The practice of STI treatment among chemists and druggists in Pokhara, Nepal

Chemists and druggists working in “medical shops” play a significant part in the treatment of sexually transmitted infections (STIs) in resource poor countries. In some settings, chemists and druggists are consulted for first line treatment of STI symptoms more often than hospitals and clinics designed specifically to service such clients. Recent unpublished data from Pokhara, Nepal, suggest that in up to 80% of cases, treatment provided by chemists and druggists was inappropriate or incomplete. We report here on the quality of STI case management among a random sample of chemists and druggists from the 75 medical shops in Pokhara Municipality Area, Nepal.

Chemists and druggists working in all Pokhara medical shops, 65% of whom had received previous training in the national STD case management guidelines, were trained and motivated to initiate a register of all STI client visits and their treatment. Registry data from January to December 1999 were reviewed. Thirty seven registered medical shops were randomly selected for visits using the simulated client method (SCM) presenting 22 urethral discharge (UD) and 15 vaginal discharge (VD) scenarios.

Of the 6374 STI cases (68% female, 32% male), 22% presented with urethral discharge, 31% with vaginal discharge, 21% with genital ulcer disease, and 26% with pelvic inflammatory disease. Seventy per cent of clients visiting medical shops for STI treatment in Pokhara Municipality Area in 1999 were there for first line treatment—findings in agreement with a recent study conducted in Ghana, which found that over 60% of STI clients came to pharmacies without a prescription. Although positive privacy and welcoming practices make medical shops a valuable outlet for STI treatment, only onequarter of chemists and druggists in Pokhara Municipality Area correctly dispensed medication for the treatment of UD or VD. While these data do not permit analysis of whether trained versus untrained providers were better at prescribing practices, it is clear that training efforts need to be expanded and intensified to improve STI control in this region.

Acknowledgements

This study received funding from the University of Heidelberg STD/HIV Project, Kathmandu, Nepal, which is funded by the European Union (EU). We are grateful to the European Commission for STI associated syndromes (guidelines for the management of sexually transmitted infections). Geneva: WHO, 1995.

Conducting statistical analysis; PC acted as clinical advisor for the study.

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Hepatitis, syphilis, and HIV sentinel surveillance in Mongolia 1999–2000

Mongolia has undergone healthcare modifications because of political changes resulting from the dissolution of the former Soviet Union. Dramatic increases in unemployment, alcoholism, commercial sex, homelessness, and sexually transmitted infections (STIs) have occurred. There has been rapid spread of HIV infection in neighbouring countries. Mongolia also has a high prevalence of hepatitis B. Although the Mongolian ministry of
health is eager to perform surveillance for STIs, including viral hepatitis, resources for collection, storage, and testing of specimens are meagre. We evaluated the utility of a filter paper blood collection technique for determining rates of HIV, syphilis, and viral hepatitis B and C in this resource limited setting. The study was approved by the institutional review boards at the University of Alabama at Birmingham and the Mongolian ministry of health. Volunteers including commercial sex workers, itinerant traders, homeless people, and attendees at the STI clinic were sampled in Ulaanbaatar, Mongolia. All subjects completed a questionnaire and provided blood via a finger stick. Blood specimens collected as filter paper spots using Schleicher and Schuell (Keene, NH, USA) no 903 filter paper following the National Committee for Clinical Laboratory Standards protocol. Samples were dried, stored at room temperature for the duration of the 2 week visit to Mongolia, and then refrigerated upon arrival to the testing laboratory. For every blood spot, a ¼ inch disc containing about 25 µl of sample was punched out of the filter paper. Disc samples were eluted in 400 µl of phosphate buffered saline for samples to be tested for HBsAg and HCV Ab, 200 µl of specimen diluent solution for samples to be tested for HIV, or 4 µl of 0.9% saline solution for rapid plasmin reagin (RPR) and FTA-ABS tests.

A total of 393 volunteers were enrolled. The prevalence of infection using the filter paper technique was 9.9% for syphilis, 10.5% for hepatitis C, and 21.6% for chronic hepatitis B. The prevalence of hepatitis C was higher among homeless people compared to other risk groups (21.3% vs 5.2–9.7%) (table 1). For 128 volunteers with chronic hepatitis B, 86 of them (67.2%) occurred in STI clinics attendants. Eleven individuals had reactive tests for syphilis. Three individuals had repetitively reactive ELISAs for HIV, however, none was confirmed by western blot. A total of 232 volunteers (39.1%) reported use of condoms routinely. 55/593 (9.27%) had a history of blood transfusion, and 9/593 (1.59%) reported use of injecting drugs. Neither condom use, number of sexual partners, nor a history of blood transfusion were predictors of hepatitis B infection. No correlations were found between the prevalence of hepatitis C virus infection and the use of drugs or history of blood transfusions.

We found the filter paper technique for blood collection to be a reliable and useful method for serological studies in resource poor areas where blood collection and/or specimen transport may be difficult. Specimens were easily collected, stored, and transported before testing. Rates of viral hepatitis were high but rates of syphilis and HIV unexpectedly low. Future prevalence testing using this method will be able to determine trends of these communicable diseases in Mongolia.

Acknowledgements

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Contributors

IT helped design the project, organised and participated in specimen collection, performed data entry and analysis, and drafted the manuscript; MA organised and facilitated the study in Mongolia and reviewed the manuscript; SV helped design the project, reviewed data and the manuscript preparation; JWG processed laboratory specimens for HIV testing and mentored IT in same; reviewed manuscript; EHH processed laboratory specimens for syphilis testing and mentored IT in same; reviewed manuscript; JS helped design project, was the principal mentor for IT for all aspects of the project, and assisted in writing the manuscript.

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Congenital syphilis—missed opportunities for prenatal intervention

The changes in political, economic, and social life in the eastern European countries—that is, greater group mobility, substantial rise in travel activity, changes of the sexual behaviour are all related to the increased syphilis morbidity. The increased incidence of the syphilis morbidity in Bulgaria in 1999 compared with 1990—that is, 2628+378 diagnosed cases respectively, in 2000 there were 1605 cases. An increased number of syphilis patients among adults, and especially among pregnant women, reflected the growing incidence of congenital syphilis. The incidence of congenital syphilis in Bulgaria increased from one case in 1990 to 31 in 2000. This is observed as one of the most alarming trends in Bulgaria.

We report four infants with congenital syphilis—a 20 day old male infant, two male newborns, and a 2 month old female. The children were in quite a bad condition. They were presented with disseminated rash (case 4), redhemosquamous and haemorrhagic lesions and, prematurity (cases 2 and 3), thinning of the skin, oedema of the scalp in case 1, 2, and 3), and hepatitisomegaly. Case 2 had asphyxia perinatalis, bradypnoea, bradycardia, atelectases pulmonum, hypothermia, respiratory acidosis with hypoxemia, and neurological symptoms. Osteochondritis of the long bones on x ray was found in cases 1, 2, and 3. Patient 4 had purpolarisis Parrot (the roentgenogram of the upper right extremity showed typical changes in the distal metaphysis of the humerus radius (case 4), erythemosquamous and haemorrhagic (case 1), bullous and papulosquamous lesions, and prematurity (cases 2 and 3), the authors in cases 1, 2, 3), and hepatitisomegaly. Case 2 had asphyxia perinatalis, bradypnoea, bradycardia, atelectases pulmonum, hypothermia, respiratory acidosis with hypoxemia, and neurological symptoms. Osteochondritis of the long bones on x ray was found in cases 1, 2, and 3. Patient 4 had purpolarisis Parrot (the roentgenogram of the upper right extremity showed typical changes in the distal metaphysis of the humerus radius (case 4), erythemosquamous and haemorrhagic (case 1), bullous and papulosquamous lesions, and prematurity (cases 2 and 3), thinning of the skin, oedema of the scalp in case 1, 2, and 3), and hepatitisomegaly. Case 2 had asphyxia perinatalis, bradypnoea, bradycardia, atelectases pulmonum, hypothermia, respiratory acidosis with hypoxemia, and neurological symptoms.
Condom access does not ensure condom use: you’ve got to be putting me on

Approximately 15 million incident cases of sexually transmitted infections (STIs) occur in the United States each year. These figures are troubling, and the rates of primary prevention measures that sexually active people can use to avoid unprotected intercourse, including latex condoms. Although considerable attention has focused on making condoms widely available, surprisingly little research has examined whether condom availability is sufficient to ensure condom use. We recruited a convenience sample of 98 male students through advertisements posted on two Georgia university campuses to evaluate sexual risk taking behaviour. Men were required to be aged 18–29 years, full time students, and to have used condoms for ≥3 episodic vaginal intercourse. After providing informed consent, eligible men participated in a standardised interview about their experiences with condoms. The study was approved by the institutional research board of Emory University.

The 98 respondents averaged 22 years of age (SD 3). Forty six (46%) were white, 27 (28%) were African-American, five (5%) were Asian American, and two (2%) were of mixed race. Men reported a mean of 18 lifetime sex partners (median, range 1–190); 96% reported having vaginal intercourse during the previous year. Eighty five men (87%) used condoms because of concern about acquiring STIs; of these, most men were also concerned about pregnancy. However, 73 men (74%) reported having vaginal sex without a condom when they “felt one should have been used” to protect against pregnancy and infection (median lifetime number of times without condom 8; range 1–450). Among men acknowledging unsafe sex, 42 (58%) admitted ever having unprotected intercourse despite ready access to condoms “within the same room” (median 5 times; range 1–300). Overall, condoms, although readily available, were not used in more than one third (37%) of lifetime acts of intercourse where risk of pregnancy or infection was perceived (2254 acts). Reasons for men’s most recent failure to use condoms, despite accessibility, included unwillingness to interrupt foreplay (48%), fear of loss of sensation or erection (17%), and ineptitude (17%).

Among all 98 participants, 58 men (59%) also reported occasions in which they intended to use a condom, only to find that they did not have a condom with them. At the most recent occasion when condoms were not available, 34 men (58%) chose to have unprotected intercourse. The remaining 24 men (42%) elected to abstain from intercourse and instead participated in non-penetrative sexual activities posing less risk for STI acquisition, or waited until a condom could be obtained. Despite the small size and self selected nature of our population, these findings point to formidable barriers to taking “sex” at least in this heterosexual setting. Condom availability did not ensure condom use, even when condoms were needed. Similarly, the lack of availability of condoms did not deter most men from having intercourse. Avoiding sexual intercourse with an infected partner is the most effective way to prevent STIs. However, for sexually active people, condoms can only reduce the risk of infection when they are both readily available and actually put on.

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IRB approval: obtained from Emory University, October, 1993.

Conflict of interest: Neither author has a conflict of interest to disclose.

PostScript 225

References

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Resolution of the recent performance problem of Abbott LCx Chlamydia trachomatis assay. Issues of repeat testing for confirmation of chlamydial infection

In February 2001, Abbott Laboratories issued a device correction notice to users of their LCx Chlamydia trachomatis assay suggesting that initially reactive ligase chain reaction (LCR) tests should be repeated on the same sample to validate the test result. A recent alert (December 2001) from the Medical Devices Agency (MDA, DA2001(09)) indicates that the device correction is still in force and points out the resource implications where retesting is required. We offer some data on LCR performance characteristics during this period and before.

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The Department of Health pilot study on “Opportunistic screening for genital chlamydial infection in Portsmouth and Wirral” ran for a year up to October 2000. During that study, the standard adopted for reporting chlamydial infection included a repeat LCR test on all first catch urine samples that were initially LCR positive. Samples giving discrepant LCR results were further tested by Roche Cobas (PCR) polymerase chain reaction. Chlamydia LCR urine screening, with repeat LCR/PCR testing of positives, has continued in the Wirral pilot area and is also being used in other research projects locally.

Following the original device correction, we continued to carry out a repeat LCR but additionally included a PCR test on all initially positive LCR urine samples. Analysis of our data (table 1) suggests that compared to the baseline (satisfactory) performance during the Wirral pilot there was indeed a noticeable LCR reproducibility problem when the device correction notice was issued. Since then, however, the LCR performance has improved gradually to be at least as good as in the pilot period.

The MDA alert properly deals with kit performance in generating a valid test result. However, this incident also prompted us to consider the wider issues of repeat testing for chlamydial diagnosis.

We have recently also examined the reproducibility of our Roche Cobas chlamydia PCR results and are concerned to have found that of 282 initially PCR positive urine samples only 237 gave repeat PCR positive results.

We sense that there may be a mistaken view adopted by some clinicians that all nucleic acid amplification tests (NAAT) are infallible for sensitivity and specificity. It is important that patients should be made aware (as we did during the screening pilot) that no test is 100% accurate. Problems of reproducibility have been reported for both LCR and PCR.

Table 1

<table>
<thead>
<tr>
<th>Initial LCR positive (Sep–Nov 01)</th>
<th>90</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repeat LCR:</td>
<td></td>
</tr>
<tr>
<td>Positive</td>
<td>87 (96.6%)</td>
</tr>
<tr>
<td>Equivocal (0.5–0.99)</td>
<td>2 (2.2%)</td>
</tr>
<tr>
<td>Negative</td>
<td>1 (1.1%)</td>
</tr>
</tbody>
</table>

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 Clinical Microbiology and Infectious Diseases, Ege University, Faculty of Medicine, 35100 Bornova, Izmir, Turkey (fax: 90 232 343 71 36; email: lshcix@usf.edu.ca).

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 Clinical Microbiology and Infectious Diseases, Ege University, Faculty of Medicine, 35100 Bornova, Izmir, Turkey (fax: 90 232 343 71 36; email: lshcix@usf.edu.ca).

10th International Congress on Behçet’s Disease

27–29 June 2002, Berlin

Further details: Professor Ch Zouboulis (email: zoubb@meda.de).

20th World Congress of Dermatology

1–5 July 2002, Paris

Further details: P Fournier, Colloquium, 12 rue de la Croix St Faustin, 75011 Paris, France (tel: +33 1 44 64 15 15; fax: +33 1 44 64 15 16; email: p.fournier@colloquium.fr; website: www.derm-wed-2002.com).

18th Congress on Sexually Transmitted Infections

IUSTI-Europe 2002

12–14 September 2002, Vienna, Hofburg Congress Center, Chair of the Congress, Director of the European Branch of IUSTI: Angelika Stary, MD (Austria)

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