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Editorials

THE COLLEGE'S JOURNALS: PAST, PRESENT AND CHALLENGES FOR THE FUTURE

In presenting a new periodical work to the attention of the medical profession the editors think it necessary to say a few words in explanation of their design. The object is the improvement of medicine by collecting the scattered hints and registering the important acts connected with medical literature and medical practice ... the custom of disclaiming against the multitudes of similar publications is unreasonable. Their very existence is a proof that their utility is felt and acknowledged. ... all such periodicals, from the very nature and origin of them, have their periods of vigour and decay. They flourish and they fade.

Andrew Duncan Jnr., Editorial, *Edinburgh Med Surg J* 1805; 1: 1.

Editorials that examine the purpose and future form of their respective journals have erupted recently;¹⁻⁵ articles and books have hinted at the demise of the genre.⁶⁻⁸ Before retiring after nine years as editor of *Proceedings*, I am prompted to look at some of the issues underlying this introspection. It is not the intention to consider where this journal might or should go in the future—that is the prerogative of the succeeding editor—but to look back on the College's association with its journals, to consider the policies which have shaped *Proceedings* and, lastly, to examine some of the factors which are now contributing to widespread editorial unrest.

Historical note

The earliest scientific journal, the *Philosophical Transactions of the Royal Society*, began publication in 1665. By 1750 there were ten scientific journals in existence worldwide. Two hundred years later there were over eighty thousand. If the curve of number of journals plotted against time is extrapolated to the year 2000, the number would reach eight hundred thousand.⁹

The *Edinburgh Medical and Surgical Journal*, quoted above, was itself a metamorphosis. The Society for the Improvement of Medical Knowledge was founded in 1731 by the medical professors of the University and nine other physicians and surgeons. It published *Medical Essays and Observations* between 1733 and 1744, edited by the Society's secretary, Alexander Monro *primus*. It ceased to appear for ten years, reappeared in 1754 and continued until 1765. In 1773 *Medical and Philosophical Commentaries* continued the purpose but later changed its title to the *Annals of Medicine* in which guise it persisted until 1805 when the *Edinburgh Medical and Surgical Journal* was born. Although in London the Royal College of Physicians began to publish its transactions in 1768 only six issues appeared during the next fifty two years. This prompted the following comment in the Edinburgh journal in 1813: 'The College (London) now and then finds a little leisure and now and then feels a little zeal, for the cultivation of medical science. These paroxysmal exertions occur, it is true, but seldom and at distant periods, like the visits of influenza'.¹⁰ The Edinburgh journal was 'studious and gentlemanly. It was much more than a local Scottish journal but often stressed

the superiority of Scottish medicine. Slightly snooty in tone it rarely missed an opportunity to swipe at London and remind it that Edinburgh was the Athens of the north and cradle of the most advanced doctors and medical opinion in the world¹⁰—which was true of the time.

At a quarterly meeting of the Edinburgh College in 1825 it was agreed that it should publish regular 'Transactions' but no action ensued and the proposition was not discussed again until 1953. After a somewhat shorter gestation the first issue of a publication appeared in January 1971 entitled *Chronicle*. Its function, as outlined in the first editorial, was to convey information on Council decisions, reports of the secretary and registrar, a presidential review and notices of library affairs, honours and deaths. In 1984 the additional title of *Proceedings of the College* was introduced along with College lectures, and clinical reports and short communications were added. David Boyd was then editor and when I succeeded him in 1987, the *Chronicle* title was dropped in favour of *Proceedings*.

POLICY OF PROCEEDINGS

With Reg Passmore and, later, Arthur Kitchin as deputy editors we set out to render the journal 'studious and gentlemanly' like its distant predecessor. We believed that a complete medical education included some familiarity with general literature, the arts and above all, history. A glance through some of the titles of our in-house editorials over the years illustrates this—*Language the Tool of Thought, Matters of Probity, Enthusiasm, Approaches to Comedy, Approaches to Tragedy, A Complete and Generous Education, Altruism, Museums, and Architecture in Medicine*. We believed that the complexity of illness with personal, social, occupational and even political influences, is such that there must be advantages in the education of doctors beyond the limits of textbooks and conventional journals. In encouraging contributions on language, literature, poetry and art, but above all on history, we have pursued our aim. It continues to be facilitated by the total editorial autonomy allowed by Council which, to its outstanding credit, has never attempted to influence policy, editorials or any other content of the journal.

With over half the Fellows and Collegiate Members overseas, opportunities for them to participate at first hand in the College activities is clearly limited. Although continued medical education is an important College activity, perhaps second only to that of conducting the higher examinations and the supervision of specialist training, College symposia and workshops only benefit the few who can attend them, either at the conference centre in Edinburgh, or at regional medical schools in the UK or occasional joint sessions with overseas Colleges. *Proceedings* therefore sought to make the best contributions at all educational meetings available worldwide. Selected contributors are asked to produce manuscripts based on their lectures, but updated and expanded as desirable; as the drafts are edited and some are peer-reviewed, the final published version may be an advance upon the original lecture. These articles together with some commissioned on topical issues form the bedrock of the science section. There are also free communications. The regular letters of social, political and medical comment from Australia and elsewhere and the series on the Health Services of other countries reflect the width of the College Fellowship. The coverage of cultural matters is in part provided by publishing addresses given in the College by distinguished writers, lawyers, politicians and churchmen. One of the strongest

features has been the section devoted to the history of medicine, items in which, through Medlars and Histline are frequently cited. The Retrospect series in which distinguished physicians and surgeons have looked back at their life experience and careers should provide inspiration for the present generation of young doctors.

A few very specialised papers have been published. There are serious disadvantages in excessive fragmentation of medical information although the sheer volume of research reports have required the growth of journals catering solely to a single discipline. However, the College has responsibility for the continued training and education of all physicians including those who work in the underdeveloped countries where the advanced technologies of investigation and care are restricted or not available; we are therefore not solely concerned with the technology based medicine of the 21st century towards which the health services of the developed countries are moving.

On change and the pressure for it

It is not always easy to recognise the point in time at which institutions and their activities must undergo change. As Lucius Cary, the 2nd Viscount Falkland, told the Long Parliament in 1641, 'When it is not necessary to change, it is necessary not to change'.

Yet there is substantial evidence that in any one journal only a minority of articles are read by any one individual and only a few are subsequently cited and so widen potential readership.¹¹ Because of the information explosion of recent times the young and relatively inexperienced, who are still in a major learning phase, yearn for synoptic presentations. For them, language and textural clarity of expression may be less appreciated than the ready availability of information. Many authors and editors have accommodated this view leading to the use of what Rüs had described as 'technical, anaemic, tribalistic, scientific language'.¹² The boxed 'key-messages' now favoured by some journals replace conventional summaries, and for a generation wedded to watching screens this mode of display is comfortable.

The pressures exerted on doctors by increased workloads and administrative commitments diminish the opportunity for leisure and thoughtful professional reading. Hence the popularity of abstracts and key summaries, whereas the important part of most scientific communications is the discussion in which the uncertainties and nuances are emphasised.

It is a drawback of *Index Medicus* and other selection systems that reviews and critical commentaries are often unrecorded. Journals may be faced with a Catch 22 situation: unless the greater part of the contents are reports of research, they are unlikely to be included in indexing systems and then such journals cannot attract that type of communication. Much considered wisdom enjoys thereby a limited readership.

A recent development is the establishment of two new journals: *Evidence-based Medicine* and the *Journal of Evaluation in Clinical Practice*. Other journals have begun to respond to the clamour of protagonists of this fashion¹³ but there is little revolutionary in the essence of the concept—that clinical problems are best solved by turning all the issues raised in the investigation and care of individual patients into questions; the literature relevant to the questions is then located in computer databases. The information gleaned is critically appraised and

the message then applied to the needs of the patient.¹⁴ It is of interest to learn that 'in the absence of suitable review articles clinicians *who have acquired critical appraisal skills* will be able to evaluate the primary literature for themselves'.¹⁴ Unfortunately evidence based medicine (EBM) cannot provide guidance where evidence is lacking. Furthermore the consensus reached by studying many reports and meta-analyses may not be applicable to an individual patient because so many aspects of management reflect multiple factors, and the interaction between a patient and management is often idiosyncratic and not open to measurement.¹⁵ There is thus resistance to turning over clinical reporting to the EBM pattern. In a thoughtful commentary on present trends in medical practice, Yates emphasises the risk of reductionist exercises—'the myriad non-Newtonian entailments that constitute the causal nexus of a living system assure us, and we physicians will ever be wise to insist, that each patient and his or her diseases is a unique combination. The residual uncertainties about clinical outcomes is as fundamental as the uncertainties of statistical mechanisms—we cannot measure all we need to measure. Physicians still do best to regard every level associated with the patient as being equally sovereign, from his or her genes to family and social contexts'.¹⁶

Contemporary opinion may be best regarded as a dwarf whose learning is recent and stature deficient. But 'the dwarf sees further than the giant when he has the giant's shoulders to mount on'. This concept comes from 12th century renaissance and is attributed to John of Salisbury, Bishop of Chartres in 1176: it finds physical expression in the Cathedral there, where stone images of dwarf-like apostles ride upon the shoulders of images of the prophets. A high proportion of free communications to journals do not survive critical scrutiny and are ephemeral. Hence the importance of reviews and reappraisals, and of historical records of both the play and the players.

Another feature of the present day to which editors and publishing institutions such as the Royal Colleges may need to pay attention is the growth of consumer groups and organisations related to particular disorders. There are also 'outcomes' vigilantes scrutinising the performances of doctors and hospitals. Most citizens are untutored in evaluation (think only of the ratings for television programmes and the sales of the tabloid newspapers). To counter uninformed opinion and modulate populist intervention in public debate on health issues, information has to be made available in a style accessible to the man in the street yet without sacrificing scientific truth. Medical Royal Colleges now have press officers. Regular extraction of material from *Proceedings* and similar journals could be made available to the media, institutions, consumer groups and community centres. Extending in this manner the College journal from the profession to the people is not just wistful thought. Thirty four percent of articles deemed useful for the public published in the *New England Journal of Medicine* and the *Journal of the American Medical Association* in 1988 were noted and covered by ten major newspapers in the USA.¹⁷ Of these, three quarters were printed within two days of the journal being issued.

THE CHALLENGES OF THE ELECTRONIC REVOLUTION

The main stimulus to the editorial and publishing re-appraisals is the rapid advance in the communication and storage of information by electronic systems. Research physicists have been communicating electronically for fifteen years and the Alamos computer has become a vast repository of reprints used daily by

thousands of physicists worldwide.¹⁸ International information highways, the linkage of universities, laboratories and industrial establishments via Janet and other systems with which individuals can connect are especially appropriate for what is potentially ephemeral in science. The threat is most immediate for journals publishing reports of research, trial results and preliminary experiences with procedures. Using the Internet and other links, comment and analysis can be rapidly communicated, authors can make changes to the original material and, as research proceeds, the information can be repeatedly updated.¹⁹ Furthermore the electronic highway provides the possibility of access for scientists in developing countries with rapid interchange through E-mail. An inherent risk in these circumstances is the possibility of a too rapid reaction sending enquiry off in a direction soon shown to be inappropriate. With the written word the conventional time delay provides a cooling-off period. Another potential disadvantage of on-line information is that it may increase the tendency to consult only selected material; the danger of 'knowing more and more about less and less' could reach new heights, which would be wholly unfortunate for the broader education of practising doctors.

The second challenge to conventional publications, or opportunity according to viewpoint, is represented by the CD Rom (compact disc read only memory). A CD Rom has the capacity to store up to 300,000 pages of text. On a single disc can be reproduced every article published in this year's *Lancet*, *British Medical Journal*, *Annals of Internal Medicine*, *New England Journal of Medicine* and the *Journal of the American Medical Association* and still have room for *Proceedings*.²⁰ Thus for everything without a sell-by date, for reviews, essays, addresses, retrospects, and all historical material, an annual or biannual purchase of a CD Rom could provide the relevant items from ten important journals. These can be slotted into the computer in a workplace or at home and either read off the screen or printed out. In due course it is likely that an extension of electronic mailing will allow subscribers to download material in which they are interested on to a CD Rom or other storage disc.

Because it is possible to have text, colour photographs, video clips, animation and stereo-sound on multi-media CD Roms the implications for teaching and training in medicine are obvious. Some discs in existence already include choice questions and can print out the results of addressing them.

Thus within the next decade there will come the time when few will depend upon the arrival of a journal to obtain new information and small discs stores will come to replace the yards of bookshelves and filing cabinets. The implications in terms of the cost of printing, purchase of paper, and postal services are clear and are as relevant to the Royal Colleges as to any other institution.

One possibility for publishing bodies like the College is to become ultimately a 'web-site' in which submitted publications, the reports of workshops, images and reference lists can be electronically stored as a 'house-page' available to Fellows and Collegiate Members, libraries and other subscribers who have access to a computer and modem.

For the immediate future the facility of *Proceedings* to publish lengthy, extensively referenced reviews, addresses and historical articles should increase its value in medical education as conventional journals are forced to face the realities of the superiority of electronic communication for potentially ephemeral clinical and scientific reports. *Proceedings* also aims to entertain and until the great

majority of its readership, here and overseas, find the mouse and the modem in their grasp more often than the pen, I believe its place is assured.

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ANCIENT GREEK MEDICINE

The natural life of all men and women is full of uncertainties and at any moment disease and disaster may strike us; the only certainty is that each of us will die. Primitive people believe that the course of their lives is determined by capricious gods and spirits who have to be propitiated. Nearly three thousand years ago Greeks began to use reason and accurate observation in the search for the existence of order in life and so for rules which, if followed, enabled mankind to avoid diseases and by treatment to assist the healing powers of nature. The process has been slow and it was not until this century, and especially in the last fifty years, that the medical profession has been effective in preventing and treating many of the diseases that previously took a heavy toll of life, such as tuberculosis and lobar pneumonia. But for many diseases, rheumatism, mental disorders and cancer are examples, there is not sufficient understanding either to prevent their occurrence or to provide a cure and patients continue in unscientific ways to attempt to propitiate the gods.

Textbooks and journals published today provide little understanding of the rational processes that have led to our recent successes or of the errors that lead to so much ill-conceived therapy (two thousand years of bleeding and purging) and we do not know how much disease the medical profession is responsible for today. Our present teachers and research workers are but 'dwarfs standing on the shoulders of giants' (Editorial p 4). It is wise to learn something about the giants of the past and the widening viewpoints that they have provided.

This issue of *Proceedings* contains the first of three articles on *Rational Medical Philosophy in Ancient Greece*. It covers the period, before the Hippocratic school on the island of Cos was founded, when rational medical thought arose from philosophers' ideas on the properties of nature. The second article will be on Hippocratic and the third on Galenic medicine. Galen was a Greek who had settled in Rome and whose teaching spread throughout the Roman Empire and became the bedrock of instruction in the medical schools in Europe until the seventeenth century and the time of William Harvey.