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Clinical Pharmacology in the United Kingdom – a view for the 1990s

A year may not seem a long time in a scientific discipline but the disparity in tone of the Presidential addresses of American Society for Clinical Pharmacology and Therapeutics for 1989 and 1990 is quite remarkable. Blaschke's 1989 address (entitled Clinical Pharmacology comes of age) (Blaschke, 1989) is an upbeat account of the success of clinical pharmacology in academia, industry and drug regulation. In stark contrast, Brater's 1990 address (entitled Clinical Pharmacology: where has the support gone?) (Brater, 1990) is a disheartened assessment of the future of the discipline, citing poor support for training programmes with an average of 17 individuals matriculating each year within the whole US and with uncertain prospects for even these.

In the light of these two contrasting transatlantic views on the state of clinical pharmacology, it is relevant to review its current position in the United Kingdom.

Clinical Pharmacology as a discipline is represented in this country in academia, in the National Health Service, in industry and in government (principally in drug regulatory authorities). Its main strength has been and remains the first of these, namely as a teaching and research resource within medical schools where, in addition, it usually fulfils a valuable service function. As recently as 1985, Dollery was able to tell an Anglo-American Workshop held under the auspices of the Royal Society of Medicine that all save two UK medical schools had full teaching programmes in clinical pharmacology led by an academic department (Dollery, 1986) and Turner reported that of 28 Units of Clinical Pharmacology that he surveyed, 14 were completely independent departments and 14 were linked to departments of basic pharmacology (Turner, 1986). Moreover, the majority of staff salary funding came from Universities' own resources (i.e. government money provided through the University Grants Committee). The relatively optimistic view of both scientific and fiscal aspects of UK academic clinical pharmacology that emerged from the workshop contrasted with the picture painted of the discipline in the USA where a much greater reliance on the pharmaceutical industry for even core support was only one of the problems. The question is thus posed—if a similar workshop were held in 1990, only 5 years on, what important changes could be discerned in the United Kingdom scene?

One trend which would quickly emerge is that several previously independent Departments of Clinical Pharmacology have been merged with larger Departments of Medicine. In the last 5 years this has occurred in no less than six UK medical schools, including three of the four Scottish schools. It may be relevant to note that in three of the newly fused Departments of Clinical Pharmacology and Medicine, the new Chairman is a clinical pharmacologist. Is this a change which clinical pharmacology should view with concern, or can it be shrugged off as merely another example of fiscal expediency in an ever downward spiral of university finances? After all, in the survey referred to above, in 1985 half of the Clinical Pharmacology Units were already linked to Departments of Pharmacology, so why should there be concern about closer links with internal medicine? It is also worthwhile remembering that the discipline has faced other problems in its short history.

The development of clinical pharmacology has been marked by self-doubt (read Gross's article entitled 'The thorny path of clinical pharmacology') (Gross, 1978), by attacks from unsympathetic colleagues in other disciplines (read Mitchell's middle article in the British Medical Journal in 1984 which masqueraded as a book review but which was in reality an assault on clinical pharmacology) (Mitchell, 1984) but perhaps most woundingly of all, by challenges from the enemy within (read the review entitled 'Has clinical pharmacology lost its way' written by two eminent Italian clinical pharmacologists in the Lancet in 1984, peddling their own idiosyncratic vision of where the discipline should be going (Bonati & Tognoni, 1984)). Detractors have also tried to belittle clinical pharmacology by subdividing it into two disciplines —the first being an amalgam of chemistry, pharmacokinetics and the study of drug action (wondering if these should have remained in the domains of physiology and biochemistry), the second being therapeutics (which, according to some, cannot be separated from clinical medicine) (Mitchell, 1984).

How then should we view the fusion of academic Departments of Clinical Pharmacology with those of Medicine? As always, there are positive and negative aspects to be considered. The positive points are largely financial; as the Universities Funding Council has recently stated, small is not necessarily beautiful and a university department with few members of staff may prosper more within a larger umbrella organisation. Secondly, the service and research sides of clinical pharmacology may develop more easily with greater access to the patient population that a Department of Medicine may provide. Thirdly, there is in theory a better chance of influencing one's colleagues from within the same department and thus promoting the principles of clinical pharmacology to physicians in training. The negative points are cause for concern. While an equable arrangement between clinical pharmacology and medicine may continue as long as present incumbents remain in post within a federal department, what of the next generation of senior appointments? There can be no guarantee that clinical pharmacologists will be reappointed when their positions fall vacant; organ based clinical specialists may be perceived as being more valuable in providing patient care in an ever more financially conscious academic world. Secondly, recruitment of promising young medical graduates may well suffer as job prospects (never the best in clinical pharmacology) diminish even further with the contraction of the academic discipline. Thirdly,

the association of clinical pharmacology with basic pharmacology (which, after all, is its parent subject) may become more tenuous with this new association and the fruitful interchange between the bench pharmacologist and the clinical pharmacologist which many of us have fought hard to encourage, may be imperilled.

The frustration of this new threat to academic clinical pharmacology is that it comes at a time when demands for its expertise are at an all time high. It is now accepted that the principles of clinical pharmacology must be instilled into all medical undergraduates to ensure that they will be able to deal with problems of drug usage when they qualify. At the postgraduate level, changes in the National Health Service have made general practitioners aware, many for the first time, of the importance of rational and cost effective prescribing. The carrot of indicative drug budgets has resulted in greatly increased attendances at general practice teaching sessions in therapeutics. The plethora of available new drugs such as the products of molecular biology now appearing on the market present new educational challenges at both undergraduate and postgraduate level. Both pharmaceutical industry and drug regulatory authorities are avid for well trained clinical pharmacologists. Hardly a week goes by without an enquiry to a Head of a Department of Clinical Pharmacology from a major pharmaceutical company enquiring of availability of suitably trained personnel. Changes in the European drug regulatory scene will also require increased manpower requirements for well-qualified clinical pharmacologists.

What if any, are the solutions to this new situation in clinical pharmacology? Any department faced with imminent fusion with or take over by a larger group must obviously consider its options. Local circumstances will determine whether the establishment of a larger department is in the overall interest of clinical pharmacology. An ultimate sanction is that the General Medical Council insists that all medical schools must teach students about drugs and their clinical use, although it does not dictate how this is done. Of course, one way of avoiding a takeover is to increase the critical mass of clinical pharmacology. The opportunity must be grasped wherever possible to persuade Health Authorities to fund positions in clinical pharmacology in medical schools, based if necessary on a commitment to postgraduate teaching and the local provision of drug information. Industry itself should be invited to provide increased support for academic clinical pharmacology at both a junior (i.e. fellowship) and senior level. There are now several examples within the United Kingdom of the pharmaceutical industry providing massive support for departments of basic pharmacology. Why should similar arrangements not be put into place in clinical pharmacology? Drug discovery in the laboratory is useless unless it can be exploited in the clinic; the lack of well trained clinical pharmacologists may become a limiting step in the development of new products and so support from industry for training posts in the discipline is not altogether altruistic. Whether such support should come from individual companies or be masterminded by organisations associated with the pharmaceutical industry (e.g. the Association of the British Pharmaceutical Industry) is open to debate.

Critics of clinical pharmacology accuse us with some justification of having overplayed our hand in the past and having made excessive claims for the discipline. The suggestion of the late 1970s that every District General Hospital should have its own Consultant Clinical Pharmacologist was clearly premature; there are currently less than ten NHS consultants professing clinical pharmacology as their main speciality. The present situation that I have described is, I believe, potentially serious; the seemingly innocuous fusion of departments within some medical schools may set in train a series of events which may inflict great damage on clinical pharmacology.

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