difficulties with methodological rigour and interpreting the clinical findings for a primary care context, the results of randomised controlled trials may be of questionable validity.1 Systematic reviews and meta-analyses may offer ways to address the problems of methodological quality, but such reviews cover only limited topics and may themselves lack rigour. Nor will there ever be evidence from randomised controlled trials, systematic reviews, and meta-analyses to support all but a minority of the many interventions of everyday primary care.

Koki Tsuruoka and colleagues highlight our concerns about the use of appropriate end points of treatment in randomised controlled trials. Like them, we used a pragmatic method of defining end points. All antihypertensive drugs were allocated to group (i) even though a reduction in mortality and morbidity has been established with only relatively few drugs.2 Furthermore, Tsuruoka and colleagues' study raises issues about generalising results to countries where health systems and clinical practice may be very different.

Meakin and colleagues iterate our concern about the diagnostic label recorded in patients' notes and draw attention to the exclusion of patients who were referred or investigated. We too were concerned about the use of the first recorded problem as a primary diagnosis. Our methodology related interventions to diagnostic labels. We deliberately excluded patients sent for investigation and referral because investigations may modify diagnostic labels and referral may modify either diagnostic labels or the treatment plan. In our paper we insisted that the results should not be generalised. Interestingly, however, if the referral and investigation group is added back into the sample the proportion of drug interventions (72%) compares favourably with that reported by Fry,3 given the small sample size.

The main point of our study was not merely to estimate the proportion of evidence based interventions in general practice but to debate the appropriateness of methods used to assess evidence based practice. We consider it misjudged to compare percentages of evidence based interventions in different disciplines. It is now appropriate, however, to shift the debate to exploring alternative paradigms of evidence based care and consider how we can ensure that the increasing body of research evidence is made accessible to all practitioners.

> PARAMJIT S GILL Senior lecturer

Department of Primary Care and Population Sciences, Whittington Hospital, London N19 5NF

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- general practice. BMJ 1995;311:382-3.

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## Over the counter drugs

## Both doctors and pharmacists should prescribe better

EDITOR,—The prescribing of antibiotics is a complex issue. There is increasing agreement that this class of drugs is overprescribed and that the development of antibiotic resistance is a major clinical problem, particularly in hospitals.1 In general practice a concern is the prescribing of antibiotics for patients with a sore throat. Given that microbial cultures are difficult to undertake, however, some prescribers recommend the use of antibiotics under well defined conditions.2

Judith Hollis-Triantafillou's comments highlight the same problems in the context of over the counter prescribing of antibiotics by pharmacists.3 There is a danger, though, in concluding from her article that restricting antibiotics to prescription only would solve the problem. This is not the case, as prescribing records in Britain show. The answer is more likely to lie in making both medical and pharmaceutical practice evidence based, but this may not be easy.4 The pharmaceutical industry, pharmacists, and doctors have vested interests. To suggest, as Hollis-Triantafillou seems to, that any one group is more altruistic than another is perhaps disingenuous. If prescribing decisions were more transparent and evidence based all parties, not least our patients, would benefit.

Hollis-Triantafillou also conveys her exasperation at having her cheap expectorant replaced by a more expensive, unidentified alternative remedy by the pharmacist. Perhaps the pharmacist was right, given that evidence for the efficacy of expectorants is so sparse.

In writing this riposte, we are not trying to be defensive on behalf of pharmacists but wish to point out that there is poor prescribing by both doctors and pharmacists. The prescribing of depot cortisone in lieu of antihistamines for a minor allergy, described by Hollis-Triantafillou, is perhaps an example. However, there is no easy solution. The answer perhaps lies in reexamining methods of persuading both doctors and pharmacists to be better prescribers, reducing patients' expectations, toning down overenthusiastic advice by some pharmaceutical manufacturers, and providing more evidence based updated guidelines and advice (as is being done through initiatives such as the Cochrane Collaboration).

Professor of clinical pharmaceutics Postdoctoral fellow Centre for Evidence-Based Pharmacotherapy,

A LI WAN PO

School of Pharmacy, University of Nottingham, Nottingham NG7 2RD

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### Working party will see whether antimicrobials should be available

EDITOR,—The series of articles on the availability of over the counter of drugs that were previously available only on prescription1 is important in view of the increasing number of drugs licensed in this way. The British Society for Antimicrobial Chemotherapy has taken a keen interest in the fact that people now have easier access to antimicrobials because, unlike any other class of drugs, antimicrobials have an ecological dimension. While formal proof of a causal link between use of antimicrobials and antimicrobial resistance of microbes remains elusive,2 many professionals concerned with infection are convinced about the connection—as is **Judith** Hollis-Triantafillou.3

In response to the possible availability of antimicrobials over the counter, the society has set up a working party with the remit of producing recommendations on the desirability or otherwise of such a change and on the conditions under which it might occur. As joint convenors of the working party we would be interested to hear from any readers who have opinions on this matter.

> R G FINCH Professor of infectious diseases

City Hospital, Nottingham NG5 1PB

D S REEVES

Southmead Hospital, Bristol BS10 5NB

Professor of medical microbiology

- 1 Blenkinsopp A. Bradley C. Patients, society, and the increase in

## GPs' rate of recommending over the counter drugs varies

1996;312:644. (9 March.)

EDITOR,—In recent years the number and range of drugs available over the counter has increased dramatically. Limited evidence suggests that the general public may respond to this by increasing self treatment.12 Much less evidence exists, however, about how doctors are responding to the new scenario created by the deregulation of many medicines. It has been suggested that doctors ought at least to start making more systematic inquiries about patients' prior use of over the counter drugs.3

In a preliminary study of general practitioners' current practice we selected six general practitioners working in practices in the west midlands, which contrasted in terms of their location (rural, suburban, or inner city) and fundholding status. At the end of 3030 consecutive consultations (505 each) the general practitioners recorded whether the patient had used over the counter drugs before the consultation, whether they had recommended an over the counter drug, and whether they had issued a prescription (table 1). They also collected data

Table 1—Frequency with which patients admitted to prior use of over the counter (OTC) drugs and general practitioners recommended OTC drugs or issued prescriptions. Figures are numbers (percentages) of consulta-

| Practice | Consultations for which data were returned (n=505) | Patient<br>admitted to<br>prior use of<br>OTC drug | OTC drug        | Prescription<br>issued | Prescription<br>issued and<br>OTC drug<br>recommended |
|----------|--|--|-----------------|------------------------|---|
| 1        | 444 (87.9)   | 50/258 (19.4)                                      | 10/444 (2.3)    | 315/406 (77.6)         | 5/406 (1.2)   |
| 2        | 463 (91.7)   | 130/375 (34.7)                                     | 118/463 (25.5)  | 113/369 (30.6)         | 106/369 (28.7)  |
| 3        | 464 (91.9)   | 179/448 (40.0)                                     | 80/464 (17.2)   | 247/445 (55.5)         | 44/445 (9.9)  |
| 4        | 496 (98.2)   | 208/495 (42.0)                                     | 186/496 (37.5)  | 387/495 (78.2)         | 147/495 (29.7)  |
| 5        | 459 (90.9)   | 77/449 (17.1)                                      | 35/459 (7.6)    | 268/449 (59.7)         | 16/449 (3.6)  |
| 6        | 477 (94.5)   | 13/473 (2.7)                                       | 15/477 (3.1)    | 250/453 (55.2)         | 6/453 (1.3)   |
| Total    | 2803 (92.5)  | 657/2498 (26.3)                                    | 444/2803 (15.8) | 1580/2617 (60.4)       | 324/2617 (12.4)                                       |

\*Some responses were missing.

on which over the counter drug they had recommended and the reason for the recommendation.

Table 1 gives the number and proportion of consultations at which information on prior use of an over the counter drug was elicited and at which a prescription was issued or an over the counter drug was recommended, or both. Over the counter drugs were recommended during 444 consultations, but the actual drug was stated in only 413. The six general practitioners varied considerably in their rates of recommending over the counter drugs (from 2.3% to 37.5%) and issuing prescriptions (from 30.6% to 78.2%). Recommending an over the counter drug seems to be a management option that is used in addition to, rather than instead of, issuing a prescription.

Most recommendations (305/413) were for simple analgesics, especially paracetamol preparations (184/413). Medicines that have changed since 1990 from being available only on prescription to being available in pharmacies hardly featured (8/413). The main reason doctors gave for recommending over the counter drugs was that they were cheaper for some patients. Increasing patient autonomy or capacity for self care and potential savings in the practice's prescribing budget did not emerge as major reasons for recommending over the counter drugs.

> COLIN BRADLEY Senior lecturer IOYCE KENKRE Project officer ROSALIND TOBIAS Research associate DAWOOD DASSU Research associate, statistician AMJID RIAZ Clinical research fellow

Department of General Practice, University of Birmingham, Birmingham B15 2TT

- 1 Blenkinsopp A, Bradley C. Patients, society, and the increase in
- self medication. BMJ 1996;312:629-32. (9 March.)

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#### Telematics will be useful in providing information

EDITOR,—The BMJ's recent series on over the counter drugs and self medication14 recognises the increasing empowerment of patients with regard to self care and analyses the self medication process. One of the critical issues of this process is the provision of relevant information and education to patients. Community pharmacists will have an even greater role in providing the population with help, advice, and information about self medication products and the circumstances in which a doctor should be consulted; thus they need permanently updated information and education on over the counter drugs and guidelines on how to use them to treat minor, everyday ailments.

On the eve of the information society, use can be made of the information highways to provide lay people and professionals with access to relevant electronic information and advice on health related topics.5 Consequently, the European Union is funding a series of research and development projects on the applications of telematics for health. In particular, TESEMED (TElematics in community pharmacies for responsible SElf MEDication) is a continuing project devoted to developing and testing prototypes of telematic systems to be used by community pharmacists and patients to get information and education on the appropriate use of over the counter drugs.

Technologies and approaches considered include multimedia systems running in stand alone personal computers for the applications aimed at pharmacists, and touch screen information kiosks for the patient information systems. Dissemination and updating of the applications will be done through Internet facilities, including open and restricted services on the worldwide web (see http://www.sema.es/ projects/TESEMED). A clear advantage of telematics in providing community pharmacists with updated information on over the counter drugs as well as continuous training on pharmaceutical care is that this technology overcomes the pharmacists' geographical dispersion and shortage of time.

Finally, one aspect of TESEMED that will contribute to the dissemination of the information and the impact of the project is the participation of the European organisations of pharmacists (the Pharmaceutical Group of the European Union) and manufacturers of over the counter drugs (the European Proprietary Medicines Manufacturers' Association) as partners in the consortium, in addition to academic institutions and specialists in health informatics.

TESEMED project coordinator

Department of Medical Informatics Institute Municipal d'Investigació Mèdical, Carrer del Doctor Aiguader 80, E-08003 Barcelona,

> M I LOZA Associate professor

School of Pharmacy, University of Santiago de Compostela, E-15706 Santiago de Compostela,

> E D AHLGRIMM President P BAFTENS Secretary general

Pharmaceutical Group of the European Union, Sq Ambiorix 13, B-1040 Brussels,

> M SOSA-IUDICISSA Scientific officer

European Commission-DG XIII, Av de Beaulieu 29, 3/50, B-1160 Brussels, Belgium

Belgium

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#### GPs lack awareness of non-steroidal anti-inflammatory drugs available over the counter

EDITOR,—Neither James G Kennedy's editorial on over the counter drugs1 nor Jo Erwin and colleagues' short report on general practitioners' views on over the counter sales by community pharmacists2 mentions the availability of nonsteroidal anti-inflammatory drugs over the counter. I wish to highlight findings from my survey.3

One hundred general practitioners were sent a standard questionnaire; 70 questionnaires were returned and analysed. Twenty four respondents said that they regularly asked their patients whether they bought non-steroidal antiinflammatory drugs over the counter; the rest

either did so occasionally or never did so. Only a few practitioners were aware that some of the non-steroidal anti-inflammatory drugs—for example, benorylate (14)— were available over the counter, but there was greater awareness of the availability of other drugs, such as ibuprofen (60). When asked about the brand names available without prescription most respondents had not heard of some of the brands-for example, Proflex (56)-although most had heard of Nurofen (51); both are brands of ibuprofen. A substantial proportion of the respondents did not know the contents of non-steroidal antiinflammatory drugs available over the counter. Most of the respondents (57) thought that they were poorly informed about the availability of the drugs without prescription, and most (65) thought that the firms marketing over the counter drugs should inform general practitioners of their availability. Many rheumatologists have expressed similar concerns in the past.4

Lack of awareness of the availability of some non-steroidal anti-inflammatory drugs without prescription is compounded by the variety of brand names under which these drugs are marketed. Further problems may be encountered by the absence of lists of these drugs in reference texts commonly used by the medical profession. Consideration should be given to listing these preparations in such publicationsfor example, the British National Formulary and the Data Sheet Compendium. OTC Index lists all medicines available over the counter and should help general practitioners towards more rational prescribing. Many patients with rheumatic disorders use self prescribed drugs,5 and both general practitioners and patients should be aware of the possibility of adverse reactions resulting from duplication of treatment or an undesirable combination of drugs obtained over the counter.

Consultant in rheumatology and rehabilitation

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# Errors by locums

Withington Hospital

Manchester M20 2LR

## Each locum should carry a logbook

EDITOR,—There is an urgent need to review the rules that govern the employment of locum doctors in NHS hospitals. Examples of substandard practice given in the BBC Radio 4 programme File on Four on 6 April, the errors reported by John Warden, and recent personal experience all show the need for this. A working group on this subject reported to the chief medical officer at the Department of Health early in 1995,2 and its recommendations are still under consideration.

These various reports show that the welfare of patients continues to be at risk because of the practice of some locums, and there is currently no effective system of communicating a warning of such experiences to potential employers of these locums. Reports on the performance of locums, most of whom provide a valuable service, must be fair, but the clear advice of the General Medical Council must be followed: "you must protect patients when you believe that a colleague's conduct, performance or health is a threat to them...the safety of patients must come first at all times."3