recommendation are given in Tables 1 and 2.

Applicability and utility

Potential barriers to the successful implementation of these guidelines may be healthcare providers' attitudes to HIV testing. There is a need to move from targeting high-risk patients in a GUM clinic with intensive pre- and post-test discussion and counselling by a specialist worker, to more widely available testing for a wider range of people, offered

This guidance will be published, in a slightly expanded version, in booklet format in the series **Concise guidance to good practice: evidence-based guidelines for clinical management** (*Series editor*: Lynne Turner-Stokes FRCP). The series is intended to cover less common disorders that are not covered by the major guideline producers but which are likely to be encountered across several specialties. They are designed to allow clinicians to make rapid informed decisions based on up-to-date and systematically reviewed and accessible evidence.

Table 1. Guideline development process.

SCOPE AND PURPOSE	
• **Overall objectives of the guidelines**	1 To enable physicians who are considering offering HIV testing to their patients to obtain informed consent after providing appropriate information. 2 To improve patient care by enabling general physicians to identify those patients with undiagnosed HIV infection, in order that appropriate treatment can be instituted.
• **The patient group covered**	Individuals at risk of HIV or in whom the diagnosis needs to be considered.
• **Target audience**	All clinicians, including general physicians, GPs and other health professionals who are involved in the decision to test for HIV.
• **Clinical questions covered**	When and how to test for HIV; obtaining consent for testing and feedback of results.
STAKEHOLDER INVOLVEMENT	
• **The Guideline Development Group (GDG)**	A multidisciplinary group comprising of: *Professionals* – Consultants in GUM/HIV, health adviser, nurse, a virologist from the Health Protection Agency (HPA, formerly the PHLS), a general practitioner, a public health scientist from the Medical Research Council and a sexual health policy adviser. *User representation* – The Terrence Higgins Trust was the main facilitator of community and patient input.
• **Funding**	This guideline was commissioned and edited by the Clinical Effectiveness Group (CEG) of BASHH (the British Association for Sexual Health and HIV), and the Clinical Effectiveness Unit of the Royal College of Physicians.
• **Conflicts of interest**	No external funding has been sought or obtained. All authors and group members have declared, and provided details, of any actual or potential conflicts of interest.
RIGOUR OF DEVELOPMENT	
• **Evidence gathering**	Evidence for these guidelines was provided by review of Cochrane Library, Medline, Embase, conference proceedings and other guidelines up to October 2003. Articles not published in English were excluded. Much of the advice is based on expert opinion and practice because of a lack of other evidence.
REVIEW PROCESS	
• **Links between evidence and recommendations**	The system used to grade the evidence and guidance recommendations is that published by the Royal College of Physicians.[3] The gradings are indicated in bold type throughout the text eg **B (IIa).**
• **Piloting and peer review**	Not yet piloted.
IMPLEMENTATION	
• **Tools for application**	Version including information sheet, screening assays and insurance issues is published separately in printed version and on the BASHH website (www.bashh.org).
• **Plans for update**	Review is planned in three years, and forms part of the work undertaken by the CEG for BASHH.

The guidelines have been developed in accordance with the principles laid down by the AGREE (Appraisal of Guidelines Research and Evaluation) Collaboration.[23]

Table 2. Levels of evidence and grades of recommendation.

Level of evidence	Type of evidence	Grade of recommendation
Ia	Meta-analysis of randomised controlled trials.	A
Ib	At least one randomised controlled trial.	
IIa	At least one well designed controlled study, but without randomisation.	B
IIb	At least one well designed quasi-experimental design.	
III	At least one non-experimental descriptive study.	
IV	Expert committee reports, opinions and/or experience of respected authorities.	C

by general healthcare providers. The majority will welcome this opportunity but some will feel reluctant to take on an additional workload or to acquire the skills needed, and others may feel threatened by the perceived loss of their role in this area.

More widespread testing will increase cost but this can be offset by savings in GUM health adviser time, which can be utilised in other areas. Additionally, savings will ensue if onward transmission is reduced by informing asymptomatic people of their status, or more timely effective treatment is given to those who are ill.

The greatest benefit of implementation of the guidance will be the reduction of undiagnosed HIV in the community and in hospitals, thus benefiting the health of both the individual and the public.

Auditable outcome measures

- All patients identified as high risk for HIV to be offered testing.
- All patients with indicator diseases/symptoms to be offered HIV testing.
- All women attending for antenatal care to be offered HIV testing.

Table 3. GUIDELINES ON HIV TESTING.

Recommendation	Grade
1 When to test for HIV	
• HIV testing should be offered wherever knowledge of the individual's HIV status could improve or affect their clinical outcome.	C
• Doctors should consider the possibility of HIV-related illness in the following clinical situations:	
– impairment of the immune system	
– infection with tuberculosis; *Pneumocystis carinii* pneumonia; or cerebral toxoplasmosis	
– cerebral lymphoma, non-Hodgkin's lymphoma or thrombocytopenia	
– herpes zoster in younger people	
– lymphadenopathy	
– unexplained weight loss or diarrhoea; night sweats; or pyrexia of unknown origin	
– oral/oesophageal candidiasis or hairy leucoplakia	
– primary infection with a seroconversion illness (eg flu-like illness, rash, meningitis etc) in the presence of another sexually transmitted infection, eg syphilis, hepatitis B.	C
2 How to test for HIV	
• If established infection is suspected, venous antibody tests should be performed for IgG. **(IIb)**[11–17]	B
• When primary infection is suspected (including needle stick injury):	
– initial venous testing for HIV infection should be undertaken at 2–4 weeks following exposure using DNA amplification (polymerase chain reaction or PCR) testing methods. **(IIb)**[14]	B
– this should be followed by antibody tests for IgM and IgG, with final antibody tests at 12 weeks after the initial test or last known exposure date, if later. **(IIb)**	B
• Oral fluid tests should be performed only if venous testing is not possible, at 14 weeks after exposure. **(IIb)**[18]	B
• A confirmatory test should be used by the laboratory.	C
• All HIV positive patients should have a repeat test performed on a different blood sample.	C
• All equivocal test results should be repeated and the patient referred to a GU medicine or HIV specialist.	C
3 Obtaining consent for HIV testing	
• Testing should be undertaken only with the individual's specific informed verbal consent which should be documented.	C
• A leaflet should be used to provide pre-test discussion and thus increase uptake of HIV testing (see below). **(IIb)**[19]	B
Verbal discussion may be used in addition to explain reasons for testing, assess risk behaviour and determine most recent risk behaviour and 'window period'. If there is doubt about the individual's ability to read or understand the leaflet then verbal discussion is necessary (for further information, see full guidelines[1]).	C
• Pre- test discussion should include the following:	
– the benefits of testing to the individual (and significant others)	
– a risk assessment, including date of last risk activity	
– window period (see above)	
– implications of testing for mortgages/insurance (full discussion available in the main guidelines[1])	
– confidentiality	
– details of how the result will be given	
– information about HIV transmission and risk reduction as necessary.	C
• Further discussion should be given to those with occupational issues, eg who currently or in the future may perform exposure-prone procedures. It may also be necessary for other individuals, eg men who have sex with men, injecting drug users, people from high HIV prevalence areas, eg sub-Saharan Africa, those with a psychiatric history/high level of anxiety/sexual or relationship issues, and rape/sexual assault victims.	C
• Some patients who although unconscious or unable to understand what is being said to them should be considered for testing if it could affect their treatment. Such patients should be dealt with on a case by case basis according to their healthcare needs and in discussion with other healthcare professionals.[20]	C
• If a healthcare worker has occupational exposure and testing of the source patient is considered necessary, the patient's consent should be obtained. In exceptional circumstances, if the patient refuses testing or is unable to give or withhold consent, or remains unconscious for more than 48 hours, testing of an existing blood sample can be performed. An experienced colleague should be consulted first, and there is the possibility of a challenge in the courts or a complaint to the employer or to the GMC. For further information refer to GMC guidance.[20]	
• A written protocol should be available to ensure consistent standards, which can be audited.	C
4 Feedback of results	C
• Systems should be in place for giving HIV results. Ideally this should be face to face where a positive result is likely or for certain patients with particular issues. Arrangements for communicating the results should be discussed with the patient at the time of testing. (In the future use of near patient tests, eg Rapitest, may be appropriate in certain circumstances to enable results to be given on the same day).	
• All HIV positive patients should be referred to a GU medicine or HIV specialist for further advice and management.	
• Post-test discussion in a GU medicine clinic should be offered if required.	

- Informed consent to be obtained on all conscious patients prior to testing.
- Inform 100% of patients found to be HIV positive of their test result.
- Compliance with guidelines.
- All acute trusts to have guidelines on testing in non-GUM settings.

Full guidelines are available on the following web address: www.bashh.org

Summary

There are both individual and public health benefits of increasing the uptake of HIV testing. The National Strategy for HIV and Sexual Health[21] aims to decrease that number, through increased testing of at risk individuals. The recommended standards for NHS HIV services has as Standard Number 2: 'the NHS should develop, implement and monitor strategies to encourage the uptake of testing and reduce the number of people who are unaware of their infection'.[22] This paper highlights the limited evidence in this field but clearly the normalisation of the HIV test in general medical settings has a part to play in increasing testing uptake and in preventing deaths. These guidelines, although primarily designed for medical specialities, could also be utilised in surgical and other specialities as well as in primary care.

By not offering HIV tests where clinically indicated, general physicians are denying their patients access to appropriate life-saving treatment. Routine referral to GUM services prior to testing may increase the stigma associated with testing, lead to delays and is likely to result in fewer people being tested.

Clinicians must ensure that information leaflets on HIV are updated on a regular basis and that clear pathways of care to specialist HIV services are in place for those found to be positive.

Acknowledgements

We wish to thank the following for their valuable contributions to and/or comments on this guideline: Keith Perry, Mark FitzGerald, Brian Gazzard, George Kinghorn, Richard Walsh and Lynne-Turner Stokes.

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