position of having to follow "always try" protocols which they do not support; their only alternative is the exercise of unlicensed discretion. It is thus as much to regulate that inappropriate exercise of discretion as to prevent futile resuscitation attempts, that guidelines are to be welcomed.

We suggest that the algorithm drawn up by Marsden and colleagues could form the useful basis of a discussion by a group ideally working under the joint auspices of the UK and European Resuscitation Councils. In facing difficult situations ambulance staff deserve the clarity of instruction that definitive guidelines would bring.

P D DONNELLY
Senior lecturer

Centre for Applied Public Health Medicine,
University of Wales College of Medicine,
Cardiff CF1 3NW

C F M WESTON
Senior lecturer

Department of Cardiology,
Pinderfields Hospital,
Wakefield WF1 4DQ

- 1 Marsden AK, Ng GA, Dalziel K, Cobbe SM. When is it futile for ambulance personnel to initiate cardiopulmonary resuscitation? *BMJ* 1995;311:49-51 (1 July.)
- 2 Weston CFM, Burnell CI, Jones SD. Failure of ambulance crew to initiate cardiopulmonary resuscitation. *Resuscitation* 1995; 29:41-6.

Pig sticking injuries are no joke

EDITOR,—Tim Owen makes the serious allegation of fraud about an article published in the *BMJ*, which he does not even reference.¹ I assume that he is referring to an editorial I wrote that recommended safe hunting practices.² This was based on a case series of 20 injuries caused by pigs published in the *Medical Journal of Australia*,³ and Owen should have viewed the published pictures of a gangrenous bowel, sucking chest wound, and scrotal injury before making statements about scientific validity.

Perhaps Owen has not been responsible for treating people with severe injuries caused by pigs, and I doubt if he has conducted postmortem examinations on young people gored to death by feral animals. I have, and during six years in Papua New Guinea I learnt that pigs turn rapidly when injured and that a careless villager who hunts with only one spear is at grave risk. I used every possible opportunity to persuade young men to go pig hunting adequately armed. I found that telling humorous tales of pig sticking in medieval Britain was an effective way of conveying serious health education messages to them. Clearly Owen

remembers the article: I hope that should he ever go hunting wild animals he also remembers to keep both barrels of his shotgun fully loaded.

PAUL GARNER
Senior lecturer

Liverpool School of Tropical Medicine,
Liverpool L3 5QA

- 1 Owen T. Handling scientific fraud. *BMJ* 1995;311:262. (22 July.)
- 2 Garner P. Avoiding injuries caused by pigs. *BMJ* 1989;298:848.
- 3 Barss P, Ennis S. Injuries caused by pigs in Papua New Guinea. *Med J Aust* 1988;149:649-56.

New measures can help to measure economic "externalities"

EDITOR,—Peter Draper and Hugo Crombie ask whether the health sector can make a useful contribution to macroeconomic policy.¹ This marks an important divergence from the school of thinking that health matters should be treated in economic terms entirely as consumption with no (monetised) return on expenditure.

An economic framework which understands how health outcomes themselves feed back into the process of sustainable wealth creation offers a starting point. For the purpose of discussion, we have, for example, created a pilot index of sustainable economic welfare for the United Kingdom.² Starting from a standard measure of personal consumption, the index makes a series of adjustments for factors which relate to human welfare and environmental sustainability. While the index does not purport to establish a single number as "true" welfare, it does allow an important assessment of relative performance over time.

Applied to the British economy, the index shows a striking difference to trends in gross national product, the most cited macroeconomic indicator of progress. Gross national product per capita was 2.3 times greater in real terms in 1990 than it was in 1950, with an average year on year growth rate of 2.1%. In contrast, there was virtually no overall growth in the index per capita over the same period. In 1990 the index was just 3% higher than it was in 1950, with an average growth rate of 0.1%. The difference between gross national product and the index per capita was particularly great from the mid-1970s onwards. Whereas, over the first half of the study (1950-74) sustainable economic welfare rose broadly in line with gross national product, in the past 15 years it has fallen dramatically—

declining at an average rate of almost 5% a year over the 1980s.

The reason seems to be a rising toll of social and environmental costs that are increasingly reflected as real losses in terms of welfare. The "externalities" ignored by macroeconomics are coming home to roost. In short, for all its sophistication, macroeconomic policy still does little more than assume that if one key indicator of economic output (gross national product) goes up, sustainable welfare will improve. Health professionals have much to offer in the development of new indicators that can contribute to a more sophisticated debate on the part of economists and policymakers.

ED MAYO
Director

New Economics Foundation,
London E1 1JE

- 1 Draper P, Crombie H. Health and economic policy. *BMJ* 1995;311:1-2. (1 July.)
- 2 Jackson T, Marks N. *Measuring sustainable economic welfare: a pilot index for the UK*. London: New Economics Foundation and Stockholm Environment Institute, 1994.

BMJ should declare its own conflict of interest

EDITOR,—I have noticed that you encourage the declaration of conflict of interest and source of funding of authors of papers published in the *BMJ*. I am concerned, however, that the *BMJ* fails to declare its own conflict of interest created by carrying advertisements for pharmaceutical products when, in the same edition, papers are published on related topics.

On 26 November 1994 there was a large, glossy, two page spread for co-amoxiclav in the same edition as a review article on the diagnosis and management of sinusitis in which amoxycillin (with or without clavulanic acid) is recommended; on 7 January 1995 there was a two page advertisement for filgrastim only a few pages from a review article on bone marrow transplantation in which the authors indicate that such agents are useful to reduce neutropenia; on 8 April 1995 tinzaparin was advertised a few pages away from an article on recent advances in orthopaedic and trauma surgery, a serious complication of which is the development of deep venous thrombosis. These examples are from editions of the *BMJ* taken at random from the shelf of a hospital library, but similar examples may be found in virtually every edition.

I do not wish to imply that the authors of these articles were in any way biased towards any particular product, but I fear that the *BMJ* may be unduly influencing readers by coincidentally publishing such advertisements. Advertising is obviously a major source of income for the journal (£4368 a week for a two page display advertisement) and presumably is a cost effective way for pharmaceutical companies to influence the prescribing habits of doctors. I am concerned that the journal may be, unwittingly perhaps, aiding the industry in applying that influence.

The *BMJ* has a notable tradition, particularly in recent years, for being a little smug and rather holier-than-thou. Perhaps, before preaching at potential authors, it should take a look at its own standards, get its own house in order, and declare its own interest when carrying advertisements.

D C MABIN
Consultant paediatrician

West Suffolk Hospital,
Bury St Edmunds,
Suffolk IP33 2QZ

** The longstanding policy of the *BMJ* is that the advertising department does not know which papers are going to appear in the journal and the editorial department does not know which

How pig sticking injuries occur

advertisements are going to appear. Advertising thus cannot be sold on the condition that it will be linked to editorial material, but sometimes, by chance, articles and related advertising will appear in the same issue. The articles may be perceived by the advertisers as being advantageous for their products—but just as often they will be disadvantageous.

We might extend out policy by looking at all papers and advertisements together immediately before publication and removing the advertisements that overlap with editorial material. This is what the *New England Journal of Medicine* does. Dr Mabin illustrates, however, that this policy can be difficult to implement: should we really cancel an advertisement for an anticoagulant because an article on recent advances in orthopaedics discusses, among many other issues, the use of prophylactic anticoagulation for joint replacement—particularly when the author is scornful of the conventional wisdom that anticoagulation is vital? With six editorials, around 10 papers, and as many as 50 letters each week there is a high chance of some overlap with advertisements for drugs as commonly used as antibiotics, antihypertensives, anticoagulants, and antidepressants. And how much overlap matters? A further practical problem is that—unlike the *New England Journal of Medicine*—the *BMJ* finally comes together in the week of publication, making it impossible for us to remove advertisements. To do so we would have to put the *BMJ* together earlier, making it less topical.—EDITOR

Biomedical journals not dead yet

Electronic publications are hard to access

EDITOR,—We are sure that the paper free electronic dissemination of scientific journals is further away than Tony Delamothe and Ronald E Laporte and colleagues envisage.^{1,2} Computer literacy is not widespread, even in the United States, and is not helped by the computer industry, which often seems to conspire to make the use of personal computers an ordeal. Manuals are often written without simple sequential instructions to help the uninitiated, and this combined with repetitive, and often unnecessary, upgrading has not facilitated wider understanding.

For individual users the mystique and “technobabble” are never more apparent than when they use a modem to access remote services: the initiation strings and download protocols that are vital for successful connection are often impenetrable. Moreover, on line running costs are often high, and even those who connect to a network are often disappointed with the interface that they receive. For example, CompuServe charges \$25 an hour for database searching and has indifferent interface software. Equally, while the BMA's Medline service is an advance, it is not supported by a graphical user interface, and, although it can be menu driven, success requires considerable practice. Indeed, this system itself declares that inexperienced users will find only 15% of the information available about a particular topic.

Against this background we agree with Christopher Zietinski, who suggests that there are huge problems inherent in replacing traditional books and journals with electronic systems to the Third World.³ For library access by a large number of borrowers, however, that idea will surely come to fruition eventually. But until the costs of accessing networks come down and the quality and efficiency of the interfaces provided improve, we believe that widespread individual use will not progress. It may also be that, as with facsimile machines, individual as opposed to corporate use of such technology will always be small, whatever marketing skills are used to convince people other-

wise. Certainly, we believe that predictions of the death of the traditional format for biomedical journals are premature and that paper journals will continue to have a role for most individual users for some time.

S E QUINN
Lecturer in otolaryngology
G S KENYON
Consultant in otolaryngology

Royal London Hospital,
London E1 1BB

- 1 Delamothe T. BMJ on the Internet. *BMJ* 1995;310:1343-4. (27 May.)
- 2 LaPorte RE, Marler E, Akazawa F, Sauer F, Gamboa C, Shenton C, et al. The death of biomedical journals. *BMJ* 1995;310:1387-90 (27 May.)
- 3 Zielinski C. New equities of information in an electronic age. *BMJ* 1995;310:1480-1. (10 June.)

Whimsical titles are deeply unhelpful

EDITOR,—The advantages of electronic biomedical publishing are many: savings in terms of printing, paper, postage, library space, and time taken to reach readers and an ever decreasing requirement for libraries to be reliable and a consequent increase in the control that users have in obtaining information. It will eventually be possible to obtain the full text of journals, but in the first instance this will involve downloading a list of contents and structured abstracts.¹

Many published papers have vague or misleading titles—for example, “Trouble in the potting shed” and “Airs, waters, places.” These editorials relate to infection with *Legionella longbeachae* and the adverse effects of air conditioning, respectively. Their titles are short and catchy and may be enjoyed during a leisurely browse through a journal. When they are scanned for example, during the preparation for examination, however, they are a hindrance. A selective approach to reading a journal is facilitated by a title that broadly categorises an article's content. When people read a paper journal or a full text electronic version they can easily clarify obscure titles. Partial text electronic coverage, however, will occasionally leave readers bewildered about the broad category into which the contents of a paper belong. And, though the contents can be checked by a request for a reprint of the article, this defeats one of the main advantages of electronic publishing—that of accessibility. As partial text coverage may be the norm for several years, paper journals may not give up easily.

JONATHAN R KERR
Senior registrar in microbiology

Belfast City Hospital,
Belfast BT9 7AD

- 1 Delamothe T. BMJ on the Internet. *BMJ* 1995;310:1343-4. (27 May.)
- 2 Trouble in the potting shed. *Lancet* 1990;336:151-2.
- 3 Airs, waters, places. *Lancet* 1987;iii:1062-3.

Unreliability of reports of hypoglycaemia by diabetic patients

EDITOR,—M R Kiln¹ suggests that the study by Simon Heller and colleagues² casts doubt on the validity of controlled studies of hypoglycaemia, citing particularly those studies to investigate the hypothesis that the use of human insulin affects the experience of hypoglycaemia in patients with insulin dependent diabetes mellitus. Heller and colleagues' study provided data supporting the need to involve the relatives of patients with diabetes when making reliable estimates of the experience of hypoglycaemia. Kiln references our study, published in the *BMJ* in 1993,³ when stating that “most scientific studies have not included partners” of patients in their protocols.

This is not justified. We share Kiln's view of the importance of including information from patients' relatives and carers when assessing the risk of hypoglycaemia. We included information from the partners of our patients in our estimates of hypoglycaemia in the referenced research study, and we stated this clearly. The published literature may not be quite so naive as Kiln suggests.

ALBERTO MARAN
Juvenile Diabetes Foundation
research fellow

Cattedra Malattie di Ricambio,
Univesita di Padova,
Padua, Italy

STEPHANIE A AMIEL
R D Lawrence professor of
diabetic medicine

Department of Medicine,
King's College School of Medicine and Dentistry,
London SE5 9JP

- 1 Kiln MR. Unreliability of reports of hypoglycaemia by diabetic patients. *BMJ* 1995;310:1407. (27 May.)
- 2 Heller S, Chapman J, McCloud J, Ward J. Unreliability of reports of hypoglycaemia by diabetic patients. *BMJ* 1995;310:440. (18 February.)
- 3 Maran A, Lomas J, Archibald HR, Macdonald I, Gale E, Amiel S. Double blind clinical and laboratory study of hypoglycaemia with human and porcine insulin in diabetic patients reporting hypoglycaemia unawareness after transferring to human insulin. *BMJ* 1993;306:167-71.

Information on sugar free medicines is readily available

EDITOR,—In his editorial on medicines that contain sugar Iain C Mackie states that the campaign to encourage the use of sugar free medicines in the north west of England met several hurdles, one of which was the fact that the doctors prescribed medicines containing sugar and rarely offered sugar free alternatives.¹ This was because the doctors “did not always have the time to look through the *British National Formulary* or *MIMs* to find a sugar free variety.”

The National Pharmaceutical Association (which represents around 10 000 community pharmacies) produces a comprehensive, easy to use leaflet on sugar free medicines. The leaflet lists these medicines both alphabetically by brand or generic name and also by therapeutic category, so it can be referred to quickly without the need to search through lengthy texts. Most pharmacists who are members of the National Pharmaceutical Association will have access to a copy of the leaflet and can use it to help general practitioners prescribe alternatives to medicines containing sugar. General practitioners who would like a copy of the leaflet for their own use can obtain one (cost £3) from the association.

MICHELLE STYLES
Head of information services

National Pharmaceutical Association,
St Albans,
Hertfordshire AL1 3NP

- 1 Mackie IC. Children's dental health and medicines that contain sugar. *BMJ* 1995;311:141-2. (15 July.)

Advice to authors

We prefer short letters that relate to a recently published article and we are unlikely to publish letters longer than 400 words and containing over five references. Letters may be shortened. Your letters should be typed with double spacing and include a word count. All authors need to sign the letter and provide one current appointment and address. We encourage you to declare any conflict of interest. Please enclose a stamped addressed envelope if you require an acknowledgment.