Methicillin resistant Staphylococcus aureus (MRSA) balanoposthitis in an insulin dependent diabetic male

Editor,—Balanoposthitis is a common condition affecting 11% of the male attendees at GUM clinics.1 It is an inflammation of the glans penis and the prepuce, and its causes include bacterial and yeast infections, parasitic infestations, trauma, and irritants.2 However, to our knowledge, no case has been reported to be caused by MRSA.

A 49 year old insulin dependent diabetic male was an inpatient for repair of an upper jaw fracture developed a penile itch with swollen foreskin, which was difficult to retract, together with longitudinal fissures on the prepuce and subpreputial discharge. In his recent past he had had two incidents of unprotected sexual intercourse with two known females. He was clinically diagnosed as having candida balanitis and was commenced on clotrimazole cream, which did not produce a clinical response over the course of a week. The swabs taken before the commencement of clotrimazole cream failed to grow candida; however, MRSA resistant to erythromycin, penicillin, and flucloxacillin but sensitive to mupirocin was isolated.

Screening tests for chlamydia, gonorrhoea, and trichomonas were negative. A 10 day course of mupirocin 2% ointment completely resolved his symptoms. Subpreputial swab after treatment was negative.

MRSA has been a well recognised cause of hospital acquired infections worldwide since it was first detected in Europe in the 1960s.3 The organism can survive for long periods in both the hospital and the home environment and can colonise the skin, nose, or throat of patients and healthcare staff.4 Several reports have suggested that diabetic patients are more susceptible to Staphylococcus aureus bacteremia5 MRSA has been isolated from different sites in diabetic patients but not the genitalia.6 MRSA rarely invades intact skin; however, it can give rise to severe infections for example, wound infection, bacteremia, endocarditis, and osteomyelitis.7 This case illustrates the fact that MRSA is an organism to consider in patients who develop balanoposthitis while in hospital or shortly after discharge especially those whose immune system is incompetent.

There may be implications of spread of MRSA in the community for sexual contacts of patients carrying MRSA in the genital area.

Contributors: Both authors managed the patient and wrote the manuscript.

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The London Apothecaries Diploma in Genito-Urinary Medicine: death of the viva voce?

Editor,—The Society of Apothecaries Diploma in Genito-Urinary Medicine is likely to become even more important in the near future as all specialist registrars and probably...
A pilot study was conducted to compare the sensitivity of LCR testing for genital chlamydial infection in men, taken from the meatus itself against the standard technique. All male patients attending the GUM clinic over a 3 month period were included in the study if they had symptoms or signs compatible with chlamydial, or if a contact of a known case of chlamydial. A swab was taken from the urethra in the standard fashion. A second swab was taken from the meatus. After the sixth week of the study the order of the first and second swabs was changed, in order to evaluate any bias related to the order of the swabs. Specimens were processed using Abbott Laboratories LCX Chlamydia and handled according to the manufacturer’s guidelines.

Twenty five patients were asked to evaluate the swabs and to state which swab caused least discomfort or if there was no difference between them. A total of 208 men were recruited to the study. The overall prevalence of genital chlamydial infection in our population was 25% (52/208). A confirmed diagnosis was made by both of the samples performed from the same man were positive for chlamydial, or if one sample was positive together with an equivocal result. There were no false positive tests using these criteria giving all methods 100% sensitivity.

There was no significant difference in detection rates between the subgroups where the order of swabs was changed.

There was no significant difference in the sensitivity of samples taken from the meatus (100%) or from deep within the urethra (96.2%). Of the 25 men questioned two (8%) felt that the meatal swab caused more discomfort; 18 (72%) had a subjective preference for the meatal technique. Only four men (16%) stated the swabs were similar in terms of discomfort.

A meatal swab for the detection of chlamydia is more acceptable to patients and has a similar sensitivity to the traditional technique of urethral sampling.

Urine samples, although non-invasive, are less likely to yield a definitive diagnosis compared to urethral/meatal swabs and require extra processing by laboratories. In a high prevalence setting (such as a sexual health clinic), the meatal technique provides a specific, sensitive, and well-tolerated sampling method for the detection of chlamydia infection in men.

Further studies to confirm our findings in asymptomatic, and asymptomatic, chlamydia infection are needed before introducing this technique as routine clinical practice.

Detection of chlamydia on meatal swabs

EDITOR,—The advent of ligase chain reaction (LCR) and other DNA technologies and their greater sensitivity has allowed the possibility of taking samples other than from the urethra in men, including urine samples.1–3 Although urine samples have the advantage of being collected non-invasively, the sensitivity of LCR testing on such samples is less than for urethral samples.4 This may be due to the presence of inhibitors in urine.5 The reduced sensitivity on urine samples may be unacceptable, particularly if testing populations with a high prevalence of chlamydia infection. Furthermore processing of urine samples is more laborious.

It is currently recommended that specimens for the detection of genital Chlamydia trachomatis infection by LCR are taken 2–4 cm from the urethral orifice and the swab rotated for 3.5 seconds.7 Many men are unable to tolerate this. It is often painful and may discourage patients from seeking medical attention.

A pilot study was conducted to compare the sensitivity of LCR testing for genital chlamydial infection in men, taken from the meatus itself against the standard technique. All male patients attending the GUM clinic over a 3 month period were included in the study if they had symptoms or signs compatible with chlamydial, or if a contact of a known case of chlamydial. A swab was taken from the urethra in the standard fashion. A second swab was taken from the meatus. After the sixth week of the study the order of the first and second swabs was changed, in order to evaluate any bias related to the order of the swabs. Specimens were processed using Abbott Laboratories LCX Chlamydia and handled according to the manufacturer’s guidelines.

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Further studies to confirm our findings in asymptomatic, and asymptomatic, chlamydia infection are needed before introducing this technique as routine clinical practice.
Men reporting UAI with a partner of unknown or discordant HIV status. Non-concordant UAI was more likely to report concordant UAI with a casual partner. HIV prevention programmes need to reinforce risk reduction strategies, tailored to a person's HIV status, while simultaneously addressing high risk sexual behaviour.  

Table 1  
Unprotected anal intercourse (UAI) in the previous 3 months

<table>
<thead>
<tr>
<th>Type of partner for UAI</th>
<th>HIV negative men (n=147)*</th>
<th>HIV positive men (n=126)*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Main only</td>
<td>Casual†</td>
</tr>
<tr>
<td>Men in a relationship</td>
<td></td>
<td></td>
</tr>
<tr>
<td>reporting</td>
<td>n=276</td>
<td>n=63</td>
</tr>
<tr>
<td>Concordant UAI</td>
<td>27.1 (75)</td>
<td>15.4 (4)</td>
</tr>
<tr>
<td>Non-concordant UAI</td>
<td>8.0 (22)</td>
<td>6.5 (18)</td>
</tr>
<tr>
<td>Total</td>
<td>35.1 (97)</td>
<td>22.0 (62)</td>
</tr>
<tr>
<td>Men not in a relationship reporting</td>
<td>n=199</td>
<td>n=63</td>
</tr>
<tr>
<td>Concordant UAI</td>
<td>2.5 (5)</td>
<td>2.5 (5)</td>
</tr>
<tr>
<td>Non-concordant UAI</td>
<td>1.5 (3)</td>
<td>16.1 (32)</td>
</tr>
<tr>
<td>Total</td>
<td>4.0 (8)</td>
<td>18.6 (37)</td>
</tr>
</tbody>
</table>

*Data on UAI or relationship status missing for two HIV negative men.
†Men reporting UAI with a partner of unknown or discordantly HIV status.

Concordant UAI whether they were in a relationship or not (22.7% vs. 20.6%, p=0.9), often with a casual rather than main partner. The observation that HIV negative men were more likely to report concordant UAI in the context of a relationship while HIV positive men were just as likely to report concordant UAI whether they were in a relationship or not was confirmed in a multivariate model. With HIV status and relationship as independent variables and concordant UAI as the dependent variable, the interaction between all variables and concordant UAI as the dependent variable was not confirmed in a multivariate model.
kind of interference, and that basic common sense should prevail.

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Lichen sclerosus of the glans is significantly associated with penile carcinoma

EDITOR,—We read with interest the article by Riddell et al on 66 men with penile lichen sclerosus (PLS) attending a department of genitourinary medicine.1 In this study, the authors found no cases of malignancy.

We have previously reported a retrospective study on the incidence of cancer on 86 cases of PLS retrieved from our histopathological files over a 10 year period (1987–97).2 In that study, five cases showed malignant transformation—namely, squamous cell carcinoma (SCC) (three cases), in situ carcinoma (one case), and verrucous carcinoma (one case).

Since that report, we decided to interview all PLS patients in order to rule out any further malignancy that occurred over time. Of 86 patients identified, 60 were evaluated at our clinic. Among these, we found three additional patients treated with partial penectomy for invasive SCC at other institutions.

Their medical records were obtained together with paraffin-embedded tissue samples to perform polymerase chain reaction (PCR) for human papillomavirus (HPV) testing. Clinical and laboratory information for these cases, together with previously reported patients, are summarised in table 1.

In this current study, eight (9.3%) out of 86 patients with PLS developed an epithelial cancer. Data analysis using the t test confirmed in our series a statistically significant risk of malignant degeneration (p <0.05).

Clinically, the most common presentation of epithelial cancer arising with PLS was that of an infiltrated or ulcerated plaque followed, in decreasing order of frequency, by a nodular lesion or verrucous papules. The glans was the most commonly affected area. The average age of onset of PLS was 45 years, and that of development of cancer was 62 years. The average lag time from onset of PLS to cancer development was 18 years (range 10–34 years). This long latency time might explain the paucity of cases, mostly anecdotal, reported in the literature in the past 22 years (approximately 20)3,4 compared with our study, in which a long follow up disclosed 9.3% malignant degeneration in a series of 86 patients.

Also, the latency time was shorter in the HPV-positive patients (average 15 years) compared with the HPV-negative patients (average 23 years). The role of HPV in the pathogenesis of penile cancer is not fully understood. Some HPVVs, such as type 16 and 18, are likely to play a part, but not all penile carcinomas are HPV positive, as shown in our study. Also, PLS is not commonly associated with HPV infection.1 In our study we found five patients positive for HPV 16 infection, and this may have hastened the progression towards cancer resulting in a shorter lag time. However, routine HPV testing on larger series is necessary in order to draw any definitive conclusion.

Similarly to vulvar lichen sclerosus, which has been observed to undergo malignant degeneration in 3–6% of women,5 a likely malignant evolution of PLS should be considered. Careful and systematic histopathological evaluation of any ulcerated or indurated plaques developing within PLS is therefore strongly recommended. The association between PLS and cancer may very well be underestimated and there is a need for further investigation that includes long term follow up and routine PCR analysis for HPV infection.

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Table 1 Clinical and histopathological features of eight cases of carcinoma on penile lichen sclerosus

<table>
<thead>
<tr>
<th>Patient No</th>
<th>Age of onset of PLS (years)</th>
<th>Age of onset of Ca (years)</th>
<th>Lag time (years)</th>
<th>Site</th>
<th>Clinical aspect of malignancy on PLS</th>
<th>Histopathology</th>
<th>PCR testing for HPV</th>
</tr>
</thead>
<tbody>
<tr>
<td>1*</td>
<td>41</td>
<td>62</td>
<td>21</td>
<td>glans</td>
<td>fungating keratotic nodule with a yellow-white, slightly ulcerated verrucous papules</td>
<td>SCC</td>
<td>negative</td>
</tr>
<tr>
<td>2*</td>
<td>36</td>
<td>59</td>
<td>23</td>
<td>glans</td>
<td>multiple erythematous, indurated, and ulcerated plaques sharply circumscribed, erythematous, oozing, and slightly infiltrated plaque</td>
<td>SCC</td>
<td>well differentiated</td>
</tr>
<tr>
<td>3*</td>
<td>41</td>
<td>55</td>
<td>14</td>
<td>glans, coronary sulcus</td>
<td>sharply circumscribed, erythematous, and ulcerated plaque</td>
<td>SCC</td>
<td>well differentiated</td>
</tr>
<tr>
<td>4*</td>
<td>39</td>
<td>49</td>
<td>10</td>
<td>glans, coronary sulcus</td>
<td>sharply circumscribed, erythematous, and ulcerated plaque</td>
<td>SCC</td>
<td>well differentiated</td>
</tr>
<tr>
<td>5*</td>
<td>29</td>
<td>47</td>
<td>18</td>
<td>glans</td>
<td>exophytic verrucous whitish nodule sharply circumscribed, erythematous, and ulcerated plaque</td>
<td>SCC</td>
<td>well differentiated</td>
</tr>
<tr>
<td>6</td>
<td>75</td>
<td>85</td>
<td>10</td>
<td>glans</td>
<td>sharply circumscribed, erythematous, oozing, and slightly infiltrated plaque</td>
<td>SCC</td>
<td>well differentiated</td>
</tr>
<tr>
<td>7</td>
<td>66</td>
<td>70</td>
<td>15</td>
<td>glans, coronary sulcus</td>
<td>sharply circumscribed, erythematous, eroded, crusted, and indurated plaque</td>
<td>SCC</td>
<td>well differentiated</td>
</tr>
<tr>
<td>8</td>
<td>33</td>
<td>67</td>
<td>34</td>
<td>glans, coronary sulcus</td>
<td>sharply circumscribed, erythematous, eroded, crusted, and indurated plaque</td>
<td>SCC</td>
<td>well differentiated</td>
</tr>
</tbody>
</table>

*Previously reported cases.1

PLS = penile lichen sclerosus; Ca = carcinoma; PCR = polymerase chain reaction; HPV = human papillomavirus; SCC = squamous cell carcinoma; VC = verrucous carcinoma.


Accepted for publication 22 March 2001

Third trimester screening or safer sex to prevent mother to child transmission of HIV

EDITOR,—Since 1992 Department of Health guidelines have recommended that HIV screening be offered to all pregnant women in high seroprevalence areas of high seroprevalence6 but implementation and uptake has been poor. In 1998 an intercollegiate working party recommended that HIV testing be integrated with antenatal screening for other infections and that the test should be offered and recommended to all pregnant women in high seroprevalence areas.1 In 1999 the Department of Health extended these recommendations to all regions aiming to reduce neonatal HIV infection by 80% by 2002.2 We present the case of an infant with symptomatic HIV infection, whose mother’s antenatal HIV test was negative and discuss the implications.

A 3 month old female, born at term by spontaneous vaginal delivery and breastfed, presented with a 1 week history of increased respiratory difficulty. Following further deterioration, she was transferred to St Mary’s Hospital and ventilated. Pneumocystis carinii pneumonia (PCP) was diagnosed on bronchoalveolar lavage. Anti-HIV antibodies were present in serum and HIV infection was confirmed by the detection of HIV-DNA in peripheral blood mononuclear cells (PBMC) by PCR amplification. HIV-1 infection was confirmed in both parents. Her asymptomatic mother had received antenatal care from the 12th week of gestation and was HIV seronegative at 29 weeks. To investigate a
possible false negative result, other sera stored at various times were retrieved and tested. The results, which show seroconversion late in pregnancy, are summarised in table 1.

The HIV antibody test is usually performed at the booking visit with other routine antenatal screens. This allows the parents time to adjust to the diagnosis before delivery, to consider family planning issues and interventions to minimise the risk of mother to child transmission. In addition, mothers with advanced immunosuppression benefit from antiretroviral therapy. Although rarely reported, an HIV seronegative mother whose partner has undiagnosed HIV infection is at continued risk of infection. This may become more common in the United Kingdom as heterosexual intercourse. This may become more common in the United Kingdom as heterosexual intercourse. This may become more common in the United Kingdom as heterosexual intercourse. This may become more common in the United Kingdom as heterosexual intercourse. This may become more common in the United Kingdom as heterosexual intercourse. This may become more common in the United Kingdom as heterosexual intercourse. This may become more common in the United Kingdom as heterosexual intercourse. This may become more common in the United Kingdom as heterosexual intercourse. This may become more common in the United Kingdom as heterosexual intercourse. This may become more common in the United Kingdom as heterosexual intercourse.

Repeat antenatal screening late in pregnancy, as is recommended for syphilis in the United States, would identify some primary HIV infections during gestation. However, if maternal infection is not prevented transmission during lactation would remain a risk and there would be significant logistic and cost implications. The extension of testing for HIV (and other infections) to the partners of pregnant women is appealing as both maternal and infant infections could be prevented (and the infected male may benefit from earlier diagnosis and treatment) but would require a fundamental change to antenatal care. A practical approach, which may prevent maternal and neonatal infection (but not identify the infected male) is to use the opportunity, when giving negative HIV, hepatitis B, and syphilis results to the mother, to discuss the sexual transmission of infections, to emphasise that the negative results cannot be extrapolated to the partner, and advocate safer sex, which is commonly abandoned following conception.

Table 1 Peripartum HIV test results

<table>
<thead>
<tr>
<th>Time (in weeks of gestation)</th>
<th>1 T = 12 weeks (“Booking blood”)</th>
<th>2 T = 29 weeks</th>
<th>3 T = 33 weeks (“Booking blood”)</th>
<th>4 T = 13 weeks post partum (child presents)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital where blood taken</td>
<td>X Blood was stored and retrospectively tested</td>
<td>Y Index antenatal test (serum not available for repeat retrospective testing)</td>
<td>Y Blood was stored and retrospectively tested</td>
<td>St Mary’s Postnatal test. Blood stored</td>
</tr>
<tr>
<td>HIV antibody screening tests</td>
<td>Clear negative Detect-HIV&lt;sup&gt;â&lt;/sup&gt;</td>
<td>Weak positive</td>
<td>Clear negative</td>
<td>Abbott AxSYM HIV 1/2&lt;sup&gt;GE&lt;/sup&gt;</td>
</tr>
<tr>
<td>i OD=0.35, CO=0.01</td>
<td>OD=0.938, CO=0.252</td>
<td>OD=0.486, CO=0.839</td>
<td>OD=0.038, CO=0.144</td>
<td>Abbott AxSYM HIV 1/2&lt;sup&gt;GE&lt;/sup&gt;</td>
</tr>
<tr>
<td>ii Wellcomeco HIV Recombinant&lt;sup&gt;â&lt;/sup&gt;</td>
<td>OD=1.179, CO=0.696</td>
<td>OD=1.256, CO=1.256</td>
<td>OD=−0.030, CO=0.144</td>
<td>Strong positive</td>
</tr>
<tr>
<td>HIV specific antibody tests</td>
<td>Clear negatives, (OD/CO) HIV</td>
<td>Strong positives, (OD/CO) HIV</td>
<td>Strong positives for IgG and IgA: weak positive IgM (OD/CO) HIV</td>
<td>Strong positives for IgG and IgA: weak positive IgM (OD/CO) HIV</td>
</tr>
<tr>
<td>(CPhIL in-house EIAs)</td>
<td>IgG=0.4, IgM=0.04</td>
<td>IgG=12.34, IgM=10.04, IgA=8.28</td>
<td>IgG=15.41, IgM=3.14, IgA=4.18</td>
<td>IgG=15.41, IgM=3.14, IgA=4.18</td>
</tr>
<tr>
<td>HIV western blot&lt;sup&gt;â&lt;/sup&gt;</td>
<td>—</td>
<td>—</td>
<td>HIV1 gag p17&lt;sup&gt;â&lt;/sup&gt;, p24&lt;sup&gt;++&lt;/sup&gt;</td>
<td>HIV1 gag p17&lt;sup&gt;â&lt;/sup&gt;, p24&lt;sup&gt;++&lt;/sup&gt;</td>
</tr>
<tr>
<td>HIV RNA (copies/ml)</td>
<td>Not detected (&lt; Limit of detection)</td>
<td>—</td>
<td>HIV1 gag p17&lt;sup&gt;â&lt;/sup&gt;, p24&lt;sup&gt;++&lt;/sup&gt;</td>
<td>HIV1 gag p17&lt;sup&gt;â&lt;/sup&gt;, p24&lt;sup&gt;++&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>HIV1 gag p17&lt;sup&gt;â&lt;/sup&gt;, p24&lt;sup&gt;++&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

<sup>â</sup>Enzyme immunoassay (EIA) for detection of antibody to HIV-1 and 2. Biorad Immunosystems Inc, Montreal, Quebec, Canada.

<sup>â</sup>EIA for detection of antibody to HIV-1 (Abbott Murex), Murex Biotech Ltd, Dartford, UK.

<sup>â</sup>EIA for detection of antibodies to HIV-1 and 2. Abbott Laboratories, IL, USA.

<sup>â</sup>EIA for detection of antibodies to HIV-1 and 2 (Abbott Murex), Murex Biotech Ltd, Dartford, UK.

<sup>â</sup>Passive particle agglutination test for detection of antibodies to HIV-1 and 2 Fujirebio Inc, Tokyo, Japan.

<sup>â</sup>Western blot for detection of antibodies to HIV-1 and 2 Genelabs Diagnostics, Singapore.

<sup>â</sup>Polymerase chain reaction (PCR) for quantitative detection of HIV-1 RNA. Roche Diagnostics, Branchburg, NJ, USA.

<sup>â</sup>Signal amplification nucleic acid probe assay for quantitative detection of HIV-1 RNA. Chiron Corp Emeryville, CA, USA.

Economic advantages of ligase chain reaction for diagnosis of genital Chlamydia trachomatis infection in GUM clinic attenders

Editor,—Genital infection with Chlamydia trachomatis is highly prevalent and recognised as a major threat to public health. There is now a wealth of evidence to demonstrate the superiority of DNA amplification techniques over antigen detection and culture. Only one large study has directly compared ligase chain reaction (LCR) with enzyme immunoassay (EIA) on identical material and no studies have analysed the health economic impact of LCR in a genitourinary medicine (GUM) clinic population.

We studied the diagnostic effectiveness and cost of LCR compared with EIA.

All GUM attendees undergoing sexual health screening were offered the opportunity to participate. Men presenting with dysuria or urethral discharge were defined as symptomatic. Swabs were collected in a predetermined order from the cervix in female patients and 4–5 cm proximal to the urethral meatus in male patients. Urethral specimens in male patients were evaluated for evidence of urethritis (defined by ≥3 polymorphs per high powered field).

EIA was performed using a standard immunoassay technique (Organon Chlamydia-Tek), with confirmation of reactive tests by microdot DIF. LCR (LCX system, Abbott Laboratories) was also performed on every specimen. Specimens


testing positive by LCR alone were retested by an alternative PCR assay for DNA sequences coding for the major outer membrane protein (MOMP) of Chlamydia trachomatis. A total of 148 male and 153 female patients were tested; 23/148 (16%) swabs from male patients and 10/153 (7%) from female patients were positive for Chlamydia trachomatis by LCR (see fig 1).

The sensitivity, specificity, negative and positive predictive values, and cost/test of LCR and EIA, respectively, were 100%, 100%, 100%, 58%, 100%, 95%, 100%, and £4.05.

Of 33 cases of chlamydial infection, 15 cases (12 (92.3%) in men and two (20.0%) in women) would have remained undetected if EIA had been used alone. Although EIA tests cost less than LCR, the inferior detection rate for EIA (17 patients need to be screened per case detected) compared with LCR (nine patients screened per case detected) was also included in analysis of the results. The cost per case of chlamydial infection detected using EIA in this population was £65, compared with £50 for LCR.

In a hypothetical cohort of 100 GUM attendees, with an 11% prevalence of chlamydial infection (as in the present study), testing with EIA would cost £405 and would detect 6.4 of the 11 cases. Testing the cohort with LCR would cost £564 and detect all 11 cases. The additional cost of LCR is thus £199. The additional benefit is 4.6 additional cases detected. The additional cost of LCR per additional case detected is £34. The clinic in which the study was conducted sees 6000 new attendees annually. Had EIA been used alone, 276 cases of chlamydial infection would have been missed in a one year period, at an estimated cost of over £82,000. A full economic evaluation would require that these long term health and resource costs be more thoroughly quantified and compared with other uses of NHS resources.

In summary, this study demonstrates that the overall sensitivity of LCR was double that of EIA, the previous standard diagnostic test used. Because of its improved sensitivity and increased case detection rate, the cost of LCR per case detected is equivalent to that of EIA in an urban UK GUM clinic population. Use of LCR as the diagnostic test of choice for both screening and clinical diagnosis in this setting thus represents a cost effective strategy.

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NOTICES

International Herpes Alliance and International Herpes Management Forum
The International Herpes Alliance has introduced a website (www.herpesalliance.org) from which can be downloaded patient information leaflets. Its sister organisation the International Herpes Alliance and International Congress on Infectious Disease (ICID) in Buenos Aires.

Pan-American Health Organization, regional office of the World Health Organization
A catalogue of publications is available online (www.paho.org). The monthly journal of PAHO, the Pan American Journal of Public Health, is also available (subscriptions: pubsvc@tsp.sheridan.com).

Further details: ECEAR 2001 Conference Secretary, Division of Microbiology, NBSC, Blanch Lane, South Mimms, Potters Bar, Herts, EN6 3QG, UK.

International Congress of Sexually Transmitted Infections, 24–27 June 2001, Berlin, Germany
Further details: Congress Partner GmbH, Krausenstrasse 63, D-10117, Berlin, Germany: tel: +49-30-204 500 41; fax: +49-30-204 500 42; e-mail: berlin@cpb.de.

1st Asia Pacific Forum on Quality Improvement in Health Care
The 1st Asia Pacific Forum on Quality Improvement in Health Care will be held from 19–21 September 2001 in Sydney, Australia. Presented by the BMJ Publishing Group (London, UK) and Institute for Healthcare Improvement (Boston, USA), with the support of the Commonwealth Department of Health and Aged Care (Australia), Safety and Quality Council (Australia), NS Health (Australia) and Ministry of Health (New Zealand). Further details: quality@bma.org.uk; fax: +44 (0) 7383 8689.

41st St Andrew’s Day Festival Symposium on Therapeutics
The 41st St Andrew’s Day Festival Symposium on Therapeutics will be held on 6–7 December 2001 at the Royal College of Physicians of Edinburgh. Further details: Ms Eileen Strawn, Symposium Co-ordinator (tel: 0131 225 7324; fax: 0131 220 4393; e-mail: e.strawn@rcpe.ac.uk; website: www.rcpe.ac.uk).

10th International Congress on Behcet’s Disease will be held in Berlin 27–29 June 2002
Further details: Professor Ch Zouboulis (e-mail: zoubbere@zedat.fu-berlin.de).

5th World Congress of Perinatal Medicine, 23–27 September 2001, Palau de Congressos de Barcelona - Avda Maria Cristina s/n, Barcelona, Spain
Further details: Dr Francesc Figueras, Congress Promotion Secretary (fax: +34 93 851 74 38; www.perinatology2001.com).

Second International Conference on Sexual Health, to be held in Bangkok, Thailand on 23–28 February 2002. Calls for abstracts deadline 1 September 2001
Further details: European Secretariat, Dr Richard Burack (tel: (+44 (0) 20 8599 8029; e-mail: siamcare@aol.com).

International Conference on HIV/AIDS 16–19 December 2001, Mumbai, India
Further details: Dr Chander P Puri, President, Indian Society for Study of Reproduction and Fertility, Institute for Research in Reproduction, Jehangir Merwanji Street, Parel, Mumbai 400012, India (Tel: 413770 390, 4132111-2-4-7; fax: 091-022-496483 or 091-022-4139412; e-mail: vichin@bom4.vsnl.net.in OR dirirr@vichin.vsnl.com)

10th International Symposium on Human Chlamydial Infection, 16–21 June 2002, in Antalya, Turkey
The scientific programme will encompass the breadth of chlamydial research from clinical and epidemiological studies to molecular and cell biology of all species of Chlamydia. Further details: Professor A Demir Serter, Department of Microbiology and Infectious Diseases, Ege University, Faculty of Medicine, 35100 Bornova, Izmir, Turkey (Fax: 90 232 343 71 30; e-mail: ISHCICX@ttsa.ucsf.edu).

20th World Congress of Dermatology, Paris, 1–5 July 2002
Further details: Dr Chander P Puri, President, Indian Society for Study of Reproduction and Fertility, Institute for Research in Reproduction, Jehangir Merwanji Street, Parel, Mumbai 400012, India (Tel: 413770 390, 4132111-2-4-7; fax: 091-022-496483 or 091-022-4139412; e-mail: vichin@bom4.vsnl.net.in OR dirirr@vichin.vsnl.com)

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