Letters

A prescription for better prescribing

Medical education is a continuum

Editor—The editorial by Aronson et al raises important concerns about the preparedness of newly qualified doctors to prescribe safely and effectively, but fails to provide evidence to support the claims that are made.[1] Importantly, the authors assume that the number of curricular hours equates to learning. The General Medical Council issues and regularly updates requirements for the content and outcomes of undergraduate medical education and the first foundation year. We deliberately do not tell medical schools how many hours must be spent on a particular subject: it is the acquisition of our learning objectives that is important.

Medical education is a continuum. With respect to prescribing, as with so many other areas of medical education, we expect principles to be learnt and understood at medical school and then put into practice, under supervision, during the F1 year. Our requirements are laid out clearly in *Tomorrow's Doctors* and *The New Doctor* and include very clear expectations about the quality and extent of knowledge about the safe and effective use of drugs.

Despite the strength of views expressed in the editorial, the authors have not presented robust and generally applicable evidence to show serious inadequacies in the learning of clinical pharmacology in the undergraduate medical curriculum. We look forward, however, to engaging with all interested parties to clarify the issues surrounding this very important subject.

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1 Aronson JK, Henderson G, Webb DJ, Rawlins MD. A prescription for better prescribing. *BMJ* 2006;333:459-60. (2 September.)

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Summary of responses

Many of the 18 other responses to the editorial by Aronson et al (mainly from UK based doctors and pharmacists) emphasised the importance of teamwork and communication as key to improving prescribing.[1] The dean of the University of East Anglia Medical School, Sam Leinster, and his pharmacology lecturer colleague Yoon Loke were, however, concerned that the editorial had drawn conclusions about the quality of teaching before the data had been collected and evaluated.

Proposed solutions to the perceived problem include drawing on the skills of (clinical) pharmacists or nurse practitioners; separating the disciplines of diagnosis and prescription and using two different professionals ("diagnosticians" and "therapeuts"); using prescribing advisers in primary care trusts or specially trained clinical pharmacologists; gaining additional postgraduate certifications; making decision aids available through information technology, on personal digital assistants, or in the shape of the (electronic) *BNF* or *Drugs and Therapeutics Bulletin* . . . The list goes on: additional training shifts on the wards for senior medical students and increased or prolonged supervision of student doctors by different types of professionals.

By way of improving training, a programme of teaching and reflective learning has been developed at the University of Dundee Medical School, the Appropriate Prescribing for Tomorrow's Doctors project. Developed by specialists in infection and medical education, it has now been adopted by medical schools throughout the UK. The programme's primary resource is an interactive website with access to clinical worked examples, prescribing exercises, self assessment tools, and a reflective learning logbook.

London based primary care professor Azeem Majeed and colleagues discuss the topic of admissions to hospital as a result of adverse drug reactions—a possible consequence of poor prescribing—and conclude that we do not have good enough data to draw conclusions on how to improve prescribing, something that Nicholas Moore, professor of clinical pharmacology in France, echoes but thinks that any admission for an adverse reaction is reason to try to improve the practice of prescribing.

D B Double, consultant psychiatrist in Norfolk, looks at the issue from another angle, arguing that overprescribing may be as much a problem as underprescribing. Doctors need to focus on the patient to get it right, as not every patient may be after a prescription in the first place.

Bevan J Clayton-Smith, research fellow at the Research Centre for Māori Health and Development, concludes with a concept that others in essence support, that behind every good prescriber is a good relationship between pharmacist and physician. It seems a good starting point.

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1 Electronic responses. A prescription for better prescribing. bmj.com http://bmj.bmjjournals.com/cgi/eletters/333/7566/459 (accessed 7 Sep 2006).

Preventing and detecting early vascular effects of diabetes

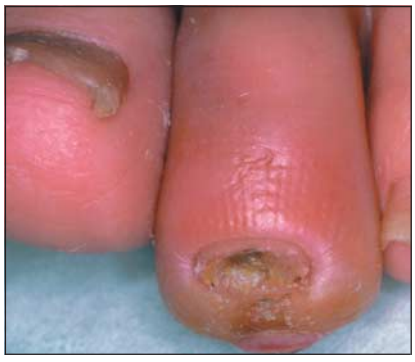
Improvement must continue or costs will escalate

Editor—As editor of a diabetic retinopathy website with patients regulary sending letters, I agree with Marshall and Flyvberg's comments.[1] Care is rapidly improving across the United Kingdom, but around a quarter of patients with retinopathy still present with severe retinopathy at time of diagnosis of diabetes. They have not been screened for diabetes, despite having it for 5-10 years and having been recommended screening by medical professionals.[2]

Thus, in addition to Marshall and Flyvberg's suggestions, screening for diabetes itself must improve if retinopathy is to be prevented; and people must make the lifestyle changes to avoid type 2 diabetes.[3]

If control of diabetes improves from a poor level yielding a significantly lower HbA_{1c}, however, well established retinopathy may progress rapidly: good control will help in the long but not the short term. This has played a part in worsening severe retinopathy in many people.

Basal bolus insulin regimens may reduce retinopathy progression compared with twice daily regimens, even in type 2 diabetes (A Liebl et al, American Diabetes Association 66th annual scientific sessions, Washington, DC, June 2006), yet regimens of insulin twice daily remain popular.



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New and effective drugs are about to be launched to treat diabetic retinopathy. Results of treatment should improve tremendously, but the cost of the drugs might help to bankrupt the NHS unless there are fewer patients to treat (£3000-6000 (€4402-8804, $5595-11 191) per course).[4]

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Word of caution on peripheral arterial assessment

Editor—Marshall and Flyvbjerg's clinical review gives contradictory information about measuring the ankle-brachial pressure ratio in diabetic patients, as well as portraying an unrealistic picture of the assessment of peripheral arterial disease in them.[1]

Firstly, 10-15% of diabetic patients may have a falsely raised ankle-brachial pressure ratio because early calcification of the tunica media renders the arteries incompressible.[2] This should not be solely relied on as an objective assessment criterion. The pole test is more accurate.[3] The arteries of the foot and toes are comparatively spared in diabetes. Therefore other tests—such as the toe pressure index, analysis of Doppler wave form, pulse volume analysis, and transcutaneous oxygen measurements—are far better but can rarely be done outside specialist clinics.

Secondly, for practical reasons the ankle-brachial pressure ratio should be measured at the peroneal (fibular) artery rather than the posterior tibial artery or dorsalis pedis, as mentioned in the clinical review. The peroneal artery in the leg is also comparatively spared from calcification and thus offers the best available option.[3]

Thirdly, the review mentions identifying four "classic" risk factors for developing problems with the diabetic foot, but these often blur the picture. Symptoms such as pain in the foot or leg while resting or during sleep indicate critical ischaemia in patients without diabetes, but diabetic patients have a higher incidence of nocturnal muscle cramping, which is not due to arterial insufficiency. Assessment of pulse in an oedematous, ulcerated foot may not be possible, and infection of foot ulcers because of neuropathy often masks the subtle signs of arterial insufficiency—such as changes in skin colour associated with raising or lowering the foot.[4]

Early referral to a specialist multidisciplinary team is essential to reduce complications such as amputation. The interplay of all contributing factors needs to be considered carefully, rather than simply relying on just one test or pressure readings in diabetic patients.

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Rare diseases need a generic approach

Editor—Dunkelberg describes the experience of looking after her child with a rare disease and an unknown diagnosis.[1] These experiences are all too common in people with rare disease and their families. A survey by the European Organisation for Rare Diseases (Eurordis) in 2005 showed that 25% of people with one of eight rare diseases experienced delayed diagnosis.[2] Forty five per cent had their diagnosis communicated unsatisfactorily, and common problems were experienced by patients with diverse diagnoses. It also estimates that 6-8% of people in Europe have a rare disease.[3]

Anecdotally, general practitioners are known to see people with rare diseases often,[4] but there is no published information about the role of primary care in rare diseases. A generic approach is needed to people with rare disease that will avoid some of the problems commonly experienced by patients. We welcome comments on our proposed outline[5] and how the common problem of rare disease should be managed in general practice. It's time for a discussion to start.

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Role of cholinesterase inhibitors in dementia care

Memory clinics and cholinesterase inhibitors have their place

Editor—Pelosi et al ask that the roles of cholinesterase inhibitors and particular components of services for people with dementia be placed in perspective and their value recurrently evaluated as new approaches are identified.[1]

As the authors confirm, memory clinics do more than prepare patients for treatment with a cholinesterase inhibitor: they encourage early identification of memory problems, provide high quality investigation and diagnosis, offer education and counselling for patients and families, contribute to the education of caring professionals, and contribute to research and audit. They are rated highly by patients, carers, and referring agencies and are recognised internationally as quality markers in services.[2] In addition, the new generation of clinics are fully integrated into community oriented services for older people, with the specialist knowledge and skills of the clinic team being drawn on and appreciated by the wider group of service providers, as well as patients and carers.[3 4] The general principles of good modern community services for dementia have developed in 30 years.[5]

Cholinesterase inhibitors have modest beneficial effects and, in practice, are prescribed, after careful assessment, to comparatively few patients. In our experience, roughly 300 out of the potential 2000 people with dementia from a population of 40 000 older people are receiving such treatment at any one time, and most do not continue with it beyond two years. Expenditure on this treatment is therefore low compared with the overall cost of care for people with dementia from the whole population. The clinic team usually amounts to one or two full time staff, supported on clinic days (one or two days a week) by others with specialist skills, and is small in comparison with the total number of people concerned with the multiagency, multidisciplinary complex care devoted to dementia.

Pelosi et al raise important points. We would like to have even more to offer to people with dementia and their families.

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NICE's economic analysis has limitations

EDITOR—We have concerns with some of the points raised by Pelosi et al in accepting the economic model used by the National Institute for Health and Clinical Excellence (NICE) for its current draft guidance on cholinesterase inhibitors.[1] There are serious and acknowledged limitations and uncertainties in the economic analysis performed by NICE.[2]

The model developers admit the model structure to be limited, illustrative, and a crude representation of disease progression.[3] Furthermore, they agree that the evidence base in these areas and across Alzheimer's disease generally is sparse and provides little assistance to analysts undertaking economic evaluations.[4]

The current NICE guidance forms the framework in which patients are treated with cholinesterase inhibitors and should form the basis for assessment of cost effectiveness. However, the model did not reflect this. Following comments received during the appraisal, NICE requested manufacturers of cholinesterase inhibitors to produce responder analyses based on its 2001 guidance. These analyses showed improved clinical benefit and cost effectiveness in patients who respond to treatment. NICE subsequently rejected these analyses, although it had asked for them. Similarly NICE has not justified including the costs of treatment for all patients (irrespective of response) for the five years covered by the model. The cost and quality of life data used in the model were unreliable. Cost data seem not to have been indexed.[5]

The cost effectiveness values reported by NICE show that the estimates are highly sensitive to small changes in inputs. However, NICE has refused to provide an open model for public scrutiny, and so the robustness of the model cannot be independently tested.

We are concerned that NICE has based an important healthcare decision on flawed economic analysis, and Pelosi et al should have highlighted the serious limitations of the economic analysis.

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Cuba's international cooperative efforts in health

EDITOR—In her news item Carillo de Albornoz gives the stage to two Cuban doctors who "defected."[1] Both are critical of Cuba's national health system and international cooperation, in sharp contrast to the representatives of academia, the World Health Organization, and non-governmental organisations interviewed.

Longstanding collaboration with Cuban research institutes makes us privileged witnesses to the country's successes and hardships. Since the collapse of the Soviet Union and the tightening of the US blockade, Cuba has been in dire straits but overall health outcomes have remained excellent and continue to improve.[2 3] International solidarity has always been at the centre of the Cuban societal project, lately from structural health cooperation with Haiti and Venezuela to massive emergency relief to Pakistan after the earthquake last year.[4]

The Venezuelan government is developing comprehensive health programmes, aiming at universal coverage (F Armada, speech, Continental Social Forum, Caracas, January 2006). Many middle and upper class Venezuelan doctors elect not to work in poor neighbourhoods for limited salaries. It is not surprising that some Cuban doctors who were posted in these areas left for the United States. What is surprising—and admirable—is the commitment of the Cuban government and most of the more than 20 000 Cuban doctors who continue to serve all over Venezuela and in other Latin American, African, and Asian countries.

Today, Cuba is one of the few important players in international health that actively opposes the dominant discourse of privatisation and neo-liberal health services. Inevitably, the debate on the performance of the Cuban health system and—even more—on its international (health) cooperation is not based on public health concerns alone.

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Avoiding deaths on Everest

EDITOR—Sutherland attributes prolonged exposure to high altitude through protracted rates of ascent as a fundamental cause of deaths on Everest,[1] but the success of most expeditions emphasises that death at high altitude is avoidable.

The Everest West Ridge expedition (www.armyoneverest.mod.uk) highlights the importance of a collective, inclusive approach in extreme conditions that incorporates detailed planning, dynamic leadership, and a holistic maintenance of the overall aim. After 60 days of climbing on Everest's most demanding and treacherous route, there were no deaths, severe injuries, or significant evacuations (when over 40 were reported on other routes).

The expedition began with a clear mission and careful selection of people, with social fit of utmost priority. For almost three years the climbers prepared through prescribed training, simulation, and education in a framework of kinship and loyalty. They were physically fit, well fuelled, properly equipped, and psychologically adaptable to meet conditions that many had not previously experienced. This attention to detail resulted from the combined efforts of university sports physiologists, psychologists, dietitians, biochemists, army medical specialists, and Everest veterans.

Before arriving at Everest small ascent teams were created, each with specific plans and clear contingencies to cover foreseeable events. These teams, each with designated leaders, regulated hydration, nutrition, energy expenditure, and rest. They guarded against the onset of acute mountain sickness and generated banter to reinforce collective standards.

For impossible snow conditions above 8000 m, however, any of 13 climbers were positioned to complete the final 800 m to the summit, which had been reached this way by only 13 people ever. Twenty of the 21 climbers attained a height of 7500 m without oxygen. Crucially, when the decision to withdraw was made, leaders were all cognitively capable. The careful choice of participants and repetition of core values through the preparation period meant that climbers accepted their role as followers. This helped them to set aside personal aspirations for glory and once in a lifetime achievement in favour of survival.

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1 Sutherland AI. Why are so many people dying on Everest? *BMJ* 2006;333:452. (26 August.)

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