Clinical situation	Penicillin		Spectinomycin		Cephalosporins		Tetracyclines		Others		Mixed regimens	
	1982	1985	1982	1985	1982	1985	1982	1985	1982	1985	1982	1985
Heterosexual men:												
Local source, local acquisition	81	79	11	11	1	1	ı	2	4	2	4	2
Overseas source, local acquisition	47	39	44	47	2	6	0	1	2	4	4	4
Unknown source, local acquisition	76	74	13	14	1	2	i	2	5	5	3	3
Overseas acquisition	24	17	63	65	Ž	8	i	ō	3	4	6	4
Failure of primary treatment	0	i	72	70	9	12	2	Ĭ	9	8	3	5
Homosexual men:												
Local source, local acquisition	79	76	10	12	1	2	1	2	7	5	2	2
Overseas source, local acquisition	46	36	43	46	Ġ	õ	ń	ñ	á	4	<u> </u>	ā
Unknown source, local acquisition	76	70	15	17	í	á	ň	ž	6	4	2	3
Overseas acquisition	26	20	62	60	4	11	ĭ	Õ	3	4	5	5
Failure of primary treatment	0	20	69	69	10	14	2	2	8	8	4	4
Tunuit or primary troumon.	·	_	•,	•	••	• •	_	_	-	-		
Women:												
Local source, local acquisition	80	78	10	12	1	2	2	2	6	5	2	2
Overseas source, local acquisition	46	38	45	47	2	7	0	1	3	2	4	4
Unknown source, local acquisition	75	72	13	15	2	3	2	2	8	5	3	3
Overseas acquisition	28	18	61	62	4	9	1	1	4	5	5	5
Failure of primary treatment	2	2	73	70	Ź	5	2	i	8	8	5	5

^{*}Percentages of clinics using each drug as first choice in each clinical situation.

TO THE EDITOR, Genitourinary Medicine

Role of male prostitutes in spread of sexually transmitted diseases and human immunodeficiency virus

Sir.

Homosexual men are at a high risk of contracting a variety of sexually transmitted diseases (STDs), the risk depending primarily on the sexual techniques performed and the number of partners.1 Partners are mostly chosen on the basis of a voluntary non-paid relationship. Male prostitution does occur, but it is not known what role these prostitutes play in the transmission of STDs. To study this, in 1986 we approached the owners of five brothels for homosexual men in Amsterdam, four of whom agreed to co-operate. The prostitutes were informed about the nature of the study, and 37 men participated. We questioned each of them about his lifestyle and sexual variables, and a blood sample was collected for serological tests for syphilis, hepatitis B virus (HBV), and human immunodeficiency virus (HIV). We also studied 13 male prostitutes who visited our STD clinics.

The mean age of the 50 men was 22·7 (SD 4·5, range 15–38); nine were intravenous drug users and 10 used cocaine regularly; 25 men had been prostitutes for more than one year. The mean number of clients a month was 24·5 (SD 24·3) and the mean total number of partners (including clients) in the past year was 147·1 (SD 168·6). Of the 50 men, 22 men said that they were predominantly homosexual, 18 bisexual, and 10 predominantly heterosexual. Sexual tech-

niques performed with clients were independent of the prostitutes' private sexual preference, and mostly consisted of masturbation and orogenital contact, whereas anogenital and oroanal contact were practised only rarely (table).

A history of syphilis was mentioned by 11 men, and two new cases of syphilis were detected in this study by serological tests; 29 men had had gonorrhoea at least once. A positive *Treponema pallidum* haemagglution assay (TPHA) result was found in 13/50, 21/49 had antibodies to hepatitis B core antigen or to surface antigen, or both, and 4/32 had antibodies to HIV, which were confirmed by western blotting (1/4 used intravenous drugs). No correlation was found between the duration of prostitution and the presence of HBV markers, TPHA positivity, or a history of gonorrhoea. The 22 men who said that they were predominantly homosexual,

Table Sexual techniques performed with clients by 50 male prostitutes in Amsterdam

Technique	No of prostitutes performing this technique with ≥ half their clients					
Oro-oral	14					
Masturbation, active	50					
Masturbation, passive	47					
Orogenital, insertive	40					
Orogenital, receptive	40					
Anogenital, insertive	3					
Anogenital, receptive	5					
Oroanal, insertive	1					
Oroanal, receptive	6					

however, were significantly more often positive in the TPHA ($10/22 \nu 3/28$, p < 0.02) and for HBV markers ($14/21 \nu 7/28$, p < 0.01). Fisher's exact probability test was used for statistical calculations.

The number of male prostitutes in Amsterdam fluctuates during the year, but is estimated by social workers from different agencies to be a maximum of 200. Although these prostitutes say that they practise mostly low risk sexual techniques with their clients, a high proportion of these young men had markers of hepatitis B (43%), syphilis (26%), and HIV (13%). Their high risk for contracting STDs was found to depend primarily on their private sexual preferences and relationships.

The total number of homosexual men in Amsterdam is estimated at 25 000-50 000.2 It is not known what proportion of them have multiple sexual partners. Serological screening of 1627 homosexual men visiting sex saunas and bars in 1979-81 showed that 32.2% were seroreactive for syphilis,3 and in the same period 60.3% of 2946 homosexual men were found to have hepatitis B markers.1 In a recent study of 741 homosexual men 31.4% appeared to be HIV seropositive.4 Apparently the prevalence of infection in male prostitutes is no higher than in other groups of homosexual men with multiple partners. This indicates that male prostitutes do not play a special part in the spread of STDs and HIV among homosexual men in Amsterdam. The clientele of male prostitutes may, however, include a relatively high number of bisexual men who want to hide their homosexuality, and in this way male prostitution could be a bridge for 208 Correspondence

the spread of STDs and HIV into the general population.

Yours faithfully, Roel A Coutinho Ruud L M van Andel Toine J Rijsdijk

Municipal Health Service, PO Box 20244, 1000 HE Amsterdam, The Netherlands

Deference

- 1 Coutinho RA. Sexually transmitted diseases among homosexual men. Studies on epidemiology and prevention. Amsterdam: University of Amsterdam, PhD thesis. 1984. 87 pp.
- 2 Houweling H, Jager JC, Coutinho RA, Bijkerk H, Ruitenberg EJ. Epidemiologie van AIDS en HIV-infecties in Nederland; huidige situatie en prognose voor de periode 1987– 1990. Ned Tijdschr Geneeskd 1987;131: 818-24.
- 3 Lumey LH, Kok J, Coutinho RA. Screening for syphilis among homosexual men in bars and saunas in Amsterdam. British Journal of Venereal Diseases 1982;58:402-4.
- 4 Griensven GJP van, Tielman RAP, Goudsmit J, et al. Risk factors and prevalence of HIV antibodies in homosexual men in the Netherlands. Am J Epidemiol 1987;125:1048-57.

Book reviews

Bacterial vaginosis. By W I van der Meijden. (Pp 121; Dfl 35.) The Netherlands: Van Gorcum, 1987.

This book, described by the author as a "thesis", consists essentially of a series of seven separate papers with introductory and concluding chapters. It is therefore difficult to read as a text on bacterial vaginosis and will be of limited value to those wanting to learn more about this condition. As most of the chapters have to stand on their own there is much repetition, which is disconcerting but probably unavoidable with this format.

If one then evaluates this book as a research document there will be disappointment. I can find very little that is original or adds to our knowledge of this perplexing condition. The main message that comes across is the author's desire to have bacterial vaginosis renamed "clue cell positive discharge". Much of the data produced, however, refers to a reasonable population size and is well presented. Thus those wishing to pursue further research may find some aspects helpful, though important questions—such as the origin of bacterial vaginosis and its relation to sexual intercourse—still remain unanswered.

R S Pattman

Sexually transmitted diseases. Edited by A E

Jephcott. (Pp 87; £10.) London: Public no other speciality (than genitourinary Health Laboratory Service, 1987.

Dr Jephcott states in his introduction "in no other speciality (than genitourinary medicine) does the clinician rely so heavily

This is a Public Health Laboratory Service publication that deals essentially with the laboratory diagnosis of some of the commoner infections seen in genitourinary medicine clinics.

In the introduction the contents are described as being a "practical guide to the techniques which are available at present. and should assist laboratory managers in assessing the current status of various techniques and their relevance to clinicians treating their patients." It is pleasant to see this different approach, although I am not certain which of the two targeted groups will derive the most benefit. Much information is provided about the precise ingredients of growth and transport media coupled with other technical laboratory detail, about which I am not competent to comment and therefore cannot assess its value to the laboratory worker. Writing as a clinician in these times of stringent budgetary control I am disappointed that financial matters, such as the cost of reagents and the degree of labour involved, are not detailed. Regrettably, when managing a clinic and having to choose between certain available screening tests these factors have to be considered.

The book deals with syphilis, gonorrhoea, Chlamvdia trachomatis infections, anaerobic vaginosis, genital herpes, hepatitis and infections with retroviruses including human immunodeficiency virus (HIV), and finally chancroid. There are therefore some obvious omissions. The applied clinical content throughout the book is sound, but I have some minor quibbles. Although enzyme linked immunoassays (ELISAs) for syphilis are not yet routinely available, a brief comment would have been useful. High blind vaginal swabs are listed without qualification alongside visualised cervical swabs for the diagnosis of gonorrhoea—sacrilege to the genitourinary physician! As a clinician wanting to use the laboratory properly, I am most disappointed that the comparative value of cell culture, direct immunofluorescence, and antigen detection by immunological assay are not examined more closely, particularly regarding the widely reported lower specificity of the immunological assay and its failure to diagnose rectal infection accurately. The chapter of most practical benefit to the clinician is on hepatitis and retroviruses, and it does attempt to address the question of cost. However, it contains the bizarre statement that "another cause of glandular fever is the AIDS virus (HIV)", which I can only assume is a printing error.

Dr Jephcott states in his introduction "in no other speciality (than genitourinary medicine) does the clinician rely so heavily on the microbiology laboratory or (does) the quality of treatment offered to the patient depend so greatly on the service it provides." I heartily endorse this statement, and it behoves the conscientious clinician to have some knowledge of the laboratory techniques used. With minor reservations I commend this book to the genitourinary physician, and especially to those in training.

The book is priced at £10 (including postage) cash with order, from PHLS Supplies, 61 Colindale Avenue, London NW9 5DF, England.

R S Pattman

Living with AIDS and HIV. By D Miller. (Pp 136; £20 hard back, £7.95 paperback.) Basingstoke: MacMillan Press, 1987.

This book is described as a practical manual for people with AIDS and for those who are human immunodeficiency virus (HIV) antibody positive, as well as for their carers and counsellors. It is divided into seven chapters, which deal with the virus and its spread, the clinical manifestations of HIV, coming to terms with the diagnosis, practical adjustments, psychological adjustments, relationship adjustments, and a final summary.

The first two chapters provide a very readable introduction to the condition, which is suitable not only for people with the virus but also for carers and counsellors. The chapter on practical adjustments is very useful, but it is naturally restricted by the author's experience. For instance, advice for drug misusers occupied some 21 lines compared with four and a half pages for safe sex. Important omissions were the problems of dealing with antibody positive children and pregnancies, contraception, social security benefits, and practical advice about simple cheap healthy eating. On the whole, however, I think that these are fairly minor omissions and they in no way detract from the overall usefulness of the book.

The largest chapter in the book is devoted to psychological adjustments and covers problems such as stress, anxiety, depression, obsessive states, and how to cope with these problems. There is a chapter devoted to relationship adjustment, which I think is of value irrespective of sexuality.

All in all I think that this is an excellent book, which fulfils its aim of being a practical manual to patients infected with HIV as well as to their carers and counsellors. I would thoroughly recommend it.

R P Brettle