Secondly, a travel history is important. The cases identified in the reports from Manchester and Liverpool[13 14] were associated with travel to countries where chancroid is endemic. If lessons are to be learnt from recent experience in the United States where there was a significant association between outbreaks of syphilis, chancroid, and the use of crack cocaine, a high index of suspicion for chancroid is justified for genital ulcers in Afro-Caribbeans given their connection in the Bristol syphilis outbreak and the known endemicity of both syphilis and chancroid in the Caribbean.[20] Also, travellers or recent immigrants with genital ulcers from southern African countries, where the United Kingdom still has close Commonwealth ties, should be considered to be at risk of chancroid, particularly if there is a history of unprotected commercial sex.

Because of its importance in facilitating heterosexual HIV transmission, opportunities to improve surveillance for chancroid should be sought. The KC 60 coding system is due to undergo revision soon and it would surely not be a retrograde step to revert to the pre-1989 system whereby chancroid was reported under the C1 coding, LGV as C2, and donovanosis as C3.

Ideally, patients with chancroid and their sexual contacts are best treated at their first attendance. Currently the most cost effective options are either a single dose of ciprofloxacin 500 mg or erythromycin 500 mg three times daily for 7 days.[21] However, if it is thought expedient to try and confirm the diagnosis of chancroid by culture, it may be necessary to bring patients back when suitable culture media are available.

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1 Plummer FA, Simonsen JN, Cameron DW, *et al.* Co-factors in male-female sexual transmission of human immunodeficiency virus type 1. *J Infect Dis* 1991;**163**:233–9.
2 Cameron DW, Simonsen JN, D'Costa L, *et al.* Female to male transmission of human immunodeficiency virus type 1: risk factors for seroconversion in men. *Lancet* 1989;ii:403–7.
3 Telzak EE, Chaisson MA, Bevier PJ, *et al.* HIV-1 seroconversion in patients with and without genital ulcer disease. *Ann Intern Med* 1993;**119**:1181–6.
4 Mertz KJ, Weiss JB, Webb RM, *et al.* An investigation of genital ulcers in Jackson, Mississippi, with use of a multiplex polymerase chain reaction assay: high prevalence of chancroid and human immunodeficiency virus infection. *J Infect Dis* 1998;**178**:1060–6.
5 Hammond GW, Slutchuk M, Scatliff J, *et al.* Epidemiologic, clinical, laboratory and therapeutic features of an urban outbreak of chancroid in North America. *Rev Infect Dis* 1980;**2**:867–79.
6 Blackmore CA, Limpakarnjanarat K, Rigau-erez JG, *et al.* An outbreak of chancroid in Orange County, California: descriptive epidemiology and disease- control measures. *J Infect Dis* 1985;**151**:840–4.
7 DiCarlo RP, Armentor BS, Martin DH. Chancroid epidemiology in New Orleans men. *J Infect Dis* 1995;**172**:446–52.
8 Martin DH, DiCarlo RP. Recent changes in the epidemiology of genital ulcer disease in the United States. *Sex Transm Dis* 1994;**21(Suppl 2)**:S76–80.
9 Mertz KJ, Trees D, Levine WC, *et al.* Etiology of genital ulcers and prevalence of human immunodeficiency virus coinfection in 10 US cities. *J Infect Dis* 1998;**178**:1795–8.
10 Communicable Diseases Surveillance Centre. GUM clinic returns on forms SBH 60 1971–1988 (Qtr 1) and KC 60 (1988 (Qtr 2) to 1998. New diagnoses, selected conditions by sex.
11 Department of Health. New cases seen at genito-urinary medicine clinics 1987. Summary Information from SBH 60.
12 Kinghorn GR, Hafiz S, McEntegart MG. Pathogenic microbial flora of genital ulcers in Sheffield with particular reference to herpes simplex virus and Haemophilus ducreyi. *Br J Vener Dis* 1982;**58**:377–80.
13 Mallard RH, Macauley ME, Riordan R, *et al.* Haemophilus ducreyi infection in Manchester. *Lancet* 1983;ii:283.
14 Arya OP, Cupit P, Dundon MB, *et al.* Chancroid in Liverpool. *Genitourin Med* 1988;**64**:66.
15 Hafiz A, McEntegart MG, Kinghorn GR. Sheffield medium for cultivation of Haemophilus ducreyi. *Br J Vener Dis* 1984;**60**:196–8.
16 MacDonald K, Cameron DW, Irungu G, *et al.* Comparison of Sheffield media with standard media for the isolation of Haemophilus ducreyi. *Sex Transm Dis* 1989;**16**:88–90.
17 Battu VR, Horner PJ, Taylor PK, *et al.* Locally acquired heterosexual outbreak of syphilis in Bristol. *Lancet* 1997;**350**:1100–1.
18 Plummer FA, D'Costa LJ, Nsanze H, *et al.* Epidemiology of chancroid and Haemophilus ducreyi in Nairobi, Kenya. *Lancet* 1983;ii:1293–5.
19 Hawkes S, West B, Wilson S, *et al.* Asymptomatic carriage of Haemophilus ducreyi confirmed by the polymerase chain reaction. *Genitourin Med* 1995; **71**:224–7.
20 Behets FM, Braithwaite A, Hylton-Kong T, *et al.* Genital ulcers:etiology, clinical diagnosis, and associated human immunodeficiency virus infection in Kingston, Jamaica. *Clin Infect Dis* 1999;**28**:1086–90.
21 Malonza IM, Tyndall MW, Ndinya-Achola J, *et al.* A randomised, double-blind, placebo-controlled trial of single-dose ciprofloxacin versus erythromycin for the treatment of chancroid in Nairobi, Kenya. *J Infect Dis* 1999;**180**:1886–93.

The COPE Report 1999

Hitherto, there has been a lack of a coordinated approach by editors of scientific and medical journals to breaches of research and publication ethics. The publication in this issue of the journal of the guidelines on good publication practice developed by the Committee on Publication Ethics (COPE) is therefore most welcome. Consensus has been reached on what constitutes good research and the guidelines on study design, ethical approval, and data analysis are sensible and clear. In any case, all researchers should already follow these principles. For many years, there has been controversy on authorship, and guidance is given on avoidance of conflict over this issue. The duty of all authors to take public responsibility for the content of their paper is rightly emphasised. Conflicts of interest are not confined to the authors of papers, and editors and reviewers must ensure that any relevant conflict of interest is disclosed; again sound guidance is given in the report. Guidelines are also available on peer review and greater transparency by journals of their review, selection, and appeal processes is suggested. Ultimately, this can only benefit authors. Plagiarism and redundant publication are issues with which editors are only too familiar and, in some cases, these unethical practices can be difficult to identify. Advice to authors on how to avoid possible misconduct is given in the report. Most editors are well aware of their duties, but it is good to see these defined here. The mass media are becoming much more concerned with biomedical research, and the guidelines on media relations are timely.

Unfortunately, breaches of research and publication ethics occur, and there have been several recent, celebrated cases. It is clear that the authors of the report have given much thought to some of the thorny issues surrounding the investigation of suspected breaches, and their guidance to editors is very clear. The mechanism for implementation of the guidelines for dealing with serious misconduct, however, is not entirely clear. For example, there does not appear to be a forum for the author(s) suspected of misconduct to rescind the allegations. With the possible grave consequences of an investigation of this nature, future refinements to the guidelines may be required.

As a former editor of the journal, I would have greatly appreciated access to guidelines such as these when considering difficult issues, and I feel that all editors should endorse this report.

ALEXANDRA McMILLAN

Journal ombudsman

Committee on Publication Ethics: the COPE Report 1999

Guidelines on good publication practice

Why the guidelines were developed

COPE was founded in 1997 to address breaches of research and publication ethics. A voluntary body providing a discussion forum and advice for scientific editors, it aims to find practical ways of dealing with the issues, and to develop good practice.

We thought it essential to attempt to define best practice in the ethics of scientific publishing. These guidelines should be useful for authors, editors, editorial board members, readers, owners of journals, and publishers.

Intellectual honesty should be actively encouraged in all medical and scientific courses of study, and used to inform publication ethics and prevent misconduct. It is with that in mind that these guidelines have been produced.

Details of other guidelines on the ethics of research and published codes of conduct are listed in the Appendix.

How the guidelines were developed

The guidelines were developed from a preliminary version drafted by individual members of the committee, which was then submitted to extensive consultation. They address: study design and ethical approval, data analysis, authorship, conflict of interests, the peer review process, redundant publication, plagiarism, duties of editors, media relations, advertising, and how to deal with misconduct.

What they aim to do

These guidelines are intended to be advisory rather than prescriptive, and to evolve over time. We hope that they will be disseminated widely, endorsed by editors, and refined by those who use them.

1 Study design and ethical approval
2 Data analysis
3 Authorship
4 Conflicts of interest
5 Peer review
6 Redundant publication
7 Plagiarism
8 Duties of editors
9 Media relations
10 Advertising
Dealing with misconduct
Appendix

Acknowledgement

The following are gratefully acknowledged for their contribution to the drafting of these guidelines: Philip Fulford (Coordinator), Professor Michael Doherty, Ms Jane Smith, Dr Richard Smith, Dr Fiona Godlee, Dr Peter Wilmshurst, Dr Richard Horton, Professor Michael Farthing, Other members of COPE, Delegates to the meeting on April 27 1999, other corresponding editors.

1 Study design and ethical approval

Definition

Good research should be well justified, well planned, appropriately designed, and ethically approved. To conduct research to a lower standard may constitute misconduct.

Action

1 Laboratory and clinical research should be driven by protocol; pilot studies should have a written rationale.
2 Research protocols should seek to answer specific questions, rather than just collect data.
3 Protocols must be carefully agreed by all contributors and collaborators, including, if appropriate, the participants.
4 The final protocol should form part of the research record.
5 Early agreement on the precise roles of the contributors and collaborators, and on matters of authorship and publication, is advised.
6 Statistical issues should be considered early in study design, including power calculations, to ensure there are neither too few nor too many participants.
7 Formal and documented ethical approval from an appropriately constituted research ethics committee is required for all studies involving people, medical records, and anonymised human tissues.
8 Use of human tissues in research should conform to the highest ethical standards, such as those recommended by the Nuffield Council on Bioethics.
9 Fully informed consent should always be sought. It may not always be possible, however, and in such circumstances, an appropriately constituted research ethics committee should decide if this is ethically acceptable.
10 When participants are unable to give fully informed consent, research should follow international guidelines, such as those of the Council for International Organisations of Medical Sciences (CIOMS).
11 Animal experiments require full compliance with local, national, ethical, and regulatory principles, and local licensing arrangements. International standards vary.
12 Formal supervision, usually the responsibility of the principal investigator, should be provided for all research projects: this must include quality control, and the frequent review and long term retention (may be up to 15 years) of all records and primary outputs.

2 Data analysis

Definition

Data should be appropriately analysed, but inappropriate analysis does not necessarily amount to misconduct. Fabrication and falsification of data do constitute misconduct.

Action

1 All sources and methods used to obtain and analyse data, including any electronic pre-processing, should be fully disclosed; detailed explanations should be provided for any exclusions.
2 Methods of analysis must be explained in detail, and referenced, if they are not in common use.
3 The post hoc analysis of subgroups is acceptable, as long as this is disclosed. Failure to disclose that the analysis was post hoc is unacceptable.
4 The discussion section of a paper should mention any issues of bias which have been considered, and explain how they have been dealt with in the design and interpretation of the study.

3 Authorship

Definition

There is no universally agreed definition of authorship, although attempts have been made (see Appendix). As a minimum, authors should take responsibility for a particular section of the study.

Action

1 The award of authorship should balance intellectual contributions to the conception, design, analysis and writing of the study against the collection of data and other routine work. If there is no task that can reasonably be attributed to a particular individual, then that individual should not be credited with authorship.
2 To avoid disputes over attribution of academic credit, it is helpful to decide early on in the planning of a research project who will be credited as authors, as contributors, and who will be acknowledged.
3 All authors must take public responsibility for the content of their paper. The multidisciplinary nature of much research can make this difficult, but this can be resolved by the disclosure of individual contributions.
4 Careful reading of the target journal's "Advice to authors" is advised, in the light of current uncertainties.

4 Conflicts of interest

Definition

Conflicts of interest comprise those which may not be fully apparent and which may influence the judgment of author, reviewers, and editors.

They have been described as those which, when revealed later, would make a reasonable reader feel misled or deceived.

They may be personal, commercial, political, academic or financial.

"Financial" interests may include employment, research funding, stock or share ownership, payment for lectures or travel, consultancies and company support for staff.

Action

1 Such interests, where relevant, must be declared to editors by researchers, authors, and reviewers.
2 Editors should also disclose relevant conflicts of interest to their readers. If in doubt, disclose. Sometimes editors may need to withdraw from the review and selection process for the relevant submission.

5 Peer review

Definition

Peer reviewers are external experts chosen by editors to provide written opinions, with the aim of improving the study.

Working methods vary from journal to journal, but some use open procedures in which the name of the reviewer is disclosed, together with the full or "edited" report.

Action

1 Suggestions from authors as to who might act as reviewers are often useful, but there should be no obligation on editors to use those suggested.
2 The duty of confidentiality in the assessment of a manuscript must be maintained by expert reviewers, and this extends to reviewers' colleagues who may be asked (with the editor's permission) to give opinions on specific sections.
3 The submitted manuscript should not be retained or copied.
4 Reviewers and editors should not make any use of the data, arguments, or interpretations, unless they have the authors' permission.
5 Reviewers should provide speedy, accurate, courteous, unbiased and justifiable reports.
6 If reviewers suspect misconduct, they should write in confidence to the editor.
7 Journals should publish accurate descriptions of their peer review, selection, and appeals processes.
8 Journals should also provide regular audits of their acceptance rates and publication times.

6 Redundant publication

Definition

Redundant publication occurs when two or more papers, without full cross reference, share the same hypothesis, data, discussion points, or conclusions.

Action

1 Published studies do not need to be repeated unless further confirmation is required.
2 Previous publication of an abstract during the proceedings of meetings does not preclude subsequent submission for publication, but full disclosure should be made at the time of submission.
3 Re-publication of a paper in another language is acceptable, provided that there is full and prominent disclosure of its original source at the time of submission.
4 At the time of submission, authors should disclose details of related papers, even if in a different language, and similar papers in press.

7 Plagiarism

Definition

Plagiarism ranges from the unreferenced use of others' published and unpublished ideas, including research grant applications to submission under "new" authorship of a complete paper, sometimes in a different language.

It may occur at any stage of planning, research, writing, or publication: it applies to print and electronic versions.

Action

1 All sources should be disclosed, and if large amounts of other people's written or illustrative material is to be used, permission must be sought.

8 Duties of editors

Definition

Editors are the stewards of journals. They usually take over their journal from the previous editor(s) and always want to hand over the journal in good shape.

Most editors provide direction for the journal and build a strong management team. They must consider and balance the interests of many constituents, including readers, authors, staff, owners, editorial board members, advertisers and the media.

Action

1 Editors' decisions to accept or reject a paper for publication should be based only on the paper's importance, originality, and clarity, and the study's relevance to the remit of the journal.
2 Studies that challenge previous work published in the journal should be given an especially sympathetic hearing.
3 Studies reporting negative results should not be excluded.
4 All original studies should be peer reviewed before publication, taking into full account possible bias due to related or conflicting interests.
5 Editors must treat all submitted papers as confidential.
6 When a published paper is subsequently found to contain major flaws, editors must accept responsibility for correcting the record prominently and promptly.

9 Media relations

Definition

Medical research findings are of increasing interest to the print and broadcast media.

Journalists may attend scientific meetings at which preliminary research findings are presented, leading to their premature publication in the mass media.

Action

1 Authors approached by the media should give as balanced an account of their work as possible, ensuring that they point out where evidence ends and speculation begins.
2 Simultaneous publication in the mass media and a peer reviewed journal is advised, as this usually means that enough evidence and data have been provided to satisfy informed and critical readers.
3 Where this is not possible, authors should help journalists to produce accurate reports, but refrain from supplying additional data.
4 All efforts should be made to ensure that patients who have helped with the research should be informed of the results by the authors before the mass media, especially if there are clinical implications.
5 Authors should be advised by the organisers if journalists are to attend scientific meetings.
6 It may be helpful to authors to be advised of any media policies operated by the journal in which their work is to be published.

10 Advertising

Definition

Many scientific journals and meetings derive significant income from advertising.

Reprints may also be lucrative.

Action

1 Editorial decisions must not be influenced by advertising revenue or reprint potential: editorial and advertising administration must be clearly separated.
2 Advertisements that mislead must be refused, and editors must be willing to publish criticisms, according to the same criteria used for material in the rest of the journal.
3 Reprints should be published as they appear in the journal unless a correction is to be added.

Dealing with misconduct

1 Principles

1 The general principle confirming misconduct is intention to cause others to regard as true that which is not true.
2 The examination of misconduct must therefore focus, not only on the particular act or omission, but also on the intention of the researcher, author, editor, reviewer or publisher involved.
3 Deception may be by intention, by reckless disregard of possible consequences, or by negligence. It is implicit, therefore, that "best practice" requires complete honesty, with full disclosure.
4 Codes of practice may raise awareness, but can never be exhaustive.

2 Investigating misconduct

1 Editors should not simply reject papers that raise questions of misconduct. They are ethically obliged to pursue the case. However, knowing how to investigate and respond to possible cases of misconduct is difficult.
2 COPE is always willing to advise, but for legal reasons, can only advise on anonymised cases.
3 It is for the editor to decide what action to take.

3 Serious misconduct

1 Editors must take all allegations and suspicions of misconduct seriously, but they must recognise that they do not usually have either the legal legitimacy or the means to conduct investigations into serious cases.
2 The editor must decide when to alert the employers of the accused author(s).
3 Some evidence is required, but if employers have a process for investigating accusations—as they are increasingly required to do—then editors do not need to assemble a complete case. Indeed, it may be ethically unsound for editors to do so, because such action usually means consulting experts, so spreading abroad serious questions about the author(s).
4 If editors are presented with convincing evidence—perhaps by reviewers—of serious misconduct, they should immediately pass this on to the employers, notifying the author(s) that they are doing so.
5 If accusations of serious misconduct are not accompanied by convincing evidence, then editors should confidentially seek expert advice.
6 If the experts raise serious questions about the research, then editors should notify the employers.
7 If the experts find no evidence of misconduct, the editorial processes should proceed in the normal way.
8 If presented with convincing evidence of serious misconduct, where there is no employer to whom this can be referred, and the author(s) are registered doctors, cases can be referred to the General Medical Council.
9 If, however, there is no organisation with the legitimacy and the means to conduct an investigation, then the editor may decide that the case is sufficiently important to warrant publishing something in the journal. Legal advice will then be essential.
10 If editors are convinced that an employer has not conducted an adequate investigation of a serious accusation, they may feel that publication of a notice in the journal is warranted. Legal advice will be essential.
11 Authors should be given the opportunity to respond to accusations of serious misconduct.

4 Less serious misconduct

1 Editors may judge that it is not necessary to involve employers in less serious cases of misconduct, such as redundant publication, deception over authorship, or failure to declare conflict of interest. Sometimes the evidence may speak for itself, although it may be wise to appoint an independent expert.
2 Editors should remember that accusations of even minor misconduct may have serious implications for the author(s), and it may then be necessary to ask the employers to investigate.
3 Authors should be given the opportunity to respond to any charge of minor misconduct.
4 If convinced of wrongdoing, editors may wish to adopt some of the sanctions outlined below.

5 Sanctions

Sanctions may be applied separately or combined. The following are ranked in approximate order of severity:

1 A letter of explanation (and education) to the authors, where there appears to be a genuine misunderstanding of principles.
2 A letter of reprimand and warning as to future conduct.
3 A formal letter to the relevant head of institution or funding body.
4 Publication of a notice of redundant publication or plagiarism.
5 An editorial giving full details of the misconduct.
6 Refusal to accept future submissions from the individual, unit, or institution responsible for the misconduct, for a stated period.
7 Formal withdrawal or retraction of the paper from the scientific literature, informing other editors and the indexing authorities.

8 Reporting the case to the General Medical Council, or other such authority or organisation which can investigate and act with due process.

Appendix

The Association of the British Pharmaceutical Industry. *Facilities for non-patient volunteer studies*. London: APBI, 1989.

The Association of the British Pharmaceutical Industry. *Guidelines for medical experiments in non-patient human volunteers*. London: ABPI, 1990.

ABPI fact sheets and guidance notes:

Clinical trials and compensation guidelines, January 1991.

Guidelines for phase IV clinical trials, September 1993.

Guidelines on the conduct of investigator site audits, January 1994.

Relationship between the medical profession and the pharmaceutical industry, June 1994.

Good clinical trial practice, November 1995.

Patient information and consents for clinical trials, May 1997.

Guidelines on the structure of a formal agreement to conduct sponsored clinical research, July1998.

Good clinical research practice, July 1998.

Council for International Organisations of Medical Sciences (CIOMS). *International Guidelines for Ethical Review of Epidemiological Studies*. Geneva: WHO, 1991.

General Medical Council. Good medical practice guidelines series:

Consent, February 1999.

Confidentiality, October 1995.

Transplantation of organs from live donors, November 1992.

International Committee of Medical Journal Editors (ICMJE). Uniform requirements for manuscripts submitted to biomedical journals. *JAMA* 1997;**277**:927–34.

Medical Research Council. *Policy and procedure for inquiring into allegations of scientific misconduct*. London: MRC, 1997.

Medical Research Council. *The ethical conduct of research on the mentally incapacitated.* London: MRC, 1991.

Medical Research Council. *The ethical conduct of research on children.* London: MRC, 1991.

Medical Research Council. *Responsibility in the use of animals in medical research*. London: MRC, 1993.

Medical Research Council. *Responsibility in the use of personal medical information for research. Principles and guidelines to practice*. London: MRC, 1985.

Medical Research Council. *MRC Guidelines for good clinical practice in clinical trials.* London: MRC, 1998.

Medical Research Council. *Principles in the assessment and conduct of medical research and publicising results*. London: MRC, 1995.

Nuffield Council on Bioethics. *Human tissue: ethical and legal issues*. London: Nuffield Council on Bioethics, 1995.

Royal College of Physicians. *Research involving patients*. London: RCP, 1990.

LETTERS TO THE EDITOR

Carbamazepine in Reiter's syndrome

EDITOR,—A psoriatic spectrum with Reiter's syndrome as the most severe manifestation occurs with greater frequency in HIV infected individuals.[1] Immunosuppressive therapies for RS are associated with a poor response and increased morbidity.[2] We describe a case where carbamazepine showed an excellent response in an HIV infected patient with Reiter's syndrome.

A 30 year old married man presented with erythematous papules and plaques of 2 months' duration covered with hard limpet-like scales on face, body, and both extremities (fig 1). Palms and soles showed keratoderma blenorrhagicum and subungual hyperkeratosis with distal onycholysis. Both knees and wrists had painful swelling with restriction of movements. With this clinical presentation Reiter's syndrome was inferred. All routine investigations were normal except a raised erythrocyte sedimentation rate of 100 mm in the first hour. *x* Rays of the affected joints were normal. ELISA for HIV-1 and HIV-2 was positive with two kits (Immunocomb, Tri-dot) and confirmed with western blotting technique (Speciality Ranbaxy Limited). The absolute helper T lymphocyte count was 435 cells $\times 10^6$/l. Human leucocyte antigen B27 and rheumatoid factor were negative. The patient was commenced on prednisolone by mouth 60 mg daily and indomethacin by mouth 25 mg three times daily without any concomitant antiretroviral therapy. New erythematous papules and plaques appeared with no relief in joint pain and swelling.

In seeking an effective treatment, we serendipitously came across the efficacy of carbamazepine in an HIV infected patient with psoriatic erythroderma.[3] We started carbamazepine 200 mg daily in two divided doses in addition to above. The erythema cleared rapidly within 7 days. To confirm the effect of carbamazepine, it was stopped. New lesions similar to the old ones appeared within 3–4 days. Carbamazepine was then reintroduced in the same dose. Erythema cleared again within 7 days followed by scaling and joint swelling and pain. New lesions stopped appearing. Prednisolone was then tapered off rapidly and analgesics were stopped. Carbamazepine was continued in the same dose for 6 months. On follow up at 1 year, the patient showed no recurrence of skin lesions and synovitis, no change in liver and renal function tests, with no further deterioration in his overall health and no opportunistic infections.

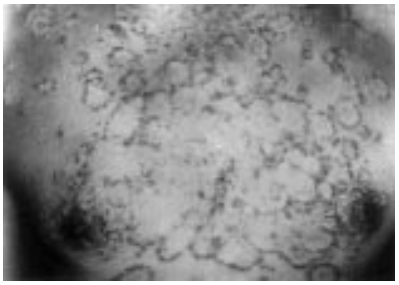

Figure 1 Close view of erythematous annular papules and plaques on chest before carbamazepine therapy.

It has been proposed that in genetically predisposed people, the release of neuropeptides like substance P, calcitonin gene related peptide, vasoactive intestinal peptide, and the inflammatory leucotriene B4 from cutaneous sensory nerves causes local inflammatory responses that trigger psoriasis.[4] Stimulated mast cells secrete a number of proinflammatory cytokines and proteases that act similarly.[4 5]

Carbamazepine significantly inhibits the uptake of noradrenaline (norepinephrine) and blocks a cyclic AMP mediated calcium influx that is associated with neuropeptide release and control of a slow potassium current.[6]

The rapid clearing of erythema, secondary to raised levels of neuropeptides, with carbamazepine may have been mediated through inhibition of these neuropeptides and by inhibition of uptake of noradrenaline. The exacerbation and subsequent resolution of lesions on withdrawal and reinstitution of carbamazepine respectively proves its efficacy in our patient. Also, the clinical remission maintained for 1 year after stopping carbamazepine confirms its therapeutic role in Reiter's syndrome. The therapeutic response seen in our patient conforms to that seen in the HIV-1 positive patient of Smith *et al*.[3]

This apparent success adds carbamazepine to the armamentarium against Reiter's syndrome in an HIV infected patient. This is the first reported case and an evaluation of long term carbamazepine therapy is warranted.

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1 Duvic M, Crane M, Conant M, *et al*. Zidovudine improves psoriasis in human immunodeficiency virus-positive males. *Arch Dermatol* 1994;**130**:447–51.
2 Johnson T, Duvic M, Rapini R. Acquired immunodeficiency syndrome exacerbates psoriasis. *N Engl J Med* 1985;**313**:1415.
3 Smith K, Decker C, Yeager J, *et al.* Therapeutic efficacy of carbamazepine in a HIV-1-positive patient with psoriatic erythroderma. *J Am Acad Dermatol* 1997;**37**:851–4.
4 Farber E, Bright R, Nall M. Psoriasis: a questionnaire survey of 1144 patients. *Arch Dermatol* 1968;**98**:248–50.
5 Farber E, Nickoloff B, Recht B. Stress, symmetry and psoriasis possible role of neuropeptides. *J Am Acad Dermatol* 1986;**14**:305–11.
6 Woodbury D, Penry J, Pippenger C. *Antiepileptic drugs.* New York: Raven Press, 1982:453–547.

Accepted for publication 20 March 2000

Condoms and warts

EDITOR,—Wen *et al*[1] should be applauded for their attempt to address the key question of whether or not condoms protect people from genital warts. However, some of the major study variables need clarifying, as they did not match up with my knowledge of the Sydney Sexual Health Centre (SSHC) database.

The article discussed the issue of "acquisition of genital warts" and was presented as an incidence study. Cases were defined as: "All patients with a new diagnosis of macroscopic genital warts who attended SSHC [in] 1996." However, many of these patients had been previously diagnosed with genital warts elsewhere while others had recurrent lesions. In Australia, most genital warts are managed by general practitioners.[2] Consequently, the experience of specialist services is biased towards recurrent and difficult cases. "New diagnosis" in this situation means new to the clinic but not necessarily new to the patient. This means that the main outcome measure was a mixture of incident, prevalent, and recurrent cases, with the possibility that the warts may have affected the behaviour of many of the study subjects.

The SSHC database does document whether a person has previously been diagnosed with HPV infection. To me, the study would have had more validity if patients with a past history had been excluded.

The diagnostic grouping for warts at SSHC does not distinguish between genital and anal lesions. The readers of the journal need to know that many of these male "genital wart" cases would have been homosexually active men with anal warts. This is important as risk factors for penile and anal warts may differ, potentially confusing the results of the present study.

Originally developed as an HIV risk measure, the condom use variable at SSHC only refers to the previous 3 months or since the last registration/disease episode. Wen *et al*'s article[1] failed to mention that this variable was time limited. As 3 months is the median duration before the appearance of exophytic warts,[3] up to half of the relevant sexual behaviour may have been overlooked.

Finally, the referent group in the table describing condom use deemed as "Not applicable, no sex" should have been more accurately described as "No vaginal or anal sex in the previous 3 months." Many of these people would have practised oral sex or other sexual acts during those 3 months. Others may have ceased practising vaginal or anal intercourse up to 3 months earlier because of their persistent or recurrent warts.

Large relational quality assured clinical databases can be powerful tools for health service evaluation, surveillance, and the generation of research questions. It may be prudent for researchers to engage the people responsible for designing and maintaining those databases to minimise errors of interpretation.

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1 Wen LM, Estcourt CS, Simpson JM, *et al.* Risk factors for the acquisition of genital warts: are condoms protective? *Sex Transm Inf* 1999;**75**:312–6.
2 Temple-Smith M, Keogh L, Mulvey G. Testing for chlamydia and other sexually transmissible diseases in general practice in Victoria. *Venereology* 1997;**10**:14–18.
3 Oriel JD. Natural history of genital warts. *Br J Vener Dis* 1971;**47**:1–13. Accepted for publication 20 March 2000

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Reply

EDITOR,—We are grateful to Dr Dayan for her helpful and constructive comments. The major criticism of our paper relates to the selection of cases, and the possible inclusion

of prevalent and recurrent cases as well incident cases. However, our concern with this possible bias at the outset of the study led us to exclude all patients with a history of previous genital warts. This included those previously diagnosed at SSHC, and those who gave a history of having their warts managed elsewhere. Consequently, when we state a new diagnosis of genital warts, this is precisely what we mean.

With regard to the conduct of the study, this was performed with the assistance of the current data manager responsible for the SSHC data base, whose help and assistance were duly acknowledged.

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Photosensitivity reaction to efavirenz

EDITOR,—The non-nucleoside reverse transcriptase inhibitor (NNRTI) efavirenz is a recent addition to the armamentarium available to physicians in the treatment of HIV infection. However, at present the known side effect profile of this new agent is still in its infancy. We would like to report a case of photosensitivity associated with efavirenz.

A 27 year old white homosexual man was commenced on combivir (zidovudine/lamivudine) and efavirenz in March of 1999. One month later he reported that he was well and had no major side effects associated with his new combination. However, 4 weeks further into treatment he represented with an itchy rash affecting his arms and hands. On examination there was a maculopapular rash over the affected area but there was no oral ulceration, conjunctivitis, or fever. A drug reaction was diagnosed and he was prescribed antihistamines and asked to continue with his medication. One week later the rash had subsided. Then having spent a day outside in the sun he had a florid recurrence of the rash over the exposed areas (arms, back of neck, face, and ears). The rash was significantly worse over his elbows where there was obvious blistering and oedema. His medication was stopped and 3 weeks later the rash had completely resolved. Hepatitis C antibody and porphyria screening were negative. This man had been diagnosed as HIV antibody positive in June 1997. In March 1998 his viral load was 356 790 copies/ml (Roche PCR) and his CD 4 count was 512×10^6 cells/l, he was commenced on dual antiretroviral therapy with stavudine and didanosine (patient choice). Initially he did very well as the viral load became undetectable (<400 copies/ml). However, after 9 months on this combination his viral load began to rebound (5192 copies/ml) and a change in antiretroviral therapy was initiated to combivir and nevirapine which he initiated in the normal way (dose escalation at 2 weeks of nevirapine). He was started on this combination as he wished to take a protease sparing regimen. However, 1 week later he developed a rash affecting his entire body, especially his trunk and arms, associated with enlarged lymph nodes and constitutional symptoms, fever, and lethargy. In view of the constitutional symptoms it was decided to stop this present combination. One month later, the rash had settled, he then commenced combivir and efavirenz.

Photosensitivity in the context of HIV has been reported as a presenting sign of underlying HIV infection in a number of cases.[1–3] In addition to this porphyria cutanea tarda (PCT) has been reported in the context of HIV infection and has been associated with concomitant hepatitis C infection[4]; however, screening for both these conditions was negative. Switching from nevirapine to efavirenz in this context may have been regarded as unwise; however, of 19 patients who have been intolerant of nevirapine secondary to the development of rash, who have switched to efavirenz only nine have developed a mild to moderate rash, of which only two needed to discontinue therapy.[5] Photosensitivity in the context of HIV infection may not only be a presenting condition but also secondary to concomitant treatment.

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1 Pappert A, Grossman M, DeLeo V. Photosensitivity as the presenting illness in four patients with human immunodeficiency viral infection. *Arch Dermatol* 1994;**130**:618–23.
2 Schreckenberg C, Lipsker D, Petiau P, *et al.* Photosensitivity as presenting sign of HIV infection. Control with triple antiretroviral therapy. (French). *Ann de Dermatol Venereol* 1998;**125**:516–8.
3 Meola T, Sanchez M, Lim HW, *et al.* Chronic actinic dermatitis associated with human immunodeficiency virus *Br J Dermatol* 1997; **137**:431–6.
4 O'Connor WJ, Murphy GM, Darby C, *et al.* Porphyrin abnormalities in acquired immunodeficiency syndrome *Arch Dermatol* 1996;**132**: 1443–7.
5 DuPont Pharmaceuticals Company Research Laboratories. Wilmington, DE. In-house data 19805.

Accepted for publication 20 March 2000

HIV associated cytomegalovirus retinitis in Melbourne, Australia

EDITOR,—We report the results of a 12 year review of human immunodeficiency virus (HIV) associated cytomegalovirus (CMV) retinitis in Melbourne, Australia.

We conducted a retrospective review of all HIV infected patients diagnosed with CMV retinitis at Fairfield Hospital and the Alfred Hospital between 1984 and 1996, aiming to identify factors at diagnosis of CMV retinitis which were predictive of outcome. Both hospitals had the same protocol for the treatment of CMV retinitis and employed 3 monthly ophthalmological screening of all HIV infected patients with CD4 counts of less than 50×10^6/l.

The study outcomes were visual loss and death. Moderate visual loss was defined as a visual acuity of less than 6/12 in the better eye, and severe visual loss as visual acuity of less than 6/60 in the better eye (this is legal blindness in Australia).

CMV retinitis was diagnosed in 212 of 1281 patients (16.5%) with AIDS over the study period. As of June 1998, 193 (93%) had died, at a median time of 36 weeks (range 0–192) from CMV diagnosis. Seventy four patients (35%) developed moderate visual loss at a median time of 23 weeks (range 0–163) and 30 patients (14%) developed severe visual loss at a median time of 35 weeks (range 0–120) from diagnosis of CMV retinitis.

The presence of visual symptoms at diagnosis of CMV retinitis was predictive of the development of moderate visual loss (relative risk 2.1, 95% confidence interval 1.1–4.2). Fifty eight of 138 patients (42%) with visual symptoms at diagnosis developed moderate visual loss, compared with 16 of 64 patients (25%) who were asymptomatic at diagnosis (p=0.02). The presence of visual symptoms at diagnosis was not predictive of the development of severe visual loss, or early death (p>0.2). Other factors measured at diagnosis of CMV retinitis included the patients' age, CD4 count, weight, visual acuity, and the presence of any previous AIDS defining condition. None of these was associated with the development of visual loss or early death (p>0.1).

The advent of highly active antiretroviral therapy (HAART) has resulted in a reduction in the incidence of new diagnoses of opportunistic infections. Prolonged survival times with CMV retinitis have been demonstrated in patients who achieve immunological recovery with HAART.[1 2] The ability to predict those patients who are at highest risk of visual loss may assist in advising those who may reasonably cease maintenance therapy for CMV retinitis following immune restoration. An understanding of the natural history of CMV retinitis in the pre-HAART years remains important in managing patients who are failing HIV therapy.

The only factor measurable at diagnosis of CMV retinitis that was predictive of outcome was the presence of visual symptoms. The use of routine ophthalmological screening in HIV infected individuals with low CD4 counts aims to detect CMV retinitis before visual symptoms occur. It is possible that visual loss may be prevented by detecting disease before retinal damage occurs. A prospective evaluation is needed to confirm this finding.

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1 Casado JL, Arrizabalaga J, Montes M, *et al.* Incidence and risk factors for developing CMV retinitis in HIV infected patients receiving protease inhibitor therapy. Spanish CMV-AIDS study group. *AIDS* 1999;**13**:1497–502.
2 Doan S, Cochereau I, Guvenisi KN, *et al.* Cytomegalovirus retinitis in HIV-infected patients with and without highly active antiretroviral therapy. *Am J Ophthalmol* 1999;**128**: 250–1.

Accepted for publication 20 April 2000

Azithromycin *v* oxytetracycline for the treatment of non-specific urethritis

EDITOR,—Single dose azithromycin 1 g rather than multidose tetracyclines or erythromycin over several days for the treatment of chlamydial infections is becoming more widespread as patient acceptability and improved compliance outweigh cost considerations. However, in men, treatment is often initiated on the basis of microscopic evidence of urethritis before the chlamydial result is available. Relatively few studies report the efficacy of azithromycin in the treatment of non-gonococcal non-chlamydial urethritis (NSU),[1–3] but recently published evidence based guidelines for the management of NSU recommend either doxycycline 100 mg twice daily for 7 days or azithromycin 1 g immediately.[4]

In this genitourinary medicine clinic azithromycin became first line treatment for all proved or suspected chlamydial infections from 1 April 1998. This retrospective study assessed the efficacy of azithromycin for the treatment of NSU compared with oxytetracycline 250 mg four times daily for 7 days, the previous first line treatment regimen for men with microscopic urethritis in whom no Gram negative diplococci were evident.

The outcome of all men with NSU diagnosed between 1 April 1998 and 30 September 1998 (treated with azithromycin) was compared with those diagnosed between 1 April 1997 and 30 September 1997 (treated with oxytetracycline).

NSU was defined as the presence of at least five polymorphonuclear leucocytes (PMNL) in five or more fields on microscopy of a urethral smear, negative culture of *Neisseria gonorrhoea* after direct plating onto modified New York culture medium and negative chlamydial screen on ELISA testing (Syva) of a urethral swab.

"Cure" was defined as either resolution of symptoms or clearing of previously positive two glass urine. A repeat urethral smear was not examined routinely.

"Treatment failure" was defined as persistent PMNL on microscopy of a urethral smear taken because of ongoing symptoms or persistent positive two glass urine test, with possibility of reinfection denied.

The results (see table 1) demonstrate that azithromycin is as effective as oxytetracycline in curing NSU, and produces fewer treatment failures, possibly owing to better compliance with single dose therapy. Compliance with multidose regimens might be expected to be less good in asymptomatic patients, but with no satisfactory "test of cure" this was difficult to ascertain. Overall, there was a 25% non-attendance rate for follow up, biased towards the asymptomatic patients and those treated with oxytetracycline.

Table 1 Comparative age, symptoms, and response to treatment of the two groups

	1997, oxytetracycline	*1998, azithromycin*
Number treated	76	52
Median age (range)	28 (18–63)	25 (16–54)
No with symptoms (%)	35 (46)	25 (48)
No cured (%)	29 (38)	27 (52)
No treatment failures (%)	6 (8)	0
Outcome uncertain*	41 (54)	25 (48)
Symptomatic dna	8/35 (23)	4/25 (16)
Asymptomatic dna	13/41 (32)	7/27 (26)

*Originally asymptomatic with clear two glass urine; did not reattend (dna); possibly reinfected.

The results of the two glass urine test did not differ significantly between the two groups but overall was positive in 70% of symptomatic patients compared with only 47% asymptomatic ($p<0.01$) Its low sensitivity and specificity[4] are likely to be even lower in asymptomatic patients. Default from follow up occurred more frequently in the asymptomatic patients, but was less evident in the azithromycin treated group, who had a lower default rate overall, as previously reported.[5]

In conclusion, although the numbers are small, it would appear that azithromycin is an effective treatment for NSU, and can be given at the time of initial diagnosis, pending the chlamydial result. Financial considerations preclude the use of azithromycin as first line treatment for NSU in many centres, but better compliance resulting in fewer treatment failures, and fewer wasted appointments from defaults may counter the economic argument.[5]

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1 Stamm WE, Hicks CB, Martin DH, *et al.* Azithromycin for empirical treatment of the nongonococcal urethritis syndrome in men. *JAMA* 1995;**274**:545–9.
2 Lister PJ, Balechandran T, Ridgway GL, *et al.* Comparison of azithromycin and doxycycline in the treatment of non-gonococcal urethritis in men. *J Antimicrob Chemother* 1993;**31**:Suppl E 185–92
3 Lauharanta J, Saarinen K, Mustonen M-T, *et al.* Single-dose oral azithromycin versus seven-day doxycycline in the treatment of non-gonococcal urethritis in males. *J Antimicrob Chemother* 1993;**31**:Suppl E 177–83
4 Horner P, Shahmanesh M. Management of non-gonococcal urethritis. *Sex Transm Inf* 1999;**75**(Suppl 1):S9-S12
5 Carlin EM, Barton SE. Azithromycin as the first-line treatment of non-gonococcal urethritis (NGU): a study of follow-up rates, contact attendance and patients' treatment preference. *Int J STD AIDS* 1996;**7**:185–9

Accepted for publication 19 April 2000

Sexually transmitted infections in elderly people

EDITOR,—Jaleel *et al* recently presented the incidence of sexually transmitted infections and other conditions among elderly people attending a genitourinary medicine clinic.[1]

We, in our genitourinary medicine department at Royal Berkshire Hospital, Reading, studied the reasons for attendance of elderly people and compared them with the younger age group. Data were collected from patients aged 60 and above who attended the clinic between January 1998 and December 1998. Randomly selected sex matched people aged 20–35 years are taken for comparison.

A total of 68 elderly people attended the clinic. The mean age was 66.5 years (range 60–83); 61 (90%) were male and seven (10%) were female. Forty one (60%) attended for STI screening and 27 (40%) attended for non-STI management. In the younger age group 60 (88%) attended for STI screening and eight (12%) attended for non-STI management ($p<0.001$). Sixteen (24%) older attendees had an STI compared with 35 (51%) in the younger age group (see table 1). Of the 16 older attendees with suspected STIs 11(68%) waited over 2 weeks between symptom recognition and clinic attendance. Of 31 symptomatic attendees in the younger age group 10 (32%) waited over 2 weeks for symptom recognition and clinic attendance ($p<0.001$).

Table 1 Diagnoses of older and younger clinic attendees

	Older clinic	*Younger clinic*
	(No of patients)	
STIs		
NSU	7	21
Latent syphlis	3	
Genital herpes	2	1
Genital warts	1	11
Gonorrhoea	1	2
Trichomonas vaginalis	1	
HIV	1	
Other conditions		
Erectile dysfunction	15	1
Balanitis	9	1
Lichen sclerosus	1	
Zoon's balanitis	1	
Genital psoriasis	1	1
Genital ectopic sebaceous glands		1
Genital skin tag		1
Inguinal hernia		1
Genital sebaceous cyst		1
Miscellaneous (hepatitis B vaccination)		1

Many elderly people maintain heterosexual and homosexual activity. Therefore this age group is at a risk of all sexually transmitted infections.[2] In our study, a smaller percentage of older attendees had STIs compared with previous studies.[1 3] However, the number of older patients who attended for non-STI management are comparable. The delay between symptom recognition and healthcare presentation is a feature of STI related illness behaviour. The delay behaviour among individuals with suspected STIs is age specific, with longer latency periods experienced by people over the age of 50.[4] This finding was seen in our study as well.

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1 Jaleel H, Allan PS, Wade AAH. Sexually transmitted infections in elderly people. *Sex Transm Inf* 1999;**75**:449.
2 De Hertough DA. Sexually transmitted diseases in the elderly. *Infect Med* 1994;**11**:361–3.
3 Gott CM, Jushuf IM, Mckee KJ, *et al.* Characteristics of older patients attending genitourinary medicine clinics. *Health Care in Later Life* 1998;**3**:252–7.
4 Gott CM, Rogstad KE, Riley V, *et al.* Delay in symptom presentation among a sample of older GUM clinic attenders. *Int J STD AIDS* 1999;**10**:43–6.

Accepted for publication 20 April 2000

Tertiary syphilis

EDITOR,—I read Dr Reed's letter on tertiary syphilis[1] with interest.

The regimen he describes for the treatment of early syphilis—arsenic, bismuth, and round the clock aqueous penicillin, was used in our hospital from 1946–8[2] although daily penicillin in beeswax was also used. It was unclear how much inactive penicillin K was in the commercial product used. The penicillin regimen used here was higher than in Lincoln (40 000–75 000 units 3–4 hourly). There were 10 treatment failures (?reinfections) out of 275 patients described.[2]

Treponema pallidum remains viable in the CSF even after adequate clinical treatment[3 4]

The old adage that we achieve clinical but not microbiological cure of syphilis with antibiotics is probably true.

It is likely that most people in developed countries nowadays who have untreated syphilis have received treponemicidal antibiotics for other intercurrent infections, so that any neurosyphilis that developed would either be modified[5] with few physical signs or would be completely treated and clinically cured. However, others disagree with this.[6]

But, to answer Dr Reed's question, we haven't seen anyone treated since the second world war who has developed neurosyphilis in subsequent years.

DAVID GOLDMEIER

1 Reed TAG. Tertiary syphilis. *Sex Transm Inf* 1999;**75**:75.
2 McElligott GLM, Jefferiss FJG, Willcox RR. The treatment of early syphilis with penicillin, neoarsphenamine and bismuth. *Br J Vener Dis* 1948;**24**:45–9.
3 Hay PE, Clarke JR, Taylor-Robinson D, *et al.* Detection of treponemal DNA in the CSF of patients with syphilis and HIV infection using the polymerase chain reaction. *Genitourin Med* 1990;**66**:428–32.
4 Rolfs RT, Joesoef MR, Hendershot EF, *et al.* A randomised trial of enhanced therapy for early syphilis in patients with and without human immunodeficiency virus infection. *N Engl J Med* 1997;**337**:307–14.
5 Hooshmand H, Escobar MR, Kopf SW. Neurosyphilis—a study of 241 patients. *JAMA* 1972;**219**:726–9.
6 Luxon L, Lees AJ, Greenwood RJ. Neurosyphilis today. *Lancet* 1979:1:90–3.

BOOK REVIEWS

Infectious Diseases. By Donald Armstrong and Jonathan Cohen. Pp 2000; £250 (two volumes). London: Mosby, 1999. ISBN 0723 423288.

The most striking first impression of these two volumes is the lavish production with marvellous illustrations, photographs, and tables. It has many excellent features. The text is well set out and easy on the eye. The experience of the authors in approaching various diseases and clinical syndromes comes through strongly. The sections comprehensively cover infectious disease from basic science to clinical management. The clinical microbiology section is an important anchor and could be a short textbook in itself. I very much enjoyed the numerous practice points, which are oriented towards clinicians faced with funding solutions to problems. These consist of short essays with tables or illustrations and tackle particular clinical problems such as "the diagnosis of HIV in newborns," "what is the treatment of a positive toxoplasma titre in pregnancy?" or are in a debating style—for example, "how long should osteomyelitis be treated?"

Each section is colour coded and although the American numbering system takes a few minutes to get used to one can easily navigate around the book. The contributors are all internationally famous in their fields and, with so many of them, I am quite impressed by how up to date the book is. They must have been chased hard to get their contribution in on time. One of the few criticism would be that there could have been more on hepatitis C and its interaction with HIV.

However, if you can't find what you want in this book, there is a comprehensive list of websites, which are of interest to infectious disease and other physicians. There is a free CD ROM which creates a direct internet link to these sites. The other important resource is a slide library, which comes on the same CD ROM. In all, 1500 tables and clinical and other photographs are stored and can be made up into personalised presentations; these can then be used as a teaching resource via computer generated images. The high quality of these images will impress anyone involved in producing material for teaching. However, it is a shame some of the useful tables have not made it from the text to the CD ROM.

Although this book is expensive, I would recommend it to anyone interested in infectious diseases especially those who have to teach at any level, undergraduate or postgraduate.

With the rise of the internet the big textbook might soon be heading for extinction. Thankfully this book delays the time when I will be downloading information from the super highway rather than turning over the pages of a well produced book. If I need to use my computer there is always that free CD ROM.....

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Review of ABC of Sexual Health. Ed John Tomlinson. Pp 60; £14.95. London: BMJ Books, 1999. ISBN 0-7279-1373-5.

I was delighted when the editor sent me this book and asked me to review it. I had looked forward with anticipation to the original series that were published in the *BMJ*. I had thought then that each article was just superb and now they are all neatly packed together in this ABC, I am of the opinion that this is an excellent book which achieves its aim completely. On the cover, it says "it is an ideal reference for doctors, nurses, students and all those not involved in the area of sexual health," and Professor Adler adds in the foreword that this book will put the profession in touch with the real world, real people, with real problems, and fill a large gap in our knowledge.

John Tomlinson, the editor, has pulled together an excellent group of experts who have practical experience in the field and have managed to condense that experience into a series of short articles, all of which make informative, yet entertaining reading. In my opinion, no specific background is required to gain information from these articles and I have recommended specific sections of this book for individual patients who need to read about their problem.

Those of us who work in sexual medicine were amused that the *BMJ* had to carry a warning about the sexually explicit material inside and, indeed, John Tomlinson refers to this in the preface and admits that a very small number of readers were offended. However, given the general reticence in society about sexual matters, this is not surprising.

Sexual health is an essential part of having a happy and fulfilling life, and everyone who works in a caring profession should be comfortable when the conversation drifts into areas of sexuality. Patients, who often broach the topic with trepidation, need to be assured of a sensitive hearing. In my opinion, this excellent book will give anyone in the caring profession a good grounding in sexual matters, so that they can explore these areas with patients when appropriate, without embarrassment and have some idea of likely strategies of management.

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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 Management Forum (website: www.IHMF.org) has launched new guidelines on the management of herpesvirus infections in pregnancy at the 9th 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).

Imperial College School of Medicine, Division of Paediatrics, Obstetrics, and Gynaecology, Advanced Course for Obstetricians and Gynaecologists, 19–23 June 2000
Further details: Symposium Office, Imperial College School of Medicine, Queen Charlotte's and Chelsea Hospital, Goldhawk Road, London W6 0XG (tel: 020 8383 3904; fax: 020 8383 8555; email: sympreg@ic.ac.uk).

Australasian Sexual Health Conference, Ven Troppo, Carlton Hotel, Darwin, Northern Territory, 21–24 June 2000
Further details: Shirley Corley, Conference manager, Dart Associates, PO Box 781, Lane Cove, 2066 NSW, Australia (tel: 02 9418 9396/97; fax: 02 09418 9398; email: dartconv@mpx.com.au).

Imperial College School of Medicine, Division of Paediatrics, Obstetrics, and Gynaecology, Caring for Sexuality in Health and Illness (for healthcare professionals and nurses), jointly with Association of Psychosexual Nursing 27 June 2000
Further details: Symposium Office, Imperial College School of Medicine, Queen Charlotte's and Chelsea Hospital, Goldhawk Road, London W6 0XG (tel: 020 8383 3904; fax: 020 8383 8555; email: sympreg@ic.ac.uk).

Sexual Health and HIV Conference: Facing the Millennium, Portsmouth Marriott Hotel, Portsmouth, 28 June 2000
Further details: Rebecca Mitchell (tel: 023 9286 6796; fax: 023 9286 6769).

6th ESC Congress on Contraception in the Third Millennium: a (R)Evolution in Reproductive and Sexual Health, Ljubljana, Slovenia, 28 June–1 July 2000
Further details: Orga-Med Congress Office, Mr Peter Erard, Essenestraat 77, B-1740 Ternat, Belgium (tel: +32 2 582 08 52; fax: +32 2 582 55 15; email: orgamed@village.uunet.be).

Imperial College School of Medicine, Division of Paediatrics, Obstetrics, and Gynaecology, New Horizons in Recurrent Pregnancy Loss, 29 June–1 July 2000
Further details: Symposium Office, Imperial College School of Medicine, Queen Charlotte's and Chelsea Hospital, Goldhawk Road, London W6 0XG (tel: 020 8383 3904; fax: 020 8383 8555; email: sympreg@ ic.ac.uk).

Imperial College School of Medicine, Division of Paediatrics, Obstetrics, and Gynaecology, Bereavement, 5 July 2000
Further details: Symposium Office, Imperial College School of Medicine, Queen Charlotte's and Chelsea Hospital, Goldhawk Road, London W6 0XG (tel: 020 8383 3904; fax: 020 8383 8555; email: sympreg@ic.ac.uk).

Imperial College School of Medicine, Division of Paediatrics, Obstetrics, and Gynaecology, Advances in Obstetric Medicine: International Meeting of Obstetric Medicine Societies (satellite to ISSHP, Paris, 6–7 July 2000
Further details: Symposium Office, Imperial College School of Medicine, Queen Charlotte's and Chelsea Hospital, Goldhawk Road, London W6 0XG (tel: 020 8383 3904; fax: 020 8383 8555; email: sympreg@ic.ac.uk).

XIII International AIDS Conference, 9–14 July 2000, Durban, South Africa
Further details: Congrex Sweden AB, PO Box 5619, Linnegatan 89A, 114 86 Stockholm, Sweden (tel: +46 8 459 6600; fax: +46 8 661 91 25; email: aids2000@congrex.se).

The Management of Genito-urinary Infections in Women, Royal Society of Medicine, London, 13–14 July 2000

Ethical Issues in International Health Research, Durban, South Africa, 16–21 July 2000 (immediately following XIII International AIDS Conference)
Further details: Marie-Christine Ryckaert, Program director, Ethical Issues in International Health Research, Harvard University, John F Kennedy School of Government, Cambridge, MA 02138, USA (tel: (617) 496-0484 ex 7474; fax: (617 495-3090; email: Marie-Christine_Ryckaert@harvard.edu).

12th Annual Meeting of the Spanish Association of Cervical Pathology and Colposcopy (AEPCC) and HPV Clinical Workshop, 21–23 July 2000 and 18th International Papillomavirus Conference, 23–28 July 2000, Palau de Congressos, Barcelona, Spain
Further details: PACIFICO, SA, E Granados, 44, 08008 Barcelona, Spain (tel: +34.93.454.54.00; fax: +34.93.451.74.38; email: gp@pacifico-meetings.com).

MSSVD Clinical Developments Fund
The MSSVD Clinical Developments Fund is asking for applications for funding to support projects that advance the understanding and practice of genitourinary medicine. An amount of £10 000 is available to one or more successful applicant(s). Closing date for application is 25 August 2000. Further details: Dr Keith Radcliffe, Honorary Assistant Secretary MSSVD, Whitall Street Clinic, Whitall Street, Birmingham B4 6DH (tel: 0121 237 5719; fax: 0121 237 5729; email: keith.radcliffe@bscht.wmids.nhs.uk).

3rd Congress of the Baltic Association of Dermatovenereology, 7–9 September 2000, Riga, Latvia
Further details: Professor Andris Y Rubins, Department of Dermatovenereology, Medical Academy of Latvia, K Valdemara Street, 76–75, Riga, LV-1013, Latvia (tel: +(371) 7370395; fax: +(371 7361615; email: arubins@apollo.lv).

National NCCG Update Meeting, Bromsgrove Stakis Hotel, 23–24 September 2000
Further details: Kathy Taylor (tel: 01384 235207; email: palmtraining@tesco.net).

11th Regional Meeting of International Union against Sexually Transmitted Infections, South East Asian and Western Pacific Branch and 24th National Conference of Indian Association for the Study of Sexually Transmitted Diseases and AIDS, 13–15 October 2000, Chandigarh, India
Further details: Dr Bhushan Kumar, Organising Secretary, 11th Regional Meeting of IUSTI–Asia Pacific (SE Asia and W Pacific Branch), Department of Dermatology, Venereology and Leprosy, PGIMER, Chandigarh - 160 012, India (tel: +91 (0172) 745330; fax: +91 (0172) 744401/745078; email: kumarbhushan@hotmail.com).

Consortium of Thai Training Institutes for STDs and AIDS—10th STDs/AIDS diploma course, Bangkok Hospital, Bangkok (30 Oct–12 Nov) and Prince of Songkla University, Hat Yai, Thailand (13–23 Nov) 30 October–23 November 2000
Further details: Hat Yai Secretariat, Dr Verapol Chandeying, Dept of OB-GYN, Faculty of Medicine, Prince of Songkla University, Hat Yai, Songkla 90110, Thailand (fax: (66-74) 446 361; email: cverapol@ratree.psu.ac.th *or* Bangkok Secretariat, Dr Thanit Palanuvej, Bangkok Hospital, 189 Sathorn Road, Bangkok 10120, Thailand (fax: (66-2) 286 3013; email: pthanit@email.ksc.net).

Consortium of Thai Training Institutes for STDs and AIDS—International Reunion and Refresher Course on Sexual Health, Lee Garden Plaza Hotel, Hat Yai, Thailand 24–26 November 2000
Further details: Hat Yai Secretariat, Dr Verapol Chandeying, Dept of OB-GYN, Faculty of Medicine, Prince of Songkla University, Hat Yai, Songkla 90110, Thailand (fax: (66-74) 446 361; email: cverapol@ratree.psu.ac.th *or* Bangkok Secretariat, Dr Thanit Palanuvej, Bangkok Hospital, 189 Sathorn Road, Bangkok 10120, Thailand (fax: (66-2) 286 3013; email: pthanit@email.ksc.net).

CORRECTION

An error occurred in the February issue of *STI*. The author of the editorial "The COPE Report 1999" (2000;**76**:68) is Alexander (not Alexandra) McMillan.

CURRENT PUBLICATIONS

Selected titles form recent reports published worldwide are arranged in the following sections:

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Chlamydia
Candidiasis
Bacterial vaginosis
Trichomoniasis
Pelvic inflammatory disease
Syphilis and other treponematoses
Hepatitis
Herpes
Human papillomavirus infection
Cervical cytology and colposcopy
Other sexually transmitted infections
Public health and social aspects
Microbiology and immunology
Dermatology
Miscellaneous

Gonorrhoea

Susceptibility to gonococcal infection during the menstrual cycle.
S NOWICKI, A HARTVANTASSELL, B NOWICKI. *JAMA* 2000;**283**:1291

'Broken windows' and the risk of gonorrhoea.
D CIHEN, S SPEAR, R SCRIBNER *et al. Am J Pub Health* 2000;**90**:230–6

High HIV seroprevalence associated with gonorrhea: New York City Department of Health, sexually transmitted disease clinics, 1990–1997.
LV TORIAN, HA MAKKI, IB MENZIES *et al. AIDS* 2000;**14**:189–96

Rise in gonorrhoea in London, UK.
IMC MARTIN, CA ISON. *Lancet* 2000;**355**:623

Urine screening for gonococcal and chlamydial infections at community-based organizations in a high-morbidity area.
CA JONES, RC KNAUP. M HAYES, BP STONER. *Sex Transm Dis* 2000;**27**:146–51

Evaluation of four commercial transport media for the survival of *Neisseria gonorrhoeae*.
JC ARBIQUE, KR FORWARD, J LEBLANC. *Diag Microbiol Infect Dis* 2000;**36**:163–8

Antimicrobial resistance of *Neisseria gonorrhoeae* and high prevalence of ciprofloxacin-resistant isolates in Japan, 1993 to 1998.
M TANAKA, H NAKAYAMA, M HARAOKA *et al. J Clin Microbiol* 2000;**38**:521–5

Prevalence and tetM subtype of tetracycline-resistant *Neisseria gonorrhoeae* in Ohio, 1994.
DL TREES, Y FAKILE, SW NEAL, JS KNAPP. *Sex Transm Dis* 2000;**27**:46–8

Resistance of *Neisseria gonorrhoeae* epidemic strains to antibiotics—report of resistant isolates and surveillance in Zhanjiang, China: 1998 to 1999.
GM LI, Q CHEN, SC WANG. *Sex Transm Dis* 2000;**27**:115–8

Effects of the immunoglobulin A1 protease on *Neisseria gonorrhoeae* trafficking across polarized T84 epithelial monolayers.
S HOPPER, B VASQUEZ, A MERZ *et al. Infect Immun* 2000;**68**:906–24

Charged tmRNA but not tmRNA-mediated proteolysis is essential for *Neisseria gonorrhoeae* viability.
CH HUANG, WC WOLFGANG, J WITHEY *et al. EMBO J* 2000;**19**:1098–1107

Chlamydia

Acute primary *Chlamydia trachomatis* infection in male adolescents after their first sexual contact.
I SRUGO, R GERSHTEIN, S MADJAR *et al. Arch Pediat Adolesc Med* 2000;**154**:169–72

Evaluation of patient-administered tampon specimens for *Chlamydia trachomatis* and *Neisseria gonorrhoeae*.
SN TABRIZI, CK FAIRLEY, SJ CHEN *et al. Sex Transm Dis* 2000;**27**:133–7

Evaluation of chlamydia and gonorrhoea screening criteria—San Francisco sexually transmitted disease clinic: 1997 to 1998.
EL CIEMINS, CK KENT, J FLOOD, JD KLAUSNER. *Sex Transm Dis* 2000;**27**:165–7

Impact of switching laboratory tests on reported trends in *Chlamydia trachomatis* infections.
LW DICKER, DJ MOSURE, WC LEVINE, CM BLACK, SM BERMAN. *Am J Epidemiol* 2000;**151**:430–5

Detection of *Chlamydia trachomatis* in pregnant women by the Papanicolaou technique, enzyme immunoassay and polymerase chain reaction.
CAB PANUCO, ID RODRIGUEZ, JTH MENDEZ *et al. Acta Cytol* 2000;**44**:114–23

Multicenter evaluation of the AMPLICOR and automated COBAS AMPLICOR CT/NG tests for detection of *Chlamydia trachomatis*.
B VANDERPOL, TC QUINN, CA GAYDOS *et al. J Clin Microbiol* 2000;**38**:1105–12

Chlamydial development is adversely affected by minor changes in amino acid supply, blood plasma amino acid levels and glucose deprivation.
A HARPER, CI POGSON, ML JONES, JH PEARCE. *Infect Immun* 2000;**68**:1457–54

Differential regulation of CD4 lymphocyte recruitment between the upper and lower regions of the genital tract during *Chlamydia trachomatis* infection.
KA KELLY, JC WALKER, SH JAMEEL *et al. Infect Immun* 2000;**68**:1519–28

T-cell epitopes in variable segments of *Chlamydia trachomatis* major outer membrane protein elicit serovar-specific immune responses in infected humans.
L ORTIZ, M ANGEVINE, SK KIM *et al. Infect Immun* 2000;**68**:1719–23

Candidiasis

Vaginal colonization by *Candida* in asymptomatic women with and without a history of recurrent vulvovaginal candidiasis.
P GIRALDO, A VONNOWASKONSKI, FAM GOMES *et al. Obstet Gynecol* 2000;**95**:413–6

Effects of reproductive hormones on experimental vaginal candidiasis.
OL FIDEL, J CUTRIGHT, C STEELE. *Infect Immun* 2000;**68**:651–63

Evaluation of the Oricult-N dipslide for laboratory diagnosis of vaginal candidiasis.
P CARLSON, M RICHATDSON, J PAAVONEN. *J Clin Microbiol* 2000;**38**:1063–76

Clonal and spontaneous origins of fluconazole resistance in *Candida albicans*.
JP XU, AR RAMOS, R VILGALYS, TG MITCHELL. *J Clin Microbiol* 2000;**38**:1214–20

Mechanisms of the proinflammatory response of endothelial cells to *Candida albicans* infection.
AS OROZCO, X ZHOU, SG FILLER. *Infect Immun* 2000;**68**:1134–49

Bacterial vaginosis

Bacterial vaginosis.
B NIEVES. *Anaerobe* 1999;**5**:343–6

Metronidazole to prevent preterm delivery in pregnant women with asymptomatic bacterial vaginosis.
JC CAREY, MA KLEBANOFF, JC HAUTH *et al. N Engl J Med* 2000;**342**:534–40

Pre-term labor associated with bacterial vaginosis.
H CALDERAS, B NIEVES, A QUINTANA. *Anaerobe* 1999;**5**:403–4

Trichomoniasis

Resistance of *Trichomonas vaginalis* to metronidazole: report of the first three cases from Finland and optimization of in vitro susceptibility testing under various oxygen concentrations.
T MERI, TS JOKIRANTA, L SUHONEN, S MERI. *J Clin Microbiol* 2000;**38**:763–7

Antigenicity of *Trichomonas vaginalis* heat-shock proteins in human infections.
SR DAVISHAYMAN, PH SHAH, RW FINLEY *et al. Parasitol Res* 2000;**86**:115–20

Pelvic inflammatory disease

Pelvic inflammatory disease—an evidence-based approach to diagnosis.
PR MUNDAY. *J Infect* 2000;**40**:31–41

Influence of human immunodeficiency virus infection on pelvic inflammatory disease.
KL IRWIN, AC MOORMAN, MJ OSULLIVAN *et al. Obstet Gynecol* 2000;**95**:525–34

Direct medical cost of pelvic inflammatory disease and its sequelae: decreasing but still substantial.
DB REIN, WJ KASSLER, KL IRWIN, L RABIEE. *Obstet Gynecol* 2000;**95**:397–402

Syphilis and other treponematoses

Unraveling the Tuskegee Study for untreated syphilis.
RM WHITE. *Arch Intern Med* 2000;**160**:585–601

Nodular tertiary syphilis mimicking granuloma annulare.
SJ WU, EQ NGUYEN, TA NIELSON, AE PELLEGRINI. *J Am Acad Dermatol* 2000;**42**:378–80

Social network method for endemic foci of syphilis: a pilot project.
R ROTHENBERG, L KINBROUGH, R LEWISHARDY *et al. Sex Transm Dis* 2000;**27**:12–8

Geographic variation of HIV infection in childbearing women with syphilis in the United States.
EH KOUMANS, M STERNBERG, M GWINN *et al. AIDS* 2000;**14**:279–88

HIV prevalence in patients with syphilis, United States.
ME BLOCKER, WC LEVINE, ME STLOUIS. *Sex Transm Dis* 2000;**27**:53–9

From the CDC—syphilis elimination: history in the making—opening remarks.
J KOPLAN. *Sex Transm Dis* 2000;**27**:63–5

From the CDC—syphilis elimination: history in the making—closing remarks.
D SATCHER. *Sex Transm Dis* 2000;**27**:68–73

Primary and secondary syphilis in the metropolitan area of Nashville and Davidson County, Tennessee—1996 to 1998 epidemic described.
JS HUANG, WB ROGERS, SBC BAILEY. *Sex Transm Dis* 2000;**27**:168–74

Virulent *Treponema pallidum* lipoprotein and synthetic lipopeptides induce CCR5 on human monocytes and enhance their susceptibility to infection by human immunodeficiency virus type 1.
TJ SELLATI, DA WILKINSON, JS SHEFFIELD *et al. J Infect Dis* 2000;**181**:283–92

Hepatitis

International congress on viral hepatitis A and B: experience in education and prevention.
Vaccine 2000;**18**:Suppl 1 (whole issue)

The seroprevalence of hepatitis A and B in people testing positive for hepatitis C.
LA KIEFER, A HONISH, G PREDY, JA TALBOT. *Can Med Assoc J* 2000;**162**:207–8

'Silent killer' or benign disease? The dilemma of hepatitis C virus outcomes.
KR HIRSCH, TL WRIGHT. *Hepatology* 2000;**31**:536–7

Hepatitis C epidemiology: injecting new tools in the field.
DL THOMAS. *Hepatology* 2000;**31**:790–806

45-Year follow-up of hepatitis C virus infection in healthy young adults.
LB SEEFF, RN MILLER, CS RABKIN *et al. Ann Intern Med* 2000;**132**:105–11

Prevalence of hepatitis G virus in patients with hemophilia and their steady female sexual partners.
AET YEO, A MATSUMOTO, JW SHIH *et al. Sex Transm Dis* 2000;**27**:178–82

Are booster immunizations needed for lifelong hepatitis B immunity?
J BANATVALA, M KANE, G DAVILLA *et al. Lancet* 2000;**355**:561–5

Cellular and humoral immune responses induced by intradermal or intramuscular vaccination with the major hepatitis B surface antigen.
F RAHMAN, A DAHMEN, S HERZOGHAUFF *et al. Hepatology* 2000;**31**:521–7

Herpes

Herpes simplex type 2 infection in the developing world: is it time to address this disease?
L COREY. *Sex Transm Dis* 2000;**27**:30–1

Genital herpes and public health: addressing a global problem.
L COREY, HH HANDSFIELD. *JAMA* 2000;**283**:791–4

Reactivation of genital herpes simplex virus type 2 infection in asymptomatic seropositive persons.
A WALD, J ZEH, S SELKE *et al. N Engl J Med* 2000;**342**:844–50

Herpes simplex virus type 2 shedding in human immunodeficiency virus-negative men who have sex with men: frequency, patterns and risk factors.
MR KRONE, A WALD, SR TABET *et al. Clin Infect Dis* 2000;**30**:261–7

Editorial response: Asymptomatic herpes simplex virus shedding and Russian roulette.
LA STANBERRY. *Clin Infect Dis* 2000;**30**:268–9

Human immunodeficiency virus infection and genital ulcer disease in South Africa: the herpetic connection.
CY CHEN, RC BALLARD, CM BECKSAGUE *et al. Sex Transm Dis* 2000;**27**:21–9

Medical care expenditures for genital herpes in the United States.
GY TAO, WJ KASSLER, DB REIN. *Sex Transm Dis* 2000;**27**:32–8

Herpes simplex virus DNA in amniotic fluid without neonatal infection.
A ALANEN, V HUKKANEN. *Clin Infect Dis* 2000;**30**:363–7

Herpes simplex virus infection of the uterine cervix—relationship with a cervical factor?
W EGGERTKRUSE, B MILDENBERGERSANDBRINK, P SCHNITZLER *et al. Fert Steril* 2000;**73**:248–57

The herpesvirus proteases as targets for antiviral chemotherapy.
L WAXMAN, PL DARKE. *Antivir Chem Chemother* 2000;**11**:1–22

Monoclonal antibodies suitable for type-specific identification of herpes simplex viruses by a rapid culture assay.
M BYSTRICKA, M ZATOVICOVA, M PETRIKOVA *et al. Acta Virol* 1999;**43**:399–402

Establishment of latent herpes simplex virus type 1 infection in resistant, sensitive and immunodeficient mouse strains.
AR ELLISON, L YANG, C VOYTEK, TP MARGOLIS. *Virology* 2000;**268**:17–28

Herpes simplex virus infection blocks events in the G1 phase of the cell cycle.
B SONG, JJ LIU, KC YEH, DM KNIPE. *Virology* 2000;**267**:326–34

A role for MHC class 1 down-regulation in NK cell lysis virus-infected cells.
B HUARD, K FRUH. *Eur J Immunol* 2000; **30**:509–15

Virus-induced neuronal apoptosis blocked by the herpes simplex virus latency-associated transcript.
GC PERNG, C JONES, J CIACCIZANELLA *et al. Science* 2000;**287**:1500–2

Herpes simplex virus type-1 and -2 pathogenesis is restricted by the epidermal basement membrane.
BS WEEKS, RS RAMCHANDRAN, JJ HOPKINS, HM FRIEDMAN. *Arch Virol* 2000;**145**:385–96

Mitochondrial distribution and function in herpes simplex virus-infected cells.
T MURATA, F GOSHIMA, T DAIKOKU *et al. J Gen Virol* 2000;**81**:401–6

Antegrade transport of herpes simplex virus type 1 in cultured, dissociated human and rat dorsal root ganglion neurons.
M MIRANDASAKSENA, P ARMATI, RA BOADLE *et al. J Virol* 2000;**74**:1827–39

The latency-associated transcript gene enhances establishment of herpes simplex virus type 1 latency in rabbits.
GC PERNG, SM SLANINA, A YUKHT *et al. J Virol* 2000;**74**:1885–99

Limited antibody-dependent cellular cytotoxicity antibody response induced by a herpes simplex virus type 2 subunit vaccine.
S JOHL, ED CHARLEBOIS, M SIGOURAOUDINIA *et al. J Infect Dis* 2000;**181**:335–9

Effect of route of vaccination with vaccinia virus expressing HSV-2 glycoprotein D on protection from genital HSV-2 infection.
DI BERNSTEIN. *Vaccine* 2000;**18**:1351–8

DNA immunization utilizing a herpes simplex virus type 2 myogenic DNA vaccine protects mice from mortality and prevents genital herpes.
JR GEBHARD, JL ZHU, X CAO *et al. Vaccine* 2000;**18**:1837–46

Evidence for a bidirectional element located downstream from the herpes simplex virus type 1 latency-associated promoter that increases its activity during latency.
H BERTHOMME, J LOKENSGARD, L YANG *et al. J Virol* 2000;**74**:3613–22

Human papillomavirus infection

Smoking, diet, pregnancy and oral contraceptive use as risk factors for cervical intra-epithelial neoplasia in relation to human papillomavirus infection.
L KJELLBERG, G HALLMANS, AM AHREN *et al. Br J Cancer* 2000;**82**:1332–8

Gynecological infections as risk determinants of subsequent cervical neoplasia.
M VIIKKI, E PUKKALA, P NIEMINEN, M HAKAMA. *Acta Oncol* 2000;**39**:71–6

Papillomavirus detection: demographic and behavioral characteristics influencing the identification of cervical disease.
E ADAM, Z BERKOVA, Z DAXNEROVA *et al. Am J Obstet Gynecol* 2000;**182**:257–64

Evaluation of a human papillomavirus assay in cervical screening in Zimbabwe.
SD WOMACK, ZM CHIRENJE, PD BLUMENTHAL *et al. Br J Obstet Gynaecol* 2000;**107**:33–8

Determinants of low-risk and high-risk cervical human papillomavirus infections in Montreal university students.
H RICHARDSON, E FRANCO, J PINTOS *et al. Sex Transm Dis* 2000;**27**:79–86

Population-based study of human papillomavirus infection and cervical neoplasia in rural Costa Rica.
R HERRERO, A HILDESHEIM, C BRATTI *et al. J Nat Cancer Inst* 2000;**92**:464–74

Epidemiological aspects of human papillomavirus infection and cervical cancer in Brazil.
SMB CAVALCANTI, LG ZARDO, MRL PASSOS, LHS OLIVEIRA. *J Infect* 2000;**40**:80–7

Human papillomavirus-associated carcinomas in Hawaii and the mainland US.
M FRISCH, MT GOODMAN. *Cancer* 2000;**88**:1464–9

Prevalence of and risks for cervical human papillomavirus infection and squamous intraepithelial lesions in adolescent girls: impact of infection with human immunodeficiency virus.
AB MOSCICKI, JH ELLENBERG, SH VERMUND *et al. Arch Pediat Adolesc Med* 2000;**154**:127–34

A novel and rapid PCR-based method for genotyping human papillomaviruses in clinical samples.
JH NELSON, GA HAWKINS, K EDLUND *et al. J Clin Microbiol* 2000;**38**:688–95

Seroreponses to human papillomavirus types 16, 18, 31, 33 and 45 virus-like particles in South African women with cervical cancer and cervical intraepithelial neoplasia.
DJ MARAIS, RC ROSE, C LANE *et al. J Med Virol* 2000;**60**:403–10

Seroresponses to virus-like particles of human papillomavirus types 16, 18, 31, 33 and 45 in San people of southern Africa.
D MARAIS, RC ROSE, C LANE *et al. J Med Virol* 2000;**60**:331–6

Type specificity and significance of different isotypes of serum antibodies to human papillomavirus capsids.
ZH WANG, L KJELLBERG, H ABDALLA *et al. J Infect Dis* 2000;**181**:456–62

Specific serum IgG, IgM and IgA antibodies to human papillomavirus types 6,11,16,18 and 31 virus-like particles in human immunodeficiency virus-seropositive women.
A PETTER, K HEIM, M GUGUER *et al. J Gen Virol* 2000;**81**:701–8

HPV16 E6 oncogene variants in women with cervical intraepithelial neoplasia.
J LUXTON, C MANT, B GREENWOOD *et al. J Med Virol* 2000;**60**:337–41

Human papillomavirus types 16 E6 and E7 contribute differently to carcinogenesis.
S SONG, A LIEM, JA MILLER, PF LAMBERT. *Virology* 2000;**267**:141–50

The effects of interferon on the expression of human papillomavirus oncogenes.
KY KIM, L BLATT, MW TAYLOR. *J Gen Virol* 2000;**81**:695–700

Human papillomaviruses and DNA ploidy in anal condylomata acuminata.
S RIHET, P BELLAICH, M LOWENZATO *et al. Histopathol* 2000;**15**:79–84

HPV11 mutant virus-like particles elicit immune responses that neutralize virus and delineate a novel neutralizing domain.
SW LUDMERER, WL MCCLEMENTS, XM WANG *et al. Virology* 2000;**266**:237–56

The p53 Arg72Pro polymorphism, human papillomavirus and invasive squamous cell cervical cancer.
MM MADELEINE, K SHERA, SM SCHWARTZ *et al. Cancer Epidem Biomarker Prev* 2000;**9**:225–8

Telomerase, p53 and human papillomavirus infection in the uterine cervix.
P NAIR, PG JAYAPRAKASH, MK NAIR, MR PILLAI. *Acta Oncol* 2000;**39**:65–70

Analysis of human papillomavirus type 16 E6 variants in relation to p53 codon 72 polymorphism genotypes in cervical carcinogenesis.
M VANDUIN, PJF SNIJDERS, MTM VOSSEN *et al. J Gen Virol* 2000;**81**:317–26

The human papillomavirus type 16 E5 protein modulates ERK1/2 and p38 MAP kinase activation by an EGFR-independent process in stressed human keratinocytes.
K CRUSIUS, I RODRIGUEZ, A ALONSO. *Virus Genes* 2000;**20**:65–70

Nuclear matrix attachment regions of human papillomavirus type 16 repress or activate the E6 promoter, depending on the physical state of the viral DNA.
W STUNKEL, ZH HUANG, SH TAN, MJ OCONNOR, HU BERNARD. *J Virol* 2000;**74**:2489–2509

Repression of the integrated papillomavirus E6/E7 promoter is required for growth suppression of cervical cancer cells.
DA FRANCIS, SI SCHMID, PM HOWLEY. *J Virol* 2000;**74**:2679–93

Recombinant adeno-associated virus expressing human papillomavirus type 16 E7 peptide DNA fused with heat shock protein DNA as a potential vaccine for cervical cancer.
DW LIU, YP TSAO, JT KUNG *et al*. *J Virol* 2000;**74**:2888–99

Adeno-associated virus major Rep78 protein disrupts binding of TATA-binding protein to the P97 promoter of human papillomavirus type 16.
PF SU, SY CHIANG, CW WU, FYH WU. *J Virol* 2000;**74**:2459–76

Correlation of TGβ1 overexpression with down-regulation of proliferation-inducing molecules in HPV-11 transformed human tissue xenografts.
MK SHIER, EB NEELY, MG WARD *et al*. *Anticancer Res* 1999;**19**:4969–76

Human papillomavirus E7 proteins stimulate proliferation independently of their ability to associate with retinoblastoma protein.
S CALDEIRA, EM DEVILLIERS, M TOMMASINO. *Oncogene* 2000;**19**:821–6

Mechanisms of human papillomavirus E2-mediated repression of viral oncongene expression and cervical cancer cell growth inhibition.
A NISHIMURA, R ONO, A ISHIMOTO *et al*. *J Virol* 2000;**74**:3752–60

The hinge of the human papillomavirus type 11 E2 protein contains major determinants for nuclear localization and nuclear matrix association.
NX ZOU, BY LIN, FH DUAN *et al*. *J Virol* 2000;**74**:3761–70

The E7 oncogene of human papillomavirus type 16 interacts with F-actin in vitro and in vivo.
O REY, S LEE, MA BALUDA *et al*. *Virology* 2000;**268**:372–81

The human papillomavirus type 11 E1IE4 protein is phosphorylated in genital epithelium.
JT BRYAN, A HAN, KH FIFE, DR BROWN. *Virology* 2000;**268**:430–9

Cervical cytology and colposcopy

Is it feasible for women to perform their own Pap smears? A research question in progress.
RE MARTIN. *Can Med Assoc J* 2000;**162**:666–7

Human papillomavirus testing for triage of women with cytologic evidence of low-grade squamous intraepithelial lesions: baseline data from a randomized trial.
LA KOUTSKY. *J Nat Cancer Inst* 2000;**92**:397–402

Revisiting age effect of the Pap test on cervical cancer.
ND HOLMQUIST. *Am J Pub Health* 2000;**90**:620–3

Cytological recognition of invasive squamous cancer of the uterine cervix: comparison of conventional light-microscopical screening and neural network-based screening.
MR KOK, ME BOON, RH SCHREINERKOK, LG KOSS. *Hum Pathol* 2000;**31**:23–8

Comparison of immediate and deferred colposcopy in a cervical screening program.
GP PARHAM, NR ANDREWS, ML LEE. *Obstet Gynecol* 2000;**95**:340–4

Quality control of cervical cytology in high-risk women: PAPNET system compared with manual rescreening.
C BERGERON, MASSEROLI, A GHEZI *et al*. *Acta Cytol* 2000;**44**:151–7

Incidence of cervical squamous intraepithelial lesions in HIV-infected women.
TV ELLERBROCK, MA CHIASSON, TJ BUSH *et al*. *JAMA* 2000;**283**:1031–7

Vaginal intraepithelial neoplasia and the Pap smear.
RM DAVILA, MC MIRANDA. *Acta Cytol* 2000;**44**:137–40

Effects of tamoxifen on cervicovaginal smears from patients with breast cancer.
MA ABADI, RR BARAKAT, PR SAIGO. *Acta Cytol* 2000;**44**:141–6

A comparison of the side effects of prilocaine with felypressin and lignocaine with adrenaline in large loop excision of the transformation zone of the cervix: results of a randomized trial.
REJ HOWELLS, H TUCKER, J MILLINSHIP *et al*. *Br J Obstet Gynaecol* 2000;**107**:28–32

Completeness of excision and follow up cytology in patients treated with loop excision biopsy.
AM ZAITOUM G MCKEE, MJ COPPEN *et al*. *J Clin Pathol* 2000;**53**:191–6

Expression of MN/CA9 protein in Papanicolaou smears containing atypical glandular cells of undetermined significance is a diagnostic biomarker of cervical dysplasia and neoplasia.
AY LIAO, EJ STANBRIDGE. *Cancer* 2000;**88**:1108–21

Other sexually transmitted infections

Scabies and pediculosis.
O CHOSIDOW. *Lancet* 2000;**355**:819–26

Risk factors for human herpesvirus 8 seropositivity and seroconversion in a cohort of homosexual men.
NHTM DUKERS, N RENWICK, M PRINS *et al*. *Am J Epidemiol* 2000;**151**:213–24

Invited commentary: Determining specific sexual practices associated with human herpesvirus 8 transmission.
JN MARTIN, DH OSMOND. *Am J Epidemiol* 2000;**151**:225–29

Dukers *et al* respond to "Sexual practices associated with HH8V infection".
NHTM DUKERS, RA COUTINHO, J GOUDSMIT. *Am J Epidemiol* 2000;**151**:230

Antibodies to human herpes virus type 8 (HHV8) in general population and in individuals at risk for sexually transmitted diseases in Western Sicily.
AM PERNA, F BONURA, F VITALE *et al*. *Int J Epidemiol* 2000;**29**:175–9

Prevalence and risk factors for human herpesvirus 8 infection in northern Cameroon.
G REZZA, OB TCHANGMENA, M ANDREONI *et al*. *Sex Transm Dis* 2000;**27**:168–74

Localization of *Haemophilus ducreyi* at the pustular stage of disease in the human model of infection.
ME BAUER, SM SPINOLA. *Infect Immun* 2000;**68**:2309–22

Public health and social aspects

Evidence of declining STD prevalence in a South African mining community following a core-group intervention.
R STEEN, B VUYLSTEKE, T DECOITO *et al*. *Sex Transm Dis* 2000;**27**:1–8

STD prevention: effectively reaching the core and a bridge population with a four-component intervention.
CJ VANDAM, KK HOLMES. *Sex Transm Dis* 2000;**27**:9–11

A pragmatic intervention to promote condom use by female sex workers in Thailand.
N FORD, S KOETSAWANG. *Bull WHO* 1999;**77**:888–94

Factors associated with condom use for oral sex among female brothel-based sex workers in Singapore.
ML WONG, RKW CHAN, D KOH, S WEE. *Sex Transm Dis* 2000;**27**:39–45

Effectiveness of an intervention promoting the female condom to patients at sexually transmitted disease clinics.
L ARTZ, M MACAKUSO, I BRILL *et al. Am J Public Health* 2000;**90**:237–44

Comparisons of sexual behaviors, unprotected sex and substance use between two independent cohorts of gay and bisexual men.
KJP CRAIB, AC WEBER, PGA CORNELISSE *et al. AIDS* 2000;**14**:303–12

High prevalence of asymptomatic STDs in incarcerated minority male youth—a case for screening.
RP PACK, RJ DICLEMENTE, EW HOOK, MK OH. *Sex Transm Dis* 2000;**27**:175–7

Microbiology and immunology

Effects of contraceptive method on the vaginal microbial flora: a prospective evaluation.
K GUPTA, SL HILLIER, TM HOOTON *et al. J Infect Dis* 2000;**181**:595–601

Intravaginal practices, vaginal flora disturbances and acquisition of sexually transmitted diseases in Zimbabwean women.
JHHM VANDEWIJGERT, PR MASON, L GWANZURA *et al. J Infect Dis* 2000;**181**:587–94

Effect of chlorhexidine on genital microflora, *Neisseria gonorrhoeae* and *Trichomonas vaginalis* in vitro.
LK RABE, SL HILLIER. *Sex Transm Dis* 2000;**27**:74–8

Molecular epidemiologic approaches to urinary tract infection gene discovery in uropathogenic *Escherichia coli*.
LX ZHANG, B FOXMAN, SD MANNING *et al. Infect Immun* 2000;**68**:2009–15

Dermatology

Circumcision and genital dermatoses.
E MALLON, D HAWKINS, M DINNEEN *et al. Arch Dermatol* 2000;**136**:350–6

Vulvar intraepithelial neoplasia of the simplex (differentiated) type: a clinicopathologic study including analysis of HPV and p53 expression.
B YANG, WR HART. *Am J Surg Pathol* 2000;**24**:429–41

Vulvovaginal soft tissue tumours: update and review.
MR NUCCI, CDM FLETCHER. *Histopathol* 2000;**36**:97–108

Protocol for the examination of specimens from patients with carcinomas and malignant melanomas of the vulva: a basis for checklists.
EJ WILKINSON. *Arch Pathol Lab Med* 2000;**124**:51–6

Mucoepidermoid carcinoma arising in the glans penis.
LJ LAYFIELD, K LIU. *Arch Pathol Lab Med* 2000;**124**:148–51

Penile Kaposi's sarcoma preceded by chronic penile lymphoedema.
RA SCHWARTZ, JB COHEN, RA WATSON *et al. Br J Dermatol* 2000;**142**:153–6

Pathergy reaction in Behçet's disease: lack of correlation with mucocutaneous manifestations and systemic disease expression.
I KRAUSE, Y MOLAD, M MITRANI, A WEINBERGER. *Clin Exp Rheumatol* 2000;**18**:71–4

Case report: Artificial nodules of the penis—case report of an Indonesian man.
TS DJAJAKUSUMAH, A MEHEUS. *Sex Transm Dis* 2000;**13**:152–3

An unusual case of a metastatic lesion to the penis.
SS RAZI, EE GOTTENGER, RL GARCIA, KW LUI. *J Urol* 2000;**163**:908–9

Miscellaneous

Vaccines against sexually transmitted infections: promise and problems of the magic bullets for prevention and control.
GD ZIMET, RM MAYS, JD FORTENBERRY. *Sex Transm Dis* 2000;**27**:49–52

Is there a case for school-based screening for sexually transmitted diseases?
D HICKS. *Lancet* 2000;**355**:864

Ambulatory STD management in an inner-city emergency department—descriptive epidemiology, care utilization patterns and patient perceptions of local public STD clinics.
EL CIEMINS, CK KENT, J FLOOD, JD KLAUSNER. *Sex Transm Dis* 2000;**27**:154–8

Epidemiologic trends of sexually transmitted diseases in China.
XS CHEN, XD GONG, GJ KIANG, GC ZHANG. *Sex Transm Dis* 2000;**27**:138–42

Editorial—sexually transmitted diseases in the People's Republic of China in 2K.
MS COHEN, G OING, K FOX, GE HENDERSON. *Sex Transm Dis* 2000;**27**:143–5

Preventative intervention to reduce sexually transmitted infections: a field trial in the Royal Thai Army.
DD CELENTANO, KC BOND, CM LYLES *et al. Arch Intern Med* 2000;**160**:535–40

Etiology of sexually transmitted infections among street-based female sex workers in Dhaka, Bangladesh.
M RAHMAN, A ALM, K NESSA *et al. J Clin Microbiol* 2000;**38**:1244–68

Prevalence of serum antibodies against bloodborne and sexually transmitted agents in selected groups in Somalia.
YA NUR, J GROEN, AM ELMI *et al. Epidemiol Infect* 2000;**124**:137–42

Recurrent urinary tract infections in postmenopausal women.
R RAZ, Y GENNESIN, J WASSER *et al. Clin Infect Dis* 2000;**30**:152–6

Women's sexual health after childbirth.
G BARRETT, E PENDRY, J PEACOCK *et al. Br J Obstet Gynaecol* 2000;**107**:186–95

New policy on circumcision—cause for concern.
EJ SCHOEN, TE WISWELL, S MOSES. *Pediatrics* 2000;**105**:620–34

Acceptibility of formulations and application methods for vaginal microbicides among drug-involved women—results of product trials in three cities.
TM HAMMETT, TH MASON, CL JOANIS *et al. Sex Transm Dis* 2000;**27**:119–24

Implications of asymptomatic endocervical leukocytosis in infertility.
MC OU, CS SU. *Gynecol Obstet Invest* 2000;**49**:124–6

Interleukin 1 receptor antagonist gene polymorphism in women with vulvar vestibulitis.
J JEREMIAS, WJ KEDGER, SS WITKIN. *Am J Obstet Gynecol* 2000;**182**:283–5

Sexual behaviour, STDs and risks for prostate cancer.
RB HAYES, LM PETTERN, H STRICKLER *et al. Br J Cancer* 2000;**82**:718–25

Incidence of erectile dysfunction in men 40 to 69 years old: longitudinal results from the Massachusetts male aging study.
CB JOHANNES, AB ARAUJO, HA FELDMAN *et al. J Urol* 2000;**163**:460–3

Recurrent epididymo-orchitis in patients with Behçet's disease.
VG KAKLAMANI, G VAIOPOULOS, N MARKOMICHELAKIS, P KAKLAMANIS. *J Urol* 2000;**163**:487–9

Hypertrophy of labia minora: experience with 163 reductions.
R ROUZIER, C LOUISSYLVESTRE, BJ PANIEL, B HADDAD. *Am J Obstet Gynecol* 2000;**182**:35–40

Would women trust their partners to use a male pill?
AF GLASIER, R ANAKWE, D EVERINGTON *et al. Hum Reprod* 2000;**15**:646–9