Variation in clinical practice in genitourinary medicine clinics in the United Kingdom

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Methods: This study was conducted to examine the variation in clinical practice in genitourinary medicine clinics in the United Kingdom in early 2002.

Results: The test for infection least likely to be offered to heterosexuals is an HIV test (71% and 70% of clinics routinely offer this to male and female heterosexuals respectively). The practice of permitting "low risk" patients to telephone for their HIV results now extends to 24% of clinics. 34% of clinics do not require patients with non-specific urethritis to attend for follow up. 41% of clinics routinely ask patients treated for Chlamydia trachomatis to return for a follow up chlamydia detection test. 25% of clinics routinely offer two tests of cure to all patients with gonorrhoea. 6% of clinics do not routinely offer syphilis serology to heterosexuals. Other significant variations in clinical practice were documented.

Conclusions: Overall, our findings indicate the need for further evidence to guide clinical practice and a wider knowledge and debate of national guidelines.

RESULTS

Tables 1–3 indicate the variation in practice between clinics in respect of tests offered routinely to all asymptomatic male heterosexual, female, and homosexual/bisexual patients presenting for an infection screen.

In all, 170/181 (94%) of clinics offer a full infection screen to all patients requesting an HIV test; 42/176 (24%) of clinics invite "low risk" patients to telephone for their HIV results. Of these 42 clinics only seven have, to date, given HIV positive results over the telephone. Of these seven, one noted that "equivocal results cause a little consternation" while two others recorded protocol lapses—for example, high risk patients being given results over the telephone.

A total of 109/165 (66%) clinics ask all male patients with "non-specific" urethritis to return for a test of cure; 7/179 (4%), 13/180 (7%), and 165/178 (93%) clinics ask women with vaginal candidiasis, bacterial vaginosis, and vaginal trichomonas, respectively, to return for a test of cure.

Fifty of 171 (29%) clinics do not review all patients provided with home therapy with podophyllotoxin or imiquimod for genital warts; 72/175 (41%) clinics routinely ask all patients...
treated for proved *Chlamydia trachomatis* to return for a test of cure by a chlamydia detection test.

Patients treated for *Neisseria gonorrhoeae* are routinely asked to return for no tests of cure in 1/179 (1%) clinics, for one test of cure in 100/179 (55%), and two tests of cure in 44/179 (25%). In 38/179 (21%) the number of tests of cure varies.

**DISCUSSION**

This study has demonstrated considerable variation in some clinical practices in genitourinary medicine clinics in the United Kingdom. This variation occurs in some situations because there is no consensus or evidence based guideline governing clinical practice. In other situations such guidance exists but is not universally followed. The test for infection least likely to be offered to heterosexuals is an HIV test (only 71% and 70% of clinics routinely offer this to male and female heterosexuals respectively). The National Strategy for Sexual Health and HIV will require all genitourinary medicine clinic attenders to be offered this test on their first screening for sexually transmitted infections by the end of 2004.4

This policy is intended to reduce the number of undiagnosed HIV infected people. As HIV testing increases within genitourinary medicine clinics, workloads will inevitably rise. This rise will be especially marked if all patients are required to return to receive their HIV result. Some patients may be deterred from being tested if required to return for the result. This study shows that the practice of permitting "low risk" patients to telephone for their HIV results now extends to 24% of clinics. The occasion of giving the result may still provide an opportunity for "post-test counselling". As stated in the European guidelines, although “the majority of HIV tests are negative” the consultation in which the client receives his result may be a fruitful moment in underscoring some of the points from the pretest counselling.”

The practice of giving HIV results over the telephone may reflect the growing “normalisation” of HIV infection and a move away from a more paternalistic approach which denies patients the choice of whether to telephone for an HIV result while allowing them to telephone for other results. Nevertheless, there is a need for proper assessment of this practice by audit and patient satisfaction surveys to allow informed debate within the specialty.

Despite the recent outbreaks of syphilis in the United Kingdom among heterosexuals (as well as those among homosexuals) 6% of clinics do not routinely offer syphilis serology to male or female heterosexuals. 3/176 (2%) clinics fail to offer syphilis serology routinely to homosexual/bisexual patients.

**Microscopy of vaginal smears**

Microscopy of vaginal smears is not performed for asymptomatic non-specific urethritis in 9% of clinics. The consequences of this omission for the health of the individual and the public are not known. *Chlamydia trachomatis* is, however, screened for in 99–100% of cases. The continued use of the two-glass urine test has been questioned and 16% of clinics now omit visual examination of first pass urine.

Microscopy of cervical specimens from asymptomatic women is omitted in 8% of clinics, thereby making it unlikely that unknown contacts of gonorrhoea will be diagnosed at their first attendance and presumably causing potential problems with their recall for treatment and the possible transmission of infection in the meantime. Nineteen per cent of clinics omit microscopy of urethral specimens from women. Barlow found that microscopy of urethral samples in women contributed only an extra 2.6% to the rate of presumptive diagnosis of gonorrhoea.24 In contrast, Goh later found that urethral microscopy allowed a presumptive diagnosis to be made in 181/1148 (15.8%) women with urethral and/or cervical gonorrhoea, which would have been missed on cervical microscopy alone.25 It may be argued that the prevalence of gonorrhoea is low in some areas and, therefore, the small chance of finding a positive result does not justify the time spent on microscopy of these specimens.

The omission of candidate culture by 21% of clinics may be justified by the lack of obvious benefit from diagnosing asymptomatic candidiasis. Trichomonas is not cultured for routinely by 65% of clinics despite the sensitivity of microscopy being only 50–70% in expert hands,12 and although it is possible to culture for trichomonas together with candida in a single medium.11 Sixty six per cent of clinics require all patients with non-specific urethritis to attend for a follow up test of cure. The UK Clinical Effectiveness Guideline states that although follow up is an important part of management, “repeat urethral smear and first pass urine specimen to look for persistent urethritis (is only necessary) if the patient is symptomatic or has a urethral discharge on examination.”14

Twenty nine per cent of clinics providing home treatment for genital warts do not require all patients to return for follow up. Clearly this has advantages for patients and clinics and is a further move towards greater autonomy for the patient but, at the same time, it increases the risk that persistent warts will remain untreated with a possible greater risk of onward transmission. The national guideline indicates the need to review the patient at the end of the course of treatment to monitor response, etc.15

Forty one per cent of clinics routinely ask patients treated for *Chlamydia trachomatis* infection to return for a follow up chlamydia detection test, which operates both as a test of cure and a test of re-infection. However, Radcliffe et al found that “routine test of cure is unnecessary following appropriate

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**Table 2** Tests offered routinely to all asymptomatic female patients presenting for an infection screen

<table>
<thead>
<tr>
<th>Test</th>
<th>No of clinics offering test</th>
<th>Total No of clinics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Syphilis serology</td>
<td>167</td>
<td>177</td>
</tr>
<tr>
<td>Gram staining</td>
<td>166</td>
<td>180</td>
</tr>
<tr>
<td>C. trachomatis identification</td>
<td>178</td>
<td>180</td>
</tr>
<tr>
<td>HIV test</td>
<td>174</td>
<td>180</td>
</tr>
<tr>
<td>Chlamydia culture</td>
<td>174</td>
<td>180</td>
</tr>
<tr>
<td>Candida culture</td>
<td>172</td>
<td>180</td>
</tr>
<tr>
<td>T vaginalis culture</td>
<td>170</td>
<td>180</td>
</tr>
</tbody>
</table>

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**Table 3** Tests offered routinely to all asymptomatic homosexual/bisexual patients presenting for an infection screen

<table>
<thead>
<tr>
<th>Test</th>
<th>No of clinics offering test</th>
<th>Total No of clinics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Syphilis serology</td>
<td>173</td>
<td>176</td>
</tr>
<tr>
<td>Urethral smear for Gram staining</td>
<td>164</td>
<td>180</td>
</tr>
<tr>
<td>N gonorrhoeae identification</td>
<td>178</td>
<td>180</td>
</tr>
<tr>
<td>HIV test</td>
<td>174</td>
<td>180</td>
</tr>
<tr>
<td>Hepatitis serology</td>
<td>172</td>
<td>180</td>
</tr>
<tr>
<td>Chlamydia culture</td>
<td>165</td>
<td>180</td>
</tr>
<tr>
<td>Candida culture</td>
<td>164</td>
<td>180</td>
</tr>
</tbody>
</table>

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[1] 41/179 (25%). In 38/179 (21%) the number of tests of cure is 1/179 (1%) clinics, for one test of cure in 100/179 (55%), and two tests of cure in 44/179 (25%). In 38/179 (21%) the number of tests of cure varies.

[2] 6% of clinics do not routinely offer syphilis serology to male or female heterosexuals. 3/176 (2%) clinics fail to offer syphilis serology routinely to homosexual/bisexual patients.

[3] Microscopy of cervical specimens from asymptomatic women is omitted in 8% of clinics, thereby making it unlikely that unknown contacts of gonorrhoea will be diagnosed at their first attendance and presumably causing potential problems with their recall for treatment and the possible transmission of infection in the meantime. Nineteen per cent of clinics omit microscopy of urethral specimens from women. Barlow found that microscopy of urethral samples in women contributed only an extra 2.6% to the rate of presumptive diagnosis of gonorrhoea. In contrast, Goh later found that urethral microscopy allowed a presumptive diagnosis to be made in 181/1148 (15.8%) women with urethral and/or cervical gonorrhoea, which would have been missed on cervical microscopy alone.

[4] It may be argued that the prevalence of gonorrhoea is low in some areas and, therefore, the small chance of finding a positive result does not justify the time spent on microscopy of these specimens.

[5] The omission of candidate culture by 21% of clinics may be justified by the lack of obvious benefit from diagnosing asymptomatic candidiasis. Trichomonas is not cultured for routinely by 65% of clinics despite the sensitivity of microscopy being only 50–70% in expert hands, and although it is possible to culture for trichomonas together with candida in a single medium.

[6] Sixty six per cent of clinics require all patients with non-specific urethritis to attend for a follow up test of cure. The UK Clinical Effectiveness Guideline states that although follow up is an important part of management, “repeat urethral smear and first pass urine specimen to look for persistent urethritis (is only necessary) if the patient is symptomatic or has a urethral discharge on examination.”

[7] Twenty nine per cent of clinics providing home treatment for genital warts do not require all patients to return for follow up. Clearly this has advantages for patients and clinics and is a further move towards greater autonomy for the patient but, at the same time, it increases the risk that persistent warts will remain untreated with a possible greater risk of onward transmission. The national guideline indicates the need to review the patient at the end of the course of treatment to monitor response, etc.

[8] Forty one per cent of clinics routinely ask patients treated for *Chlamydia trachomatis* infection to return for a follow up chlamydia detection test, which operates both as a test of cure and a test of re-infection. However, Radcliffe et al found that “routine test of cure is unnecessary following appropriate
anti-chlamydial therapy," and both the UK Clinical Effectiveness Group Guideline[5] and the European Guideline[6] state that microbiological follow-up is not strictly necessary after treatment with doxycycline or azithromycin. Both guidelines, however, acknowledge the potential uses of follow-up for health education, follow-up of partner notification, and reassurance. In contrast, the practice of 25% of clinics routinely offering two tests of cure to all patients with gonorrhoea may be judged to be unnecessary and expensive.20

There is a high degree of uniformity of approach in screening asymptomatic homosexual/bisexual men except in respect of hepatitis A and C. The relevant clinical effectiveness guideline of the Medical Society for the Study of Venerable Diseases is non-committal on the need to screen homosexual men for hepatitis A and recommends “considering screening for hepatitis C in gay men.”21

The large increases in attendances at genitourinary medicine clinics in recent years has caused difficulties of access. Waiting for appointments increases the duration of infectiousness which, according to mathematical models, is proportional to the average number of secondary cases of infection.22 In addition, clinical practices may have been modified in an attempt to make genitourinary medicine clinics more efficient. This study describes considerable variation in clinical practice. This variation appears to arise partly because of the lack of evidence to guide the clinician and partly because guidelines are not always adhered to. Wider knowledge and debate about the content of guidelines may be necessary to ensure that they are more widely adopted. Some variations in clinical practice may be counterproductive to achieving good sexual health in the individual and in the community.

CONTRIBUTORS
CAC initiated the study, wrote each draft of the questionnaire, and each draft of the paper; RW, EF, DR, and PK contributed to the revisions of the questionnaire and the paper; RW coordinated the distribution and collection of the questionnaires nationally. Regional Representatives (see below) of the BCCG coordinated the distribution and collection of questionnaires within their respective regions.

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Conflict of interest: None.

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REFERENCES