All clinics should consider addressing the issue of health care for prostitutes, including local needs' assessments, inviting prostitutes to give their views of existing services, and providing appropriate training for all staff.

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2 European Working Group on HIV infection in Female Prostitutes. HIV infection in European female sex workers: Epidemiological link with use of petroleum-based lubricants. AIDS 1993;7:393-400.
4 Casey M, Day S, Ward H, Ziersch A. Sexual Health Services for Prostitutes in the UK. Europak (UK), St Mary's Hospital Medical School, London. 1995.

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Self-reported discomfort associated with use of different nonoxynol-9 spermicides

Research on the protective effect of nonoxynol-9 (N-9) spermicides against HIV infection has yielded conflicting results.1-2 It is possible that perceived genital irritation related to amount of N-9 per dose and frequency of N-9 insertion modifies the association or intervenes between N-9 use and HIV risk. Spermicide-associated discomfort can also affect the acceptability of vaginal products and the consistency of their use. We report here on self-reported genital discomfort in a study of barrier contraceptive use by couples discordant on HIV serostatus in Lusaka, Zambia.3

STD clinic attenders found to be HIV-positive brought in their regular sexual partners for testing. Both members of volunteer serodiscordant couples were counselled and instructed on the use of male condoms and spermicides. Interviews and physical examinations ensued. They were supplied with condoms and three spermicidal products. They also were given several pictorial coital logs to maintain between visits, which recorded days on which intercourse occurred and whether the barrier methods were used. The male condoms were latex silicone-lubricated devices (with no spermicide). The three spermicide products were: melting suppositories with 100 mg N-9, later supplanted by suppositories with 150 mg N-9; gel with approximately 125 mg N-9 per dose; and vaginal film with 70 mg N-9.

Participants were scheduled for clinic visits every three months, at which time physical exams and blood tests were repeated. The follow-up interview included items on problems incurred with use of the barrier products, and recorded the coital log totals. Participation continued until HIV infection, withdrawal, loss to follow-up or end of study. Physical examinations of the women used speculum visualization only, without colposcopy. Wet mounts were done to investigate vaginal infections. Genital ulcers were determined visually without culture. The follow-up interview (during clinic visits) queried women about discomfort following spermicide use.

The 109 couples in the follow-up analysis included 79 female seronegative and 30 female seropositive couples. The vaginal film was the most popular spermicide product. All women in the study used at least one of the N-9 products. Fifty-seven percent of the couples used only one of the three types of spermicide products during their participation in the study, including 20 suppository-only users, 12 gel-only users and 30 film-only users.

Nine women reported discomfort after spermicide use; four of these women had concurrent trichomoniasis and/or candidiasis at the examination visit. Discomfort was temporally associated with each of the three spermicide products. Only one female genital ulcer was recorded.

The mean rate of spermicide-associated discomfort was fairly low (<1 report per 100 woman-months) and did not differ substantially among the self-selected spermicide groups (table). The rate of self-reported discomfort was lowest among the women who used vaginal film exclusively, but the numbers are too small to be conclusive.

Regardless of which product was used, self-reported genital discomfort was rare in this study, confirming that spermicide-associated discomfort is uncommon during family planning-type use (less than once daily).4 Furthermore, women who used the film to the

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Woman-months</th>
<th>Mean insertions per month</th>
<th>Discomfort (%)</th>
<th>Rate* (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All women</td>
<td>109</td>
<td>1937</td>
<td>6-7</td>
<td>9 (8-3)</td>
<td>0.46 (0.16-0.77)</td>
</tr>
<tr>
<td>Used suppository only</td>
<td>20</td>
<td>213</td>
<td>4-4</td>
<td>2 (10-0)</td>
<td>0.94 (0.0-2.24)</td>
</tr>
<tr>
<td>Used gel only</td>
<td>12</td>
<td>159</td>
<td>7-6</td>
<td>1 (8-3)</td>
<td>0.63 (0.0-1.86)</td>
</tr>
<tr>
<td>Used film only</td>
<td>30</td>
<td>531</td>
<td>6-1</td>
<td>1 (3-3)</td>
<td>0.19 (0.0-0.56)</td>
</tr>
</tbody>
</table>

*Self-reports of discomfort per 100 woman-months; CI = confidence interval.
exclusion of the other two N-9 products had the lowest discomfort rates, consistent with the hypothesis that N-9 discomfort is related to amount of N-9 per dose. However, self-reported discomfort is not the same as, or closely correlated with, signs of irritation (epithelial disruption). Both discomfort and irritation are associated, however, with the frequency of N-9 insertion, and become common with intensive insertion schedules.  

Recent research has documented the genital effects of N-9 insertion frequency using colposcopic examinations of the vaginal and cervical epithelium, but the association, if any, between genital irritation and STD/HIV risk remains conjectural.

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