Letters

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Rapid assessment of chest pain

"Casualty" is outdated term for "emergency medicine"

EDITOR—Rapid assessment of chest pain continues to attract the attention of healthcare planners and providers involved in the management of this common emergency. Wood et al's editorial on this subject makes cogent arguments for a clinical trial to assess the impact of rapid medical and surgical management of exertional angina.[1]

We are concerned at the terminology used by Wood et al. The term that they use—"casualty"—is outdated and has long been replaced by the term "accident and emergency medicine" or, increasingly, "emergency medicine." It reflects ignorance of the role that trained specialists in emergency medicine have in the assessment of suspected chest pain.

Modern emergency departments, under the supervision of senior doctors trained in emergency medicine, use a wide variety of diagnostic tools not mentioned by Wood et al, including cardiac markers and continuous ST segment monitoring, to stratify risk for patients presenting with chest pain. The outmoded concept of casualty officers finding it difficult to distinguish between cardiac and non-cardiac pain fails to acknowledge the developments in emergency medicine that have taken place over the past two decades, particularly in the assessment and management of acute chest pain of suspected cardiac origin by senior emergency physicians.

It is regrettable that the *BMJ* perpetuates the use of such an outdated term as casualty. All staff who deliver emergency care know that specialists in emergency medicine provide a specialist opinion for patients presenting with acute chest pain. The role of multidisciplinary care in the provision of quality emergency medicine is a fairly modern concept. Cooperation and liaison between emergency doctors and cardiologists in the management of patients with chest pain is one example of this. It is disappointing that this editorial has failed to acknowledge the role of trained emergency specialists.

We would appeal to the *BMJ* that the term casualty as used in this editorial should suffer a similar fate to the term "accident" and be banished from use in the *BMJ* in the future.[2]

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1 Wood D, Timmis A, Halinen M. Rapid assessment of chest pain. *BMJ* 2001;323:586-7. (15 September.)
2 Davis RM, Pless B. BMJ bans "accidents." *BMJ* 2001;322:1321-2. (2 June.)

Chest pain clinics may be one step forward, two steps back

EDITOR—We disagree with Wood et al on the role of chest pain clinics in the rapid assessment of pain.[1] We believe that the value of such clinics will be considerably reduced if too much emphasis is placed on excluding cardiac ischaemia without achieving a definite diagnosis to explain the symptoms.

The authors' comment purely from the point of view of a cardiologist. They barely mention non-cardiac chest pain and the role of other medical specialists, which we think are an essential part of all chest pain clinics. We firmly believe that all patients with chest pain should be initially reviewed in emergency departments. Chest pain clinics in Australia and the United States are for inhouse referral only. General practitioners do not refer patients directly to a chest pain clinic when an urgent elective consultation by a cardiologist can be arranged.

We believe that the authors greatly overstate the reassurance given by rapid access clinics. Most patients with non-cardiac chest pain will have persistent symptoms, an impaired functional status, and many representations. The authors seem to be under the misapprehension that if chest pain clinics can rule out a cardiac cause, the job is done. However, almost two thirds of all presentations of chest pain to emergency departments are non-cardiac in origin.[2]

Non-cardiac chest pain is a heterogeneous syndrome with considerable overlap of symptoms, accounting for around 2-5% of all emergency presentations.[3] A greater emphasis on correctly diagnosing non-cardiac chest pain is needed. If this is not done, many patients will simply re-present. Up to 39% of patients with chest pain present again to hospital within four months.[4] This causes prolonged distress and reduced quality of life and will overload the new clinics.

The issue of chest pain clinics is not simple. Concerns include a lack of reassurance for patients with non-cardiac chest pain, partly because the diagnostic process is inadequate for this group. Long term clinical outcome data and the related social and economic costs are lacking. Non-cardiac chest pain has for too long been viewed as a difficult syndrome to diagnose and treat. An adequately coordinated response to this challenge does not exist. All health professionals need to work together to take the next step forward.

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Wrong biochemistry results

Companies and Medical Devices Agency must act to prevent wrong results

EDITOR—In their editorial Ismail and Barth discuss the possibility of getting wrong biochemistry results, particularly when immunoassays are done.[1] Laboratories try to

Readings showing that female testosterone values may be analytically incorrect if preceded by oestradiol assay

Example	Testosterone	Oestradiol + testosterone
1*	3.9	–
2	2.6	6.8
3	2.7	6.0
4	3.9	7.0
5	3.6	5.7
6	1.7	4.0
7	1.9	3.8

*Lead-in sample; same sample as in example 4.

detect these problems and provide an accurate, clinically relevant result. But the large number of assays done has resulted in widespread reliance on automation, particularly for hormones, and the "one size fits all" approach inherent in this makes the likelihood of inaccurate results quite high.

What is needed is fit-for-purpose assays on these automated platforms. We are aware, though, of the problems that this may present: we have experienced difficulty in persuading a company that the female testosterone values that its machine produces are analytically incorrect and may lead to inappropriate clinical action if preceded by an oestradiol assay (table). The fact that we elicited similar findings from other centres through a computer mailbase and added this weight of evidence to ours did not matter to the company or, worryingly, to the Medical Devices Agency.

Until companies recognise that, in a clinical governance setting, no-blame reporting is constructive criticism requiring positive action, then inappropriate interventions will continue to affect patients. More critical oversight of analysis and its clinical implications by the Medical Devices Agency is vital. We need confidence that any problem will be addressed either cooperatively or by effective monitoring.

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Information on incidents with consequences for health should be collected centrally

Editor—Like Ismail and Barth, we expect analytical interference in immunoassays to have a greater impact in the future.[1] Paradoxically, the increased degree of automation has led laboratory managers to believe that, once automated, assays no longer need supervision by professionals competent in immunoassay. Yet a vital component of the immunochemical assay is antigen-antibody reactions, which may be influenced by several factors, including patient-specific interference.

We disagree with the view that quality assurance schemes can do little about this. During the past five years the Swedish quality assurance organisation EQUALIS (external quality assurance in laboratory medicine in Sweden) has distributed serum samples suspected of containing interferents, such as heterophilic antibodies or antiligand antibodies, as part of its endocrinology survey.

Participants are presented with a brief history and are asked to provide results from assays judged to be informative, together with an evaluation of their data in relation to the question at hand and suggestions for further investigation. The data obtained indicate whether generally available assay methods are affected by patient-specific interferents and which diagnostic companies are involved; they can also alert participants to the possibility that their results may be compromised by analytical interference.

This scheme provides a comprehensive laboratory evaluation of problematic samples not necessarily affected by interferents. Practical knowledge regarding the detection and elimination of interferents is also highlighted at annual meetings for participants, which give opportunities for discussing information. The main drawback is the limited number of participating laboratories due to the limited amount of serum that can be obtained from each patient.

The confusion created by false values may result in missed diagnosis, unnecessary prolongation of the laboratory investigations, or even incorrect treatment. For instance, it was observed soon after the introduction of an automated system for thyroid hormone measurements that total and free triiodothyronine values were much too low in many patients.[2] This information, however, was withheld by the company concerned, and evaluation of the results was left to the doctors. Doctors must therefore be informed of the risk of analytical interference in methods used for laboratory evaluation—for example, through journals.[3]

Diagnostic kits vary in their sensitivity to analytical interference. The Food and Drug Administration takes action against nonserious diagnostic companies and prohibits sales of unreliable products in the United States.[4] In Europe, however, this problem has essentially been ignored. Hopefully, future European Union directives on in vitro diagnostic products will improve the situation. The vigilance procedure implies that information on incidents with consequences for a patient's health should be collected and evaluated centrally.[5]

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Interdepartmental cooperation may help avoid errors in medical laboratories

Editor—Ismail and Barth in their editorial on laboratory errors update our knowledge on analytical interferences in immunoassays and emphasise the need to alert clinicians to possible, albeit rare, wrong biochemical results.[1] Kilpatrick and Holding report that 45% of results for urgent requests from accident and emergency units and 29% of those from admission wards are never accessed through the ward terminal.[2] They emphasise the need to control and improve all steps, from requesting tests to interpreting results and using the total testing process to improving efficacy in the decision making process and in the management of patients.

Although there are numerous studies on errors in medicine, there is a shortage of scientific evidence for documenting the types of laboratory errors and their frequency, and few studies consider the clinical impact of laboratory errors on medical and economic outcomes. However, a large percentage of laboratory problems have been shown to occur in the preanalytical and postanalytical phases, with fewer mistakes occurring during the analytical steps.[3 4] As most of these problems depend on flaws in healthcare systems rather than classic laboratory errors, they should be defined as patient investigation errors.

Moreover, these errors often affect the management of patients, both directly and indirectly, because they are associated with inappropriate care, leading to negative medical and economic outcomes.[3] These problems can be reduced by technological improvements, mainly in information technology. For example, handwritten test requests could be avoided, and bar codes containing numerous data, including patient identification and clinical details, could be used. Tests could also be requested on a single label, and results could be communicated electronically. A large body of evidence shows, however, that important differences in the quality of laboratory

testing and in error rates depend on the staff and their training.[5]

This underlines the importance of human resources in preventing and correcting laboratory errors. The greatest possible reduction in laboratory errors is likely to depend on interdepartmental cooperation designed to improve the quality of the collection of specimens and dissemination of data. Further studies are therefore required, and every effort should be made to achieve a more satisfactory definition of laboratory errors, which should be classified on the basis of their real or potential effect on patient outcomes. Moreover, remedies should be found to reduce all errors in commission and omission, particularly those that are closely related to risk for patients.

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Monitoring safety of over the counter drugs

Patients could do more than just treat themselves

Editor—Clark et al raise an important issue related to the safety of drugs, both over the counter drugs and those provided by a pharmacy.[1] As increasing numbers of drugs are licensed to be sold over the counter, there is a growing need for both the safety of the drugs and their interactions with prescribed drugs to be carefully monitored.

The solution proposed for pharmacy medicines seems to me to be dogged by the problems faced by current systems of surveillance of prescribed drugs—that is, under-reporting engendered by complicated systems, the time lag, and expense. Over the counter medicines present an even greater problem.

The philosophy of switching to pharmacy medicines or over the counter medicines is to empower the patient to participate more fully in his or her health care. Why not extend the same philosophy to safety monitoring? A card enclosed with the drug would invite all users to register as consumers—we already do this for consumer electrical products. Simple postal questionnaires supplemented if necessary by telephone follow up can provide good quality data not only on side effects but also on efficacy.[2] My unit has conducted two successful pilot studies based on this model and is currently attempting to set up a full scale trial.

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Over the counter medicines must be treated like all other medicines

Editor—Many of those who read Clark et al's editorial on monitoring the safety of over the counter medicines must have gained the impression that no systems are in place.[1] But all pharmaceutical companies already have a statutory compulsion to monitor and report adverse drug reactions as part of obtaining a marketing authorisation. In fact, all medicines (prescription, pharmacy, and general sales) are subject to exactly the same requirements in terms of pharmacovigilance.

Furthermore, over the counter medicines have always been included in the yellow card scheme, and healthcare professionals are encouraged to report adverse reactions on these products. The inclusion of community pharmacists in the yellow card scheme in November 1999 provided an extra level of vigilance for all medicines, including those sold over the counter.

Although the yellow card scheme has the limitations of any system that relies on spontaneous reports from healthcare professionals, these limitations are the same for both prescribed and over the counter medicines. Pharmacists are particularly well placed to report adverse reactions associated with over the counter medicines and are perhaps less likely to display the diffidence and complacency identified by Clark et al as reasons for under-reporting by doctors.

Clark et al call for a practical yet scientifically robust method of safety surveillance for medicines sold over the counter. Asking pharmacists to record details of over the counter purchases is anything but practical. Furthermore, no evidence is given to support the assertion that this would help ensure that products are not used inappropriately or would form part of a scientifically robust method of safety surveillance. Community pharmacists already supervise the sale of all pharmacy medicines, and, in our company, general sales medicines as well. It could be argued that this supervision is at least as good as that given for repeat prescriptions, when, often, the patient has not seen the prescribing doctor for some months.

Few would disagree that the safety of medicines is paramount and that current systems for monitoring that safety are imperfect. The real issue is how to improve postmarketing safety surveillance for all medicines; there is no need to make a separate case for medicines sold over the counter.

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Authors' reply

Editor—We support initiatives that provide better information to patients, but this does not negate the need for robust, proactive monitoring of the safety of non-prescription products. Reporting by patients, as suggested by Wade, is suitable for monitoring some adverse reactions that may occur with prescription and non-prescription products, but some events can only be identified and reported by health professionals.

We agree with Walmsley et al that the need to obtain and maintain a marketing authorisation for all medicines is laid down in British and European Union regulations. Extensive evidence of safety from premarketing clinical trials or from postmarketing use is required before products may be considered for reclassification. Limitations of such methods, however, include variable emphasis on reporting adverse events and poor prediction of outcomes in non-prescription settings.[1]

We agree with Walmsley et al that health professionals should be encouraged to submit spontaneous reports—especially pharmacists, who are well placed to report adverse events associated with non-prescription medicines. Increased use of non-prescription drugs proportionally increases the occurrence of adverse effects (in absolute numbers).[2] Unfortunately, these adverse reactions are less likely to be reported by consumers or medical practitioners than are those associated with prescription products.[3]

Because under-reporting is likely, spontaneous reporting schemes are insufficient to monitor the safety of non-prescription drugs; complementary methods are required, if only for a limited period after reclassification. We disagree that pharmacists are less likely than general practitioners to suffer from constraints surrounding submitting reports. One need only read the *Pharmaceutical Journal* to understand the pressures that community pharmacists endure. In any case, community pharmacists' contribution to the yellow card scheme has not been fully evaluated.

We have repeatedly shown that prescription event monitoring provides a valuable addition to pharmacovigilance of prescription products in England. Although community pharmacists responded well to pilot pharmacovigilance projects,[4] a more robust system is needed. Many community pharmacy companies, including Boots the Chemists, are investing greatly in computerised systems. Electronic linkage of computerised patient drug records and point of sale systems could allow systematic collection of data on the use of non-prescription medicines. The idea that pharmacists would need to personally log details is obsolete when such technology is abundant.

The withdrawal of products containing phenylpropanolamine highlights concerns that not all medicines are proved safe before reclassification. Our editorial merely added to debates on improving postmarketing surveillance to bring medicines sold without

prescription in line with prescription products. This will increase confidence in the safety of non-prescription products and may facilitate future regulatory decisions.

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Daily regimen and compliance with treatment

All available evidence needs to be evaluated

Editor—Bloom's editorial is a surprising contribution to the important discussion about how best to improve compliance with treatment in chronic diseases.[1] His assertion that fewer daily doses increase compliance, and his notion that the least expensive drugs are usually the least effective and have the highest rate of side effects, cannot go unchallenged.

Bloom cites one of his own studies, funded by a pharmaceutical company, to support the idea that fewer daily doses improve compliance.[2] This study was a retrospective analysis of prescription records, which showed higher rates of prescription refill at one year among those treated with once daily versus more frequent dosing and those treated with newer, more expensive drugs. The study was confined to supposedly hypertensive patients younger than 71, but no initial blood pressure values were available, and none of them was evaluated in a standardised manner. Moreover, no blood pressure values, non-pharmacological interventions used, side effects, or reasons for stopping treatment were recorded.

Allocation to different drugs was at the discretion of the physician. During the study period, physicians and patients became increasingly aware of the limited benefits of treating mild hypertension in younger patients. Furthermore, it might be expected that a new drug undergoing postmarketing surveillance would be more likely to be continued if financial benefits accrued to the prescriber. Most serious investigators would have been deterred from using such a dataset to tackle the question of compliance, and it is telling that in discussing his findings, Bloom cites one of the landmark trials from the United States in the treatment of hypertension (the hypertension detection and follow up programme) as being from the United Kingdom.

We reviewed the literature on compliance with antihypertensive drugs from 1966 to 1996 and have recently updated our work.[3] To our knowledge, at least six randomised controlled trials have investigated the effects of dosing schedules on compliance, with conflicting results.

The notion that the least expensive drugs are the least effective would be a convenient marketing strategy for the pharmaceutical industry, but it is untrue in the two areas Bloom considers. Low dose thiazide diuretics are as effective as more expensive antihypertensive drugs and have a better side effect profile than newer drugs.[4 5] For osteoarthritis a recent Cochrane systematic review has reported that paracetamol (acetominophen) is as effective in relieving pain as newer and more expensive non-steroidal anti-inflammatory drugs.

Improving compliance is important—and will undoubtedly involve balancing considerations of efficacy, side effects, and convenience—but better clinical practice will result only from rigorous evaluation of all the available evidence.

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Concordance respects beliefs and wishes of patients

Editor—It was ironic to read in the same issue of the *BMJ*, Bloom's editorial on compliance and Moscrop's news item, in which he reported that chronically ill patients will have more say in managing their disease.[1 2] Bloom insists on using the term "compliance," with all its implications that patients should do as their doctor orders them.[3] He discusses the epidemiology of compliance and the cost of drugs. Nowhere does he refer to the right and need of patients to make their own decisions about their health care or to the reasons why they so often do not adhere to their doctor's advice.

Of course patients will continue to manifest poor adherence to treatment so long as some doctors maintain the attitude that patients should do as we tell them, implicit in the persistent use of compliance, even in editorials in the *BMJ*. In contrast, Moscrop reports on the aim that patients should become participants in, not just recipients of, their health care. The time has come for us all to participate in "concordance"—an agreement reached after discussion between a patient and healthcare professional that respects the beliefs and wishes of the patient in determining whether, when, and how medicines are to be taken.[4] It is obvious if we want to achieve optimal treatment.

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Literature before 1980 should not have been ignored

Editor—In his editorial on compliance with treatment Bloom implies that he searched the literature only since 1980.[1] Most of the factors influencing compliance had been identified and published by that time. I had provided evidence in the *BMJ* in 1969 that compliance was better with a once a day dose than with divided doses and confirmed the findings of a number of other workers that old age was not a factor.[2] It is wrong to ignore the large body of literature that predates 1980.

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Screening for diabetes in general practice

Opportunistic screening for diabetes in general practice is better than nothing

Editor—Lawrence et al conclude in their paper that screening for diabetes in general practice by measuring fasting blood concentrations of glucose has a very low yield in patients whose sole risk factor for diabetes is age 45 or more.[1] Our experience from opportunistic screening in a rural primary health centre in Sweden is different.

A sign in the waiting room during 1999 invited all visitors aged 40 or older at the centre in Storvik, a village of 6800 inhabitants, to have their blood concentrations of glucose tested. Altogether 249 patients accepted, of whom 72 had a

non-fasting capillary blood concentration of glucose of >6.7 mmol/l.

The latter group was invited to return for two further tests. Sixty two showed up, and 18 of these had a capillary blood concentration of glucose of >6.1 mmol/l in both tests.[2 3] Five were aged around 50, and eight were aged 75 or older. Altogether 349 tests were performed. The cost of materials and work per test was about £2.00.[4]

Thus we found 18 new diabetic patients at very low cost by opportunistic screening. Our screening method was simple: £40 to find a diabetic patient, or about £140 per person to find these five "younger" patients, is a low cost. To set the cut-off point for a normal random blood concentration of glucose to <6.7 mmol/l is said to give a sensitivity of 64% and a specificity of 92% in a well screened population.[5]

Since most people will visit a primary health centre once every five years, few cases are going to be missed. This is therefore an acceptable way of screening and does not entail any oral glucose tolerance tests. It is better to do something than nothing at all, and we offer all patients a blood glucose test at least once every five years from the age of 45. Patients with cardiovascular risk factors, such as hypertension and dyslipidaemia, are tested at regular visits at least yearly.

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Population screening for diabetes is cost effective

Editor—The paper by Lawrence et al on screening for diabetes in general practice shows two important aspects of primary care.[1]

Firstly, the ability to conduct a consultation in 10 minutes is questionable if it requires gaining full and informed consent and discussing the implications of diagnosis, calculating body mass, taking a full family history, and phlebotomy. I think that 20 minutes would be the minimum time requires, doubling consultation costs.

Secondly, primary care records are not yet sufficiently standardised or historically coded to allow selective screening. Over the past five years in my practice patients have been repeatedly ofered home self-screening, with estimation of fasting blood glucose concentration in those with glycosuria two hours after a glucose load. This has detected previously unknown diabetic patients at a minimal cost per new case.

In April 2001 we sent 4000 newsletters by second class post to all adult patients, one per household, half the envelopes including urine testing strips. Two months later 27 patients contacted the surgery reporting a positive urine test result and were invited to have their fasting (14 hours) blood glucose measured, samples being sent to the local hospital laboratory. Six patients were diabetic (blood glucose 7.9, 7.2, 7.9, 9.0, 9.8, 10.5 mmol/l). Another patient's concentration was within 0.5 mmol above the upper range of normal for the laboratory (6.3 mmol/l) and will be recalled every six months for repeat measurement.

The urine testing strips cost £120 for the 2000. The five hours spent preparing the envelopes cost £30, the envelopes and labels £25. The 27 laboratory estimations and phlebotomy cost £270.

Thus the cost of screening 2000 patients for diabetes with a diagnostic success rate of 0.3% cost £805 including postage, or £134 for each new diabetic patient identified. This would decrease to £70 if the cost of postage was excluded (in our case, letters were being sent to patients for other reasons and postage was not an additional expense).

Many patients in the United Kingdom have yet to be identified as being diabetic (hyperglycaemic). Screening by blood analysis may deter some patients and is expensive in both time and money. Urine testing is cheap and can be undertaken by the patient or carer without formal training. Loading with a glucose drink beforehand is more likely to show an inability to handle glucose with glycosuria. Commercially available glucose drinks are available and are acceptable to patients.

An effective self-testing programme for diabetes based on glucose loading and urine testing could save the NHS some long-term treatment costs and decrease secondary morbidity associated with age related diabetes.

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Workload studies as well as clinical trials should be considered when drawing up guidelines

Editor—Several authorities, including the Irish College of General Practitioners, advocate that general practitioners should be more actively seeking out patients with undiagnosed diabetes.[1 2] Lawrence et al highlighted the potential workload implications of implementing guidelines on diabetes screening in general practice.[3]

We screened all patients aged 65 and over who presented for flu vaccination in the winter of 2000 using glucometer devices (Glucotrend), which were validated beforehand and once weekly during the project. Of the 339 who attended (mean age 76), 29 (8.5%) were known to be diabetic and three to have impaired fasting glucose concentrations or glucose tolerance. Two patients declined to participate and two were excluded from the study on the grounds of dementia.

Of the 303 patients screened for diabetes, 64 (21%) patients had a glucose concentration ≥6 mmol/l and were offered an abbreviated glucose tolerance test. The test was not done in 19 patients (seven declined, two died, one was investigated in hospital, and nine were housebound or living in a nursing home). Five of the seven who declined the test allowed fasting blood glucose to be measured, and it was impaired in one. Twenty eight of the 46 glucose tolerance tests gave normal results, six showed frank diabetes, and 12 previously undetected impaired glucose tolerance. In all, 103 (34%) patients had a glucose concentration ≥ 5.5 mmol/l—the recommended cut-off point in the current Irish guidelines.[4 5]

Screening 303 patients using a cut-off point of 6 mmol/l was 40 hours of additional work. This calculation is based on allowing 5 minutes for the initial glucose reading including explanations (25 hours), 8 minutes for a fasting blood glucose measurement (40 minutes), and 20 minutes for each glucose tolerance test (15 hours). A cut-off point of 5.5 mmol/l would have added 13 hours (39 × 20). This extra work identified six new diabetic patients and 13 people with impaired fasting glucose or impaired glucose tolerance against a background of a fairly high proportion of diabetic patients already being known.

Several studies and our local guidelines suggest a cut-off point for random glucose testing of 5.5 mmol/l. Even excluding our housebound patients and using a cut-off point of 6 mmol/l resulted in a considerable extra workload. We strongly urge that the issuing of guidelines should be preceded by workload studies as well as clinical trials so that resources can be put in place before their implementation to enable general practitioners to adhere to them.

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Don't strangle health promotion, redefine it

EDITOR—Guthrie cites an example of a well meaning and resource intense intervention for type 2 diabetes that failed to have the effect for which it was presumably designed.[1] He calls for us to strangle health promotion before it strangles us.

I agree that many health promotion trials have been disappointing, but I think that the call to arms should have been preceded with some definition of the concept of health promotion. In 1986 the Ottawa charter for health promotion of the World Health Organization defined health promotion as the process of enabling people to increase control over, and to improve, their health. Five main strategies are discussed and listed as building healthy public policy, creating supportive environments, strengthening community action, developing personal skills, and reorienting health services. Only one of the strategies is focused directly on patients or clients.

Many have called for the system to refocus on upstream approaches. The environment in which we live must be a target of our efforts. The United Kingdom, Canada, and Australia have all recently published reports of the startling rise in childhood obesity over the past 10 years. Training these children or designing a glossy pamphlet for their edification will have little impact.

But we must not throw our hands up in despair; we must refocus our energies on the environmental causes and be bold enough to call for the changes (many of them legislative) that will lead to success. Guthrie's example is one more example of how not to achieve the goal, but we should not give up all hope. The healthcare system will experience chaos (not to mention the human toll) if we do not take steps to build healthy public policy and create supportive environments.

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School based intervention has reduced obesity in Singapore

EDITOR—In 1992 Singapore's health ministry launched a national programme promoting a healthy lifestyle to address the common risk factors for chronic diseases such as obesity, physical inactivity, and cigarette smoking. Different age groups in the population were targeted, including school children.

The health promotion board of the health ministry works in close partnership with the education ministry on obesity programmes for school children. The education ministry's "trim and fit" programme for primary, secondary, and preuniversity schools aims to reduce obesity in school children and improve the physical fitness of the pupils using a mutidisciplinary approach targeting overweight students, parents, teachers, and the school environment. These are comparable to the approaches used in Sahota et al's intervention programme.[1 2]

Under the programme, nutrition education is integrated into the formal school curriculum. The food and drinks sold in school canteens are subject to control measures, and water coolers are provided in all schools to encourage students to drink more plain water. Schools that achieve good health outcomes will be presented with the trim and fit awards annually.

Special attention is also given to students found to be overweight. At schools they participate in special physical exercise programmes, and messages on healthier nutrition choices are reinforced. Obese students who require further assessment and management are referred to the school health service's students' health centre for more intensive follow up with doctors and dieticians. The health promotion board launched the "championing effort resulting in improved school health" award in 2000. The award recognises schools that continually strive to nurture the physical, emotional, and social health of both students and staff and help them adopt healthy practices through comprehensive and innovative methods. Children are also targeted in the community programmes that promote healthy lifestyle habits in families.

Since the implementation of these obesity programmes, the prevalence of obesity has declined from 16.6% to 14.6% between 1992 and 2000 among primary 6 students (11-12 year olds). A similar decline was seen in secondary 4 students (15-16 year olds) from 15.5% to 13.1% over the same period.[3 4] These obesity programmes form a part of the overall push by the government of Singapore to promote health through schools, which has been identified by the World Health Organization as one of the most efficient and effective ways of improving the lives of young people.[5] It is also a part of the overarching framework for non-communicable disease prevention and control to reduce premature mortality in the country.

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National guidance and allocation of resources

Acting chairman of SIGN's response

EDITOR—I think that Cookson et al in their criticisms of the Scottish Intercollegiate Guidelines Network (SIGN) show a lack of understanding of the role of this organisation and the methods it uses to develop its guidelines.[1] Evidence based guidelines will not resolve all healthcare issues, just as randomised controlled trials are not appropriate to resolve all therapeutic controversies. There are, however, areas of healthcare delivery where there are variations in practice and outcome, and where there is also evidence to support one practice over another.

This is where SIGN concentrates its resources to produce guidelines. SIGN does not differentiate in its methodology between costly and non-costly treatments, and, contrary to the authors' supposition, the adherence to such guidelines will reduce variations in treatments of all costs and therefore the possibility of decision making behind the scenes. In addition to this, SIGN guidelines are not only in the public domain, but the public have a key part in their development, and this involvement is an important driver for change.

Cookson et al are also concerned that resource allocation might be distorted. The opposite is the case. Adherence to evidence based guidelines will lead to a more efficient use of resources and concentrate this on areas where there is a clear benefit from a therapeutic intervention. It should also be made clear that SIGN guidelines are not just about advising on treatment but offer guidance to assist with the management of patients at all stages of their disease, and where there is robust economic information, this is incorporated into the guideline.

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1 Cookson R, McDaid D, Maynard A. Wrong SIGN, NICE mess: is national guidance distorting allocation of resources? *BMJ* 2001:323:743-5. (29 September.)

Economics has both strengths and weaknesses in health resource allocation

EDITOR—One of the greatest strengths of economists lies in drawing inferences from imperfect data, and, as Maynard knows, the data about the value of reducing risk of hospital acquired infection are certainly imperfect.[1 2] Cookson et al dismissed guideline 45 from the Scottish Intercollegiate Guidelines Network (SIGN) as a calculation done on the back of the envelope, about the budgetary impact of antibiotic prophylaxis for surgery.[3] The guideline provides two decision rules that challenge policymakers to identify a point at which antibiotic prophylaxis may be effective but not cost effective. Antibiotic resistance, rather than budget impact, is the primary concern. Like all SIGN guidelines the final document was the result of months of peer review. Succinct it may be, but "back of the envelope" it is not.

Scotland's history shows a strong preference for institutions that are inclusive and cooperative rather than centrally imposed. Both SIGN and the Scottish Medicines Consortium exist because of the vision and energy of clinicians such as Jim Petrie and David Lawson. They have created respected institutions that include all the regions of Scotland in national decision making, to complement rather than compete with the health technology board for Scotland. Economists in Scotland are working with all these institutions to ensure that issues about efficiency and equity are communicated in a language that is understandable and acceptable to clinicians. That debate is not going to be helped by a paper prefaced by a title and cartoon that would make a tabloid editor blush. This language merely antagonises and offends.

Cookson et al argue that national guidance from the National Institute for Clinical Excellence (NICE) will increase efficiency but there is a fundamental flaw in NICE's economic methodology. The Department of Health has imposed different discount rates for future costs (6%) and outcomes (1%), presumably to disguise the inefficiency of certain screening programmes that have strong public support. The *BMJ* should consider providing a forum for a debate on NICE's economic methods. In the meantime I am very glad to live in a country in which national health technology assessment is complemented by professionally led institutions that are not politically controlled.

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Article from *Clinical Evidence*

Cochrane review on IV β_2 agonists for acute asthma was not mentioned

EDITOR—In the article from *Clinical Evidence* on acute asthma, FitzGerald claims that the effectiveness of intravenous versus nebulised delivery of short acting β_2 agonists for acute asthma remains unknown.[1] This statement is based on the conflicting results from three minor trials in 139 patients altogether.

In their Cochrane review Travers et al state (on the basis of results from 15 controlled trials in 584 patients) that "there is no evidence to support the use of IV [intravenous] β_2 agonists in patients with severe acute asthma. These drugs should be given by inhalation. No subgroups were identified in which the IV route should be considered."[2]

I find it problematic that FitzGerald's article claiming clinical evidence fails to mention the review by Travers et al, especially as these so called evidence based reviews are having increasing impact on the future treatment of this common disease in emergency departments. It is thought provoking, too, that a paper examining the quality of evidence based reviews and suggesting that reviews should be interpreted with caution should be published in the same issue of the *BMJ*.[3]

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GPs' undocumented work has increased substantially

EDITOR—Thinking about my own practice (five doctors, rural market town), I can understand how Florin and Gillam's conclusion that there is no clear evidence that the workload of general practitioners has increased recently can come about.[1] Over the past 15 years our list size has remained fairly constant and our home visits and the number of people we have seen have been about the same each year. But we have given up overnight work (the "night visit" rate had increased from one or two a year to one or two a night). We have the figures to prove all this.

Unfortunately, much of the increase in our workload has been in areas that have not been counted or documented. When I arrived at the practice 15 years ago the town had three retirement homes. Few of our patients were over 85, and just some were taking warfarin or having gold injections. There was debate over what was a desirable blood pressure, and many hypertensive patients were looked after by the hospital, as were most diabetic patients. There were no statins and no guidelines on cholesterol testing. We regularly had routine appointments available on the same day, and there were no practice meetings.

There are now eight retirement homes, some with very dependent patients, many of whom are over 90. Numerous patients take warfarin, regularly requiring blood tests and directions as to what dose to take. Similarly, many patients with rheumatoid arthritis require regular blood tests because of the drugs they take. There are guidelines as to desirable blood pressure, investigations that must be done for hypertensive and diabetic patients, and blood tests required when we change drug dose. More patients taking cholesterol lowering drugs need to be supervised.

Our earliest routine appointment was in 10 days' time until we employed an assistant to reduce this wait. We have about one practice meeting a week and have refused to attend weekly meetings of the primary care group, any clinical governance meetings, and other sundry meetings.

No one has measured the time we now spend on the telephone to patients, the number of subjects discussed in consultations, or the number of results of blood tests we look at (and make decisions about). We all know, however, that we no longer have time for any lunch break, and when not consulting or visiting we spend our time doing paperwork. This helps to explain our feeling of being burdened, despite the "measurable" features of our practice being the same. Have the researchers considered this?

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Children are at risk from parked cars

EDITOR—It is not only their own children whom articulate middle class parents (mainly mothers) are putting at risk by using their cars.[1] I drop off my two boys at school each morning and then pick them up at the end of the school day. Every day I find that parents are either parking or stopping their cars in the area in front of the school that is clearly marked as a no stopping zone, as well as in the areas either side of the nearby zebra crossing.

I have asked the parents if they are aware of the restrictions. I have also attempted to discuss the risk to children of being hit by a car while they are trying to cross the road when their view is being impeded by a parked car. About half of the parents claim not to know of the restrictions or excuse themselves by saying that they just stopped for a few seconds. From the other parents I get either no acknowledgement or an angry response along the lines of "Haven't you get anything better to do?"

I find it ironic but sad that the school these parents have chosen to send their children to is a church school that teaches the children the virtue of considering others. Perhaps we need an educational campaign that will target these parents and get them to appreciate the danger that they are placing other children in.

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