

## **Recommendations from the Bacterial Special Interest Group of BASHH: testing for sexually transmitted infections in primary care settings**

Practical guidance is given for the most appropriate tests to use in primary care to diagnose sexually transmitted infections. The guidance is adapted from the Sexually Transmitted Screening and Testing Guidelines for UK genitourinary medicine clinics (British Association for Sexual Health and HIV, 2004).

These recommendations are not evidence based but provide a pragmatic and reasonable guide for testing in a primary care setting. More extensive testing is available by referral to a local genitourinary medicine clinic.

All pathology laboratories have their own operating policies. It is essential to discuss with the laboratory the test methodologies used. The processing of samples varies considerably and may depend on the clinical information provided<sup>1,2</sup>. It is essential to consider these pragmatic guidelines in the context of local variations. There are other guidelines produced from the Health Protection Agency and Association of Medical Microbiologists to inform health care professionals working in laboratories.

The following is guidance based on clinical practice in relation to sexually transmitted infections. More detailed information is in BASHH CEG guidelines for the various organisms and symptom complexes.

1. Jungmann E, Johnson AM, Ridgway G, Durrant K, Robinson AJ. How useful are high vaginal swabs in general practice? Results of a multicentre study. *Int J STD & AIDS* 2004;15: 238-9
2. Noble H, Estcourt C, Ison C, Goold P, Tite L, Carter YH. How is the high vaginal swab used to investigate vaginal discharge in primary care and how do GPs' expectations of the test match the tests performed by their microbiology services? *Sex Transm Infect.* 2004 Jun;80(3):204-6.

### **What to test for and when**

#### **Asymptomatic patients**

Those at particularly high risk of sexually transmitted infections (STIs) are

- under the age of 25 and/or
- with a new sexual partner within the previous 12 months

#### **In women**

It is advisable to undertake as a minimum a test for *Chlamydia trachomatis*. In areas of high prevalence of gonorrhoea, or if there is a local outbreak, a test for *Neisseria gonorrhoeae* should be undertaken in high risk patients. *Trichomonas* is relatively uncommon and usually symptomatic but to exclude sexually transmitted infections this should be tested for.

It is not possible to exclude herpes genitalis by 'screening'. Lesions should be present to warrant taking a test for herpes.

In asymptomatic patients at present there is no value in taking samples for bacterial vaginosis and candida, neither of which are strictly sexually transmitted.

### **In men**

Ideally in the above risk groups a urine test should be taken to test for chlamydia and gonorrhoea. A positive test for gonorrhoea should prompt refer to a level 2 or 3 service for a gonorrhoea culture to be obtained for confirmation purposes and antibiotic sensitivities prior to treatment

### **Symptomatic patients**

#### **Women**

Symptomatic women in the previously defined high risk groups as above should have tests for gonorrhoea, chlamydia, bacterial vaginosis, trichomonas and candida.

In symptomatic women above 25 a risk assessment should be undertaken. If a test for chlamydia and gonorrhoea have never been performed it is advisable that whatever the genital symptom/s these should be excluded. The commonest cause of vaginal discharge will be either bacterial vaginosis or candida. If there has been no change in sexual partner since the last test for chlamydia/gonorrhoea, then empirical treatment based on the pH paper result with further investigation if the symptoms do not resolve should suffice. For normal vaginal pH treat as if candida, for elevated pH (5.0) treat for bacterial vaginosis.

In women with urinary symptoms and/or lower abdominal pain, sexually transmitted organisms should be excluded in the high risk group and considered on the basis of a risk assessment in those over 25 with no change of partner.

#### **Men with symptoms**

Urethral discharge and/or dysuria are usually indicative of an STI. Ideally a diagnosis of urethritis needs to be made for which microscopy of a Gram-stained slide is required (see gonorrhoea). Tests for gonorrhoea and chlamydia are recommended.

Men with testicular swelling or discomfort should have STI excluded. The commonest cause of these symptoms in men under 40 is *Chlamydia trachomatis*. An MSU is also advisable to exclude a urinary tract organism as a cause of this, especially in the over 40s.

### **HIV and Syphilis testing**

Patients who come from high prevalence countries or have lifestyle factors (sex workers, gay men, multiple sex partners, women with bisexual partners, iv drug users, blood transfusions or injection therapy in a resource poor country etc) that put them at higher risk of these infections and/or with symptoms that could be attributed to either of these diseases, syphilis and HIV testing should be offered. Screening for these infections should be considered in high risk groups who are asymptomatic but may be presenting in primary care for other reasons.

### **Hepatitis B**

Screening for Hepatitis B should be undertaken as for HIV/Syphilis risk. Those in a risk group should be offered and given a Hepatitis B vaccination if they are susceptible.

### ***Gonorrhoea***

- recommended test: - culture or nucleic acid amplification test (NAAT). A positive NAAT should be confirmed using culture.  
- if facilities are available, a slide smeared thinly with discharge and air dried for gram staining and microscopy may give a rapid diagnosis.
- sampling site:  
men - urethra (plus pharynx and rectum if the history indicates the possibility of infection but by culture only not NAAT)  
women - endocervix (plus pharynx and rectum if the history indicates the possibility of infection but by culture only not NAAT)
- transportation issues:  
culture - swab to:  
- be sent in transport media (e.g. Amies, Stuarts)  
- refrigerate while awaiting transportation  
- arrive at the laboratory within 24 hours max. Nb loss of viability is inevitable even after 6hours so rapid transport recommended or referral to GU clinic if confirming NAAT.  
- if potential exposure to infection occurred within the past 48 hours then take a repeat swab for culture after 2 weeks
- NAAT - no special precautions (see manufacturer's instructions for details on individual NAATs)

### ***Chlamydia***

- recommended test: - nucleic acid amplification test
- sampling site:  
men - urethra or urine. Urine less traumatic for the patient and recommended  
women - endocervix (urine or vulval/vaginal swabs are also acceptable with NAAT but not with other methods eg EIA)
- transportation issues: no special precautions (see manufacturer's instructions for details on individual NAATs).

### ***Syphilis***

- recommended test: enzyme linked immunosorbent assay (EIA)
- sampling site: blood
- transportation issues: no special precautions
- N.B. serology may take up to 3 months to become positive following infection

### ***Bacterial Vaginosis***

- recommended test: gram stain of a thin smear of vaginal discharge placed on a microscopy slide and air dried. If pH paper is available, an elevated vaginal pH (>4.5) is consistent with bacterial vaginosis but lacks specificity.
- sampling site: swab from **vaginal wall** or self-taken low vaginal swabs
- transportation issues: - swab to be sent in transport media (e.g. Amies, Stuarts) requesting gram stain for mixed flora suggestive of bacterial vaginosis or a air-dried smear sent to the laboratory  
- refrigerate while awaiting transportation

### ***Trichomonas***

recommended test: culture

sampling site: swab from posterior vaginal fornix

transportation issues: - swab to be sent in transport media (e.g. Amies, Stuarts) and arrive at the laboratory within 6 hours  
- refrigerate while awaiting transportation

N.B a higher detection rate will be obtained if the swab is inserted directly into trichomonas culture media

### ***Candida***

*Candida sp.* are part of the normal vaginal flora in many women and microbiological confirmation of thrush is not usually required. A vaginal wall swab sent in transport media can be cultured for *Candida sp.* and its presence would support the diagnosis in a symptomatic patient. The vaginal pH is normal (<4.5) with candidal infection.

### ***Herpes***

recommended test: viral culture or nucleic acid amplification test

sampling site: swab from genital lesion

transportation issues:

viral culture - swab to be sent in viral transport media (stored in a refrigerator until use)

NAAT - no special precautions (see manufacturer's instructions for details on individual NAATs)

### ***HIV***

recommended test: enzyme linked immunosorbent assay (EIA)

sampling site: blood

transportation issues: no special precautions

N.B. serology may take up to 3 months to become positive following infection

### ***Hepatitis B***

recommended test: hepatitis B surface antigen  
hepatitis B surface antibody  
hepatitis B core antibody

sampling site: blood

transportation issues; no special precautions

N.B serology may take up to 6 months to become positive following infection