LETTERS TO THE EDITOR

Limited access to antiretroviral therapy for intravenous drug users in Europe

EDITOR,—M P Carrieri *et al*¹ reported that in France, among people infected by intravenous drug use, those who continued their intravenous drug use were less likely to receive antiretroviral treatment.

We have evidence that in Europe persons who acquired their HIV infection through intravenous drug use, regardless whether they stopped their intravenous drug use or not, have less access to antiretroviral treatment than persons who acquired their HIV infection through homosexual contact.

An anonymous questionnaire was distributed to inpatients and outpatients in HIV treatment centres in 11 European countries, from August 1996 to August 1997.² A total of 1366 persons with HIV infection participated in the study, more than half (53%) were infected through homosexual contact and 14% through intravenous drug use (26% in southern Europe).

Bivariate analysis and multivariate logistic regression, adjusting for other factors like gender, age, CD4 lymphocyte count, clinical status, income, education and region, showed that intravenous drug users were significantly less frequently treated with antiretroviral agents and slightly less often treated with a protease inhibitor containing treatment regimen than homosexual men (table 1).

In another European study (the Eurosida study³), performed in 1994 among 3122 persons with HIV infection, homosexual men were also found more likely to receive combination therapy than intravenous drug users (41% versus 22% respectively).

W SCHROOTEN
Y FLEERACKERS
R ANDRAGHETTI
C DREEZEN
R FINAZZI
L CALDEIRA
R COLEBUNDERS

Institute of Tropical Medicine, Nationalestraat 155,
B-2000 Antwerpen, Belgium

1 Carrieri MP, Moatti JP, Vlahov D, *et al*, and the MANIF 2000 Study Group. Access to antiretroviral treatment among French HIV infected injection drug users: the influence of continued drug use. *J Epidemiol Community Health* 1999;53:4-8.

2 Schrooten W, Florence E, Wilkins E, *et al*. Patterns of antiretroviral (ARV) use among HIV+ patients in Europe (Eurosida project). [Abstract]. *AIDS* 1998;12 (suppl 4):S43.

3 Lundgren J, Phillips N, Vella S, *et al*. Regional differences in use of antiretroviral agents and primary prophylaxis in 3122 European HIV-infected patients. *J Acquir Immun Defic Syndr Hum Retrovirol* 1997;16:153-60.

Reply

Our Belgian colleagues bring evidence from a European study that confirms a fact that has been already established in the US context¹: HIV infected drug users have significantly less access to antiretroviral treatment than other groups of HIV infected people. Socio-economic barriers of course play an important part in this situation but unfortunately clinical recommendations may also contribute to it; for example, recent HIV treatment guidelines suggest delaying prescription of HAART to active injection drug users until drug maintenance treatment is administered.²

The goal of our study,³ which is complementary to evidence such as the one presented by Schrooten *et al*, was to show that delayed access to treatment of active intravenous drug users can also happen in the context of a health system where free of charge care is guaranteed for HIV infection and by comparison inside the group of persons infected through injection drug use between those who stopped and those who continued active use. Conveying results of research may help better fighting discriminatory problems faced by intravenous drug users in the context of recent therapeutic progress.

J-P MOATTI

INSERM, Unit 379/Institut Paoli-Calmettes,
232 Bld Sainte Marguerite, 13272 Marseille Cedex 9,
France

1 Hu DJ, Byers R Jr, Fleming PL, *et al*. Characteristics of persons with late AIDS diagnosis in the United States. *Am J Prev Med* 1995;11:114-19.

2 Centers for Disease Control and Prevention. Guidelines for the use of antiretroviral agents in HIV-infected adults and adolescents. *MMWR Morb Mortal Wkly Rep* 1998;47(RR-5):43-82.

3 Carrieri MP, Moatti JP, Vlahov D, *et al*, Chesney M and the MANIF 2000 Study Group. Access to antiretroviral treatment among French HIV infected injection drug users: the influence of continued drug use. *J Epidemiol Community Health* 1999;53:4-8

Adjusted impact factors for comparisons between disciplines

EDITOR,—Despite controversy over the use of impact factors to measure scientific excellence,¹⁻⁴ they are widely used to evaluate the quality of academic departments, institutions, scientific journals, specific publications and the research of individual scientists. It seems reasonable to imply that a typical article from the *Lancet* with an impact factor of

18.0 is at a higher level of scientific excellence than a paper from a journal with an impact factor of 0.1, suggesting that the impact factor does carry useful information about scientific quality. However, obviously distorted conclusions may result when cross disciplinary comparisons are made. For example, the impact factors of the top two biochemistry/molecular biology journals are substantially higher than those of *Nature* and *Science*, the most prestigious journals in science, and over 10 times those of top epidemiology/public health journals.⁵ This surely does not mean that the best papers in molecular biology are better than publications in *Nature*, *Science* and the top epidemiology journals! The best work in each discipline should be regarded as equal in scientific excellence.

In fact, differences in impact factors between disciplines are largely attributable to factors unrelated to scientific quality.² These include citation habits, the interrelatedness of research projects and the number of related publications within a discipline, which is influenced by the total number of researchers working on related projects within a specialty, the quantity of papers published by individual scientists and publishing opportunity. When making comparisons within a discipline, non-quality related variations in impact factors also exist, but to a much lesser degree than cross disciplinary comparisons, which place some disciplines, such as epidemiology and public health, at an unfair disadvantage. However, given the current emphasis on accountability and quality assurance and the limitations of the current peer review system, the use of impact factors is likely to continue. An adjustment of impact factors is necessary for fair comparisons between different disciplines but has not been available in the medical literature.

Given the recognition that impact factors within a discipline quantify scientific excellence to a much greater degree, we construct an adjusted index called the discipline adjusted impact factor, obtained by dividing the paper specific impact factor or the average impact factor of the journal in which the paper was published by the average impact factor of the top three to five international non-review journals in each discipline. (Review journals tend to have very high impact factors for non-quality related reasons and were thus excluded from the comparisons.) The divisor of this index provides a weight to adjust the impact factor for cross discipline variations. For publications from multi-disciplinary journals such as *Nature* and *Lancet*, the average discipline specific impact factor in these journals, or alternatively the average impact factor of the top three to five international journals of that discipline, could be used as the dividend to construct their discipline adjusted impact factors. We illustrate in table 1 this adjustment method for the top journals in five disciplines.³ After adjustment, variations in the discipline adjusted impact factors of publications are more likely to reflect differences in quality and papers from different disciplines can be directly compared. The different conclusions drawn before and after the adjustment are obvious. The comparisons could be further improved by using impact factors of individual publications instead of average impact factors of journals.

The adoption of impact factors as a method of quality assessment and resource allocation could undermine the funding and perceived prestige of the public health sciences relative to disciplines such as

Table 1

Number of respondents	Patients with ARV therapy n (%)	Bivariate analysis OR (95% CI)	Multivariate analysis OR (95% CI)
Homosexual contact (n=733)	493 (67)	1	1
IVDU (n=192)	94 (49)	0.47 (0.33, 0.65)	0.51 (0.35, 0.75)
	Protease inhibitor containing tri-therapy n (%)		
Homosexual contact (n=493)	229 (46)	1	1
IVDU (94)	37 (39)	0.75 (0.47, 1.20)	0.98 (0.58, 1.66)

IVDU = Intravenous drug users.

Table 1 Unadjusted and adjusted impact factors of top five international journals in five disciplines (unadjusted impact factors are extracted from the 1996 Journal Citation Report[†])

Top five journals	Before adjustment				After adjustment			
	Public, environmental, occupational health	Biochemistry and molecularbiology	Cardiac and cardiovascular system	Mathematical physics	Public, environmental, occupational health	Biochemistry and molecularbiology	Cardiac and cardiovascular system	Mathematical physics
1	4.11	41.0	5.99	1.72	1.18	1.47	1.41	1.09
2	3.31	22.1	3.47	1.56	0.95	0.79	0.82	0.99
3	3.00	20.3	3.26	1.46	0.86	0.73	0.77	0.92
4	2.59	13.8	2.87	1.37	0.75	0.50	0.68	0.87
5	2.44	13.3	2.79	1.16	0.70	0.48	0.66	0.73

biochemistry. While there are legitimate questions concerning the validity of impact factors as a measure of quality,¹⁻⁴ we feel that if they have to be used, they should be properly adjusted using a method such as the one proposed here.

JIN-LING TANG
TZE WAI WONG

Department of Community and Family Medicine,
Faculty of Medicine, The Chinese University of Hong
Kong, Shatin, NT, Hong Kong

JOSEPH L Y LIU

Centre for Clinical Trials and Epidemiological
Research, Faculty of Medicine, The Chinese University
of Hong Kong, Shatin, NT, Hong Kong

Correspondence to: Professor Jin-Ling Tang.

- 1 Porta M. The bibliographic "impact factor" of the Institute for Scientific Information: how relevant is it really for public health journals? *J Epidemiol Community Health* 1996;50:606-10.
- 2 Seglen PO. Why the impact factor of journals should not be used for evaluating research. *BMJ* 1997;314:498-502.
- 3 Smith R. Unscientific practice flourishes in science. *BMJ* 1998;316:1036-40.
- 4 Taubes G. Measure for measure in science. *Science* 1993;260:884-6.
- 5 Institute for Scientific Information (ISI). 1996 *Journal citation reports: a bibliometric analysis of science journals in the ISI Database*. Philadelphia: Institute for Scientific Information Inc, 1997.

BOOK REVIEWS

Getting research findings into practice.

Edited by A Haines, A Donald. (Pp 184; £19.95). London: BMJ Books, 1998. ISBN: 0-7279-1257-7.

Professional practice (both in clinical, managerial or public health settings) frequently is not based on the best available scientific evidence. The reduction of this gap between professional practice and scientific evidence is

central for the "new paradigm" of evidence-based medicine, which emphasises the application (and not only the generation) of results from research. In this book, Haines and Donald have joined a group of leaders of the evidence-based medicine movement to tackle the causes of this gap and the ways to reduce it.

Despite its multiple authors, the chapters are arranged around a solid logic structure, so the coherence of the book is well preserved (with some minor exceptions such as the chapter of economic evaluations). The book suggests the steps that should be followed for the implementation of research findings. The topics considered in the book include the sources of information; strategies for finding and filtering the information; interventions for promoting the implementation of research findings; critical appraisal of the literature; evidence-based policy making; barriers and bridges to evidence-based clinical practice; conceptual frameworks for changing health professionals' behaviour; role of lay people in the implementation of health care research; role of decision support techniques in the implementation of research findings; and the specific problems of the implementation of results from economic evaluations.

The spectrum of topics covered, the actualised bibliography, and the readable format make this book useful for a wide audience, from clinicians interested in practice or teaching evidence-based medicine to purchasers, managers and health services researchers interested in promoting evidence-based care.

JAIME LATOUR-PÉREZ

Department of Public Health, University of Alicante,
Spain

How to write a paper. 2nd ed. Edited by G M Hall. (Pp 156; £13.95). London: BMJ Books, 1998. ISBN 0-7279-1234-8.

Who is going to write their first paper? Who has to write a paper soon? Who is in a sweat now writing a paper with the hope of catching

the attention from that (perhaps too much?) high ranking journal to their last arduous piece of research? All of them will have some help in this book. At a glance, *How to write a paper* looks like a basic guide for junior authors, and research degree students seem the best suited public for it. The original intention of the editor was to appeal to authors for whom English was not the first language. However, I think that many kind of authors would find something to learn in this book.

This is the second edition of a successful short book first published in 1994. Some new contributors and additional chapters have been added to the already attractive contents of the first edition, featuring experienced editors from some major British biomedical journals such as the *British Journal of Anaesthesia*, the *British Medical Journal* and the *Lancet*. The viewpoint of the editors is always important: sometimes, they could be forced to read your manuscript and to take a decision about it. You the author perhaps would like to know that the editor of the *British Medical Journal* does not like very much *Alice in Wonderland* quotations in scientific papers (chapter 2: Introductions). Or that, once you have it finished, it is a good idea to read aloud the title and the abstract of your manuscript to someone unfamiliar with the work (as "text that is easy to read is hard to write"; chapter 6: Titles, abstracts, and authors). Some recent debate issues, such as authorship versus contributorship (chapter 15) and electronic publishing (chapter 18) are also presented in the book. A suggestion for the third edition: to include a chapter on "How to answer the reviewers' comments". Many authors, editors and manuscript assessors could benefit from it.

ANA M GARCÍA

Department of Preventive Medicine and Public Health,
University of Valencia, Spain