Commentary

An agenda for UK clinical pharmacology

An Australian perspective

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Discussing the future of UK clinical pharmacology, eight Australasian clinical pharmacologists emphasized the need to make the discipline 'indispensable' in key areas. The visibility of clinical pharmacology in Australasia has been improved by working with the Consumers' Health Forum in Australia in the construction of the national Policy on Quality Use of Medicines and, later, of the formal National Medicines Policy. Our expertise in clinical pharmacology, combined with the Health Forum's political skills, proved a potent force for launching these policies. A second example was the construction of the national prescribing curriculum in partnership with the National Prescribing Service. This is being used in all medical schools with senior students. At a local level we found that taking over clinical toxicology services (that other clinicians wanted to jettison) provided a stimulus to clinical research and later the formation of a productive subgroup to study the special problems of envenomation. Fourthly, we note that no clinical pharmacology unit in UK is designated as a WHO collaborating centre. Considerable difference can be made to national problems with medicines by clinical pharmacologists willing to work for periods within developing countries. This has given a greater profile to several groups in Australia. The principle of stepping out of conventional settings and actively seeking collaboration with other groups beyond our discipline has enhanced the profile of the discipline in Australasia and could do the same in the UK.

Introduction

That clinical pharmacology has been in decline over several years is a perception in many developed countries, not solely the UK. Several factors have probably contributed to this perception and many of them have been well rehearsed [1].

In preparing this paper I asked a group of Australasian clinical pharmacologists (see acknowledgements), who were unprompted, what they thought the priorities for a UK 5 year agenda should be. Their list contained most of the topics covered in the programme of the agenda-setting meeting that was subsequently held in Green-Templeton College in June 2011, with one or two additions. These are listed in Box 1.

However, to a discipline concerned about its future, it is not only what to do in that future but also how to do it that is important. One of my respondents mentioned the need to make clinical pharmacology 'indispensable' in many different locations. In other words, those working outside our discipline should be able to identify clinical pharmacology as a crucial contributor to the achievement of their objectives if the discipline is to continue to play a central role in industry, academia and the health services. There was also

Box 1

The priorities for a UK 5 year agenda according to Australian clinical pharmacologists

Prescribing education ($n = 5$)
Training/dual accreditation ($n = 4$)
Continuing medical education ($n = 3$)
Pharmacovigilance ($n = 3$)
Pharmacogenetics/pharmacogenomics/personalized medication ($n = 3$)
Pharmacokinetic/pharmacodynamic modelling ($n = 2$)
Cost-effectiveness of medicines ($n = 2$)
Quality use of medicines ($n = 2$)
Difficulties in getting into/performing clinical research ($n = 2$)
Drug/device development ($n = 1$)
Collaboration in support of other countries ($n = 1$)

a general agreement that clinical pharmacology was undervalued, although no one ventured an opinion on whether that was because the discipline is intrinsically of low value or is undervalued because of poor 'marketing'.

I cannot speak for the whole of the international community, but have been involved in many initiatives that have brought clinical pharmacology into prominence in Australia. I want to use three examples that point to the importance of process and conclude with a topic that has been little discussed but has the capacity to give greater world relevance to the work of clinical pharmacologists.

Clinical pharmacology and a national medicines policy

In 1989 the Consumer Health Forum (CHF) published 'Towards a national medicinal drug policy for Australia' [2], an advocacy document that was designed to stimulate government and others to start thinking. It followed hard on the heels of the 1988 WHO publication 'Guidelines for developing national drug policies' [3].

Shortly after that, the Australasian Society for Clinical and Experimental Pharmacology and Toxicology (ASCEPT) contributed to a combined workshop with the CHF, with the title 'Rational Prescribing: the Challenge for Educators' [4]. At that meeting it was established that Australia had most of the ingredients of a national medicines policy, with the exception of policy aimed at improving the quality of use of medicines (QUM), often called 'rational' use of medicines.

The CHF represents well over 100 community organizations (and many thousands of consumers/voters) concerned about health issues. It was sufficiently representative to provide a powerful political lobby, which, working alone, ASCEPT could not have matched. By 1992 a draft policy was adopted by the Australian Government, which established two committees to achieve national consensus and to explore and collate the evidence for the methods available to improve QUM.

By 1997 these groups had achieved their goals, and the Minister announced funding for a National Prescribing Service (NPS), whose explicit task was to promote QUM (with a subtext of saving money from the national subsidized Pharmaceutical Benefits Scheme, through better use of medicines). It was incorporated as an independent entity and established a governing board representing all the 'stakeholders' – consumers, health-care professionals, government and pharmaceutical companies. This form of partnership has been maintained for all committees and working groups in subsequent years [5].

Clinical pharmacologists had, and have, prominent positions in the work of the NPS. Working in the partnership mode has brought into prominence the skills and abilities that they can offer.

A new comprehensive National Medicines Policy was adopted in 2000 and its continuing implementation is overseen by a committee of the Commonwealth Department of Health and Ageing. Many clinical pharmacologists

have worked, and continue to work, in the implementation of this policy. The UK does not currently have a national medicines policy, despite suggestions that national approaches to different aspects of medicines would be of value [6, 7].

Surrendering a little autonomy and making strategic partnerships has brought a high national profile to clinical pharmacology in this area.

Clinical pharmacology and medical education

Soon after it came into being, the NPS established a curriculum and training group, which decided to construct a computer-based, interactive medical school program based on the WHO 'Guide to Good Prescribing' [8], and aimed at senior students, who were learning prescribing. The Clinical Pharmacology Department of every medical school in the country was involved in designing the modules, and there was sufficient finance to see the program through to completion [9]. Since then it has expanded to 25 modules, complete with expert feedback, and is being used by all 15 medical schools that have final year students. The remaining four new Australian schools have yet to reach their fourth and fifth year intakes.

Meanwhile the UK program in prescribing has outstripped the Australian program in many ways. The prospect of having nationwide agreement to introduce and assess a prescribing program for medical students is a measure of the resolve of the coalition working in this area. From outside several factors seem to have come together to shape this work (Box 2). Of these, political support, especially from the Department of Health, the Medical Schools Council and the General Medical Council, with its ability to impose sanctions if necessary, is possibly the most significant. There is a clear need for continuity in prescribing education through the post-graduate years and into programs of vocational and continuing education.

Box 2

Factors that have influenced the achievement of nationwide agreement to introduce and assess a prescribing program for medical students in the UK

A clearly defined and important problem
Causes established
Evidence for remedies
Champions engaged
Political support
Financial backing
Evaluation strategy

Clinical pharmacology and medical practice and research

Early in the life of the Clinical Pharmacology Department in Newcastle, NSW, we were asked to take over the care of all poisoned patients. Nobody else was interested in this task and those who had performed it were anxious to relieve themselves of the job. The service was set up in one of the two teaching hospitals and staff were provided. A systematic database was created in 1987 and now houses data on over 17 000 poisoning episodes. Clinical pharmacology trainees have produced much research into the epidemiology of self-poisoning, such as the relative risks of specific outcomes with different medicines. A special interest in envenomation (snakes and spiders in particular) has led to the formation of a national collaborative research group, and the challenges of self-poisoning and envenomation in developing countries were the stimuli for forming the South-Asia Clinical Toxicology Research Centre in Sri Lanka, which has partnerships with ourselves, and research groups in the UK and elsewhere. Other partnerships have followed and important clinical trial work has been published, including ways of preventing or mitigating the common allergic response to snake antivenoms [10].

Opportunity, if seized, can be a great stimulus to development.

Politicians and administrators are more grateful for proffered solutions than for unanalyzed problems.

Clinical pharmacology and developing countries

More than 2 billion people worldwide have poor or no access to essential medicines. A 200-fold range of Gross National Income per capita (\$340–\$76 710) [11] predicts that poorer countries will be unable to afford medicines that are priced for a developed-world market, especially when these are not available as generics. Rational use of medicines is a big problem and antibiotics in particular are abused universally [12].

Clinical pharmacologists have made relatively little impact on this, even though the skills they possess, for example in developing standard, evidence-based guidelines and essential medicines lists or in assisting in compiling and implementing national medicines policy, are clearly very relevant.

Working as a WHO Collaborating Centre is one way of helping. However, there are no clinical pharmacologists in either the health services or the two medical schools of the Western-Pacific Region of the WHO, and there appear to be no WHO Collaborating Centres listed for UK clinical pharmacology units. Our Newcastle WHO Collaborating Centre has existed since 1997 and provides educational courses, workshops and training for people principally from within our own WHO Region.

We may have achieved a measure of 'indispensability' in work within medicines policy, medical education and, sometimes, clinical practice, but most of the world is untouched by our discipline.

Conclusions

Opportunities exist to make clinical pharmacology indispensable in academia, clinical service and pharmaceutical companies. There are success stories. Clinical pharmacology will never be a large political force numerically. It therefore needs to seek strategic partnerships if it is to have the influence it merits. Currently, for example, successful partnerships with clinical pharmacy are developing in both Australia and the UK where the skills of both disciplines can be harnessed effectively in prescribing education for medical students and postgraduates. Seeding clinical pharmacology trainees into other specialties, which has always been a career route, is another way in which the discipline could spread further.

If the perception of 'low value' is to be remedied, our discipline should be marketed more adequately. Marketing by demonstration of our capabilities is more likely to succeed than rhetoric.

Competing Interests

There are no competing interests to declare.

I am grateful to Evan Begg, Don Birkett, Felix Bochner, Ric Day, Suzanne Hill, Gillian Shenfield, Ian Whyte and Wilf Yeo for their input.

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RECEIVED

18 January 2012

ACCEPTED

30 January 2012

ACCEPTED ARTICLE PUBLISHED ONLINE

23 February 2012

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