Tackling HIV Testing

Protocol for HIV testing of adults outside the HIV specialist setting

Introduction

In September 2007 the Chief Medical Officer and Chief Nursing Officer sent out a 'Dear Colleague'[1] letter calling for 'a special effort' to improve rates of HIV diagnosis. The letter highlighted evidence that:

- around a third of people living with HIV in the UK were undiagnosed at the end of 2006
- a quarter of people diagnosed annually are diagnosed too late for effective treatment
- late diagnosis accounts for over a third of HIV-related deaths
- a significant proportion of those diagnosed late had been in contact with healthcare professionals in the preceding year with symptoms that were likely to be HIV-related.

In September 2008, the British Association for Sexual Health and HIV (BASHH), the British HIV Association (BHIVA) and the British Infection Society (BIS) launched the *UK national guidelines for HIV testing 2008*[2] aimed at generalists and non-HIV specialists. These state that:

- HIV is now a treatable medical condition with a good prognosis if detected early
- improving levels of detection will help reduce onward transmission
- HIV testing should be offered as routine in certain clinical settings or when patients present with particular indicator conditions (see table below)
- it should be within the competence of any doctor, midwife, nurse or trained healthcare worker to obtain consent for and conduct an HIV test.

To support the implementation of these guidelines, the Medical Foundation for AIDS & Sexual Health (MedFASH) has produced a series of practical resources for use in non-HIV specialist secondary healthcare settings such as emergency departments, medical admissions units, general medical wards and outpatient clinics. This protocol is one in the series and focuses specifically on those situations where HIV enters the differential diagnosis and patients should be offered HIV testing.

Lastly, on 21 September 2009 The CMO reiterated his message of 2007 in a letter[3] to the Presidents of the medical Royal Colleges and Faculties in which he asked for feedback on action taken to promote engagement with the matter by members and fellows.

Who should be offered an HIV test?

People presenting with symptoms suggestive of HIV infection

In the context of an ill person presenting for healthcare in a secondary setting, for whom the differential diagnosis may include HIV infection, HIV testing should be considered as much a part of routine work-up as other tests such as the chest x ray. When offered to patients in this context, the HIV test is less likely to be declined.

There are common clinical clues to underlying HIV infection that can easily be missed if the clinician is not alert to the possibility of HIV. The *UK national guidelines for HIV testing 2008* recommend that HIV testing should be offered and recommended routinely to patients presenting with the following symptoms or conditions:

(see Table on page 2)

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Table: Clinical indicator diseases for adult HIV infection		
	AIDS-defining conditions	**Other conditions where HIV testing should be offered**
Respiratory	Tuberculosis Pneumocystis	Bacterial pneumonia Aspergillosis
Neurology	Cerebral toxoplasmosis Primary cerebral lymphoma Cryptococcal meningitis Progressive multifocal leucoencephalopathy	Aseptic meningitis/encephalitis Cerebral abscess Space occupying lesion of unknown cause Guillain-Barré Syndrome Transverse myelitis Peripheral neuropathy Dementia Leucoencephalopathy
Dermatology	Kaposi's sarcoma	Severe or recalcitrant seborrhoeic dermatitis Severe or recalcitrant psoriasis Multidermatomal or recurrent herpes zoster
Gastroenterology	Persistent cryptosporidiosis	Oral candidiasis Oral hairy leukoplakia Chronic diarrhoea of unknown cause Weight loss of unknown cause Salmonella, shigella or campylobacter Hepatitis B infection Hepatitis C infection
Oncology	Non-Hodgkin's lymphoma	Anal cancer or anal intraepithelial dysplasia Lung cancer Seminoma Head and neck cancer Hodgkin's lymphoma Castleman's Disease
Gynaecology	Cervical cancer	Vaginal intraepithelial neoplasia Cervical intraepithelial neoplasia Grade 2 or above
Haematology		Any unexplained blood dyscrasia including: • thrombocytopenia • neutropenia • lymphopenia
Ophthalmology	Cytomegalovirus retinitis	Infective retinal diseases including herpesviruses and toxoplasma Any unexplained retinopathy
ENT		Lymphadenopathy of unknown cause Chronic parotitis Lymphoepithelial parotid cysts
Other		Mononucleosis-like syndrome (primary HIV infection) Pyrexia of unknown origin Any lymphadenopathy of unknown cause Any sexually transmitted infection

Reproduced with permission from *UK national guidelines for HIV testing* 2008 (BHIVA/ BASHH/ BIS)

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Routine testing for all medical admissions by area of high HIV prevalence

The guidelines also state that an HIV test should be considered in all general medical admissions and new registrations in general practice if diagnosed HIV prevalence in the local (PCT/Local Authority) area exceeds 2 in 1000 of the population. This figure is a proxy marker for a level of undiagnosed HIV infection of 1 in 1000 based on current epidemiological data for the UK from the Health Protection Agency.

Studies from the US have concluded that, at this level of undiagnosed infection, HIV testing is cost-effective across an entire population. These studies informed the HIV testing guidelines issued by the Centers for Disease Control in 2006 which recommend universal testing of all adults aged 15-59 in any healthcare setting in the USA.

As there are limited data to support this recommendation, the UK guidelines call for it to be "thoroughly evaluated for acceptability and feasibility and the resultant data made available to better inform the implementation of this guideline". As of 2009, several pilot studies funded by the Department of Health are underway and these will report their findings in 2010.

For a list of PCTs and Local Authorities that meet the HIV prevalence criterion see the Health Protection Agency's website:
http://www.hpa.org.uk/web/HPAwebFile/HPAweb_C/1228207185359

Performing the HIV test

1. Pre-test discussion

The term 'pre-test discussion' is now more appropriate than 'pre-test counselling', which was used before the advent of effective therapy and which often implied the need for in-depth counselling by a specially-trained healthcare worker. This was because of the exceptionally high level of fear associated with an HIV diagnosis due to it being invariably fatal and highly socially stigmatised. This has changed for the reasons outlined in the introduction above and it is now felt that increasing HIV testing in non-HIV specialist healthcare settings will help reduce stigma as well as increase levels of diagnosis.

These are the points that need to be covered in the pre-test discussion.

Tell the patient why they are being offered the test

This may be because of:

- clinical history/examination/investigation
- a routine opt-out policy in the setting based on local HIV prevalence.

Where it is because of clinical history/examination/investigation (see table above) it can be explained to the patient as follows:
"We routinely test patients with {presenting condition} for HIV because very occasionally this can be associated with HIV and we want to make sure we don't miss anything."

Where it is because of a routine policy based on HIV prevalence it can be explained as follows:
"We routinely test everyone admitted to this hospital for HIV so we can be sure that anyone who needs it gets the right treatment as early as possible."

Ensure the patient is aware of the benefits of knowing their HIV status

Benefits of getting a negative HIV test result:

- reassurance that they do not have HIV infection
- motivation to maintain behaviours that minimise the risk of HIV infection
- HIV infection is excluded from the differential diagnosis for their current condition.

Benefits of knowing they are HIV-positive:

- effective treatment will greatly reduce the risk of morbidity and mortality
- the earlier treatment is started, the better the prognosis
- HIV infection may change the treatment for any other condition they might have and this will ensure they get the correct treatment
- knowing they have HIV will help them avoid passing it on to their sexual partners
- knowing they have HIV at a point before they become seriously ill will give them more control over who to tell, when and how.

Establish how the patient will receive the result

It is essential that procedures are established for how the patient will receive the result, with particular attention to the means by which a positive result will be given. It is good practice:

- for the healthcare worker (or team) doing the test to give the patient the result and to inform the patient that this will be the case
- to make arrangements for immediate review by the HIV specialist team prior to seeing a patient with a positive result
- to record accurate contact details for outpatients in the event that they do not keep their appointment for review or return to collect their test results – especially important if the result is positive
- to inform outpatients that HIV test results (negative or positive) are not usually given over the phone
- to avoid giving HIV test results to outpatients on a Friday afternoon wherever possible so as to ensure they have access without delay to support services eg health advisers or community HIV service user organisations.

Emphasise confidentiality and answer any questions

Patients may express concerns about confidentiality or may have worries about the effect of HIV tests on applications for insurance. Please refer to the Frequently Asked Questions sheet for more information. This sheet can be given to the patient if required.

Ensure you have the patient's verbal consent to HIV testing

- Document this in the notes
- Also document any discussion about informing the patient's GP of the test result.

2. Take blood

10 mL of clotted blood should be sent to Virology for 'HIV antibody/P24 antigen test'. The *UK national guidelines for HIV testing 2008* state that this is now the recommended first line assay and that it is reasonable to expect your laboratory to provide it. Therefore it is helpful to clarify with the laboratory which kind of test is available.

Also, clarify how long the results will take. If a result is required urgently eg pre-dialysis, for a severely ill patient or for a needlestick injury, results should be available ideally within 8 hours and certainly within 24.

Lastly, ensure the laboratory is aware that HIV tests can be ordered by any doctor (not only those from GUM/ID/HIV) and that no written patient consent is required. There have been instances of laboratories erroneously declining to carry out HIV tests ordered by non-HIV specialists on these grounds.

3. Give the HIV test result to the patient

If POSITIVE or EQUIVOCAL. Before seeing the patient, contact the HIV specialist unit, GUM or ID department to arrange an urgent referral. Give the result to the patient promptly at the start of the consultation, as delaying can heighten anxiety.

If NEGATIVE. Patients should also be informed promptly of negative HIV test results and the post-test discussion tailored appropriately to their individual circumstances eg by referring to the original clinical grounds for the test.

The patient who lacks capacity to consent to HIV testing

If a patient is unconscious or mentally inaccessible eg due to coma or dementia, testing may still be carried out if it is in their own immediate interest, but only under the provisions of the Mental Capacity Act 2005, and in accordance with guidance from the GMC[4]. For more detailed discussion of HIV testing in the dementing patient see Collier *et al*[5].

Needlestick injuries and HIV testing the source patient

In September 2008 the Chief Medical Officers' Expert Advisory Group on AIDS (EAGA) published updated guidance on the use of HIV post-exposure prophylaxis (PEP)[6]. The document is intended to be read alongside a local needlestick injury policy and should form part of an integrated approach to blood-borne pathogen exposure management for healthcare workers performing exposure-prone procedures.

It should be noted that it is currently unlawful to test an unconscious source patient solely for the benefit of others eg to prevent injured staff from having to take post-exposure prophylaxis, or to test a conscious patient for that purpose without their express consent. If handled appropriately, such consent is not normally withheld in needlestick situations.

For more detailed discussions on HIV testing following needlestick injuries see Taegtmeyer & Beeching (2008)[7] or White (2007)[8].

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HIV testing contacts in this hospital

It is helpful to have to hand the contact details of people in the hospital who can provide advice and assistance with HIV testing. Complete this section for reference.

	NAME	PHONE/BLEEP
GU MEDICINE		
• Clinical nurse specialist		
• Health advisers		
INFECTIOUS DISEASES		
• Clinical nurse specialist		
HIV/GUM/ID specialist on call (24 hrs)		
MICROBIOLOGY/ VIROLOGY		

FOR USE IN:	**General hospital settings**
PREPARED BY:	
DATE:	
DATE OF NEXT REVIEW:	

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References

1 Sir Liam Donaldson, CMO & Professor Christine Beasley, CNO. *Improving the detection and diagnosis of HIV in non-HIV specialties including primary care.* 13 September 2007. http://www.info.doh.gov.uk/doh/EmBroadcast.nsf/0/EE0FA479BAA64A1B80257355003DFB47/$File/Improving the detection & diagnosis of HIV 13 09 07.rtf?OpenElement

2 Fisher M, Palfreeman A, Ong E on behalf of the British HIV Association, the British Association for Sexual Health and HIV, and the British Infection Society (2009) UK national guidelines for HIV testing 2008. *Clin Med* **9**: 471-6 http://www.bhiva.org/files/file1031097.pdf

3 Chief Medical Officer (2009) *Tackling undiagnosed HIV infection* (letter to the Presidents of medical Royal Colleges and Faculties) 21 September 2009

4 General Medical Council (2008) *Consent: patients and doctors making decisions together*. London: GMC. http://www.gmc-uk.org/news/index.asp#ConsentGuidance

5 Collier A, Ghosh S, Dowie A et al (2008) HIV testing in dementia: clinical, ethical and patient safety implications. *British Journal of Hospital Medicine* **69**(9): 500-503.

6 Department of Health (2008) *HIV post-exposure prophylaxis: guidance from the UK Chief Medical Officers' Expert Advisory Group on AIDS*. London: Department of Health.

7 Taegtmeyer M & Beeching N (2008) Practical approaches to HIV testing in the intensive care unit. *Journal of the Intensive Care Society* **9**(1): 37-41.

8 White SM (2007) Needlestuck. *Anaesthesia* **62**: 119-1201.