Open access publishing:

a new direction for medical journals

The 'business model' for academic science and medicine publishing has been unchanged for many years and is often, to the outside observer at least, regarded as distinctly strange. Researchers conduct studies for which they will generally have succeeded in winning funding in a competitive process, although some research is 'own account' funded or not specifically funded at all. The resulting articles are written with a view to submission to the most appropriate journal in the field, chosen on the basis of reputation, citation, and likely interest in the topic of research. After satisfactory peer review and revisions, the articles are accepted for publication and scheduled for online and print publication. No money has changed hands. Peer review is almost always unremunerated, although a minority of journals offer a token of appreciation, such as a few months' subscription or, in one case, the opportunity to receive a music CD or to donate the equivalent sum to a medical charity. Peer reviewing is thought to cost British universities around £200 million a year.¹

The journal then starts to make money in several ways. It sells subscriptions to institutions, such as universities and libraries, sells individual subscriptions to other readers, and also operates a paywall system so that non-subscribers have to pay a fee to download and read each article (pay-per-view). Institutional subscriptions are costly, often several hundred pounds a year, and British universities pay well over £200 million a year in journal subscriptions. Pay-per-view charges are also high, typically in the £20–35 range per article: the charge for the *BJGP* is around £18 + VAT. In addition, the journal uses the readership interest generated by the articles it publishes to attract advertising revenue, another major source of income for many journals. Some journals publishing large trials of new drugs make large amounts of money by selling reprints of the articles to the pharmaceutical companies involved.

In the last few years ideas for a new business model for science publishing have emerged, based on 'open access', that is, the immediate publication of accepted peer reviewed articles without subscription or pay-per-view charges. This development has been accelerated by the increasing use of online publication in which rapid

publication becomes possible. There are already a number of online-only open access journals in the medical, life, and physical sciences; in some ways, medicine has lagged behind in these developments.

OPEN ACCESS

In open access publishing the money goes round differently. The researchers include a request for funding to pay a charge (the article-processing charges or APCs) to the publisher for rapid online open access publication of their articles(s) once accepted. The current range for APCs in medical publishing is around £1000–2500 per article; not a large fraction of a major research grant, but a very significant sum for research that is not externally funded or which has been conducted with no funding at all.

The thinking behind this is that if research is publicly funded, then the public as well as the science community and those subscribing to journals should be able to see the results of the research right away. It is also argued that faster and more ubiquitous publication will lead to more rapid uptake of research findings, with financial and societal benefits. Open access publishing and the payments of APCs for all articles accepted would mean that university libraries no longer need to pay institutional subscription fees because the funders of research bear the costs of funding reports of its outputs. Individual readers and researchers would be able to read the newest research without charge. Journals publishing only original research would no longer be able to charge subscriptions or pay-per-view fees, although a modified subscription structure could be retained for the non-research material carried by many journals. The APCs for individual journals would need to be set to ensure financial viability in an increasingly digital environment and with

regard to the impact of new publication methods on advertising revenues.

THE FINCH REPORT

Published in June 2012, *Accessibility, Sustainability, Excellence: How to Expand Access to Research Publications* is Dame Janet Finch's report answering the question of 'how to achieve better, faster access to research publications for anyone who wants to read or use them'.² The report concludes that the UK should set a clear policy direction towards support for publication in open access or hybrid journals (that is, journals in which research articles can be accessed free of charge, with a subscription or other charge required for content, such as editorials and commentaries), funded by APCs, as the main vehicle for the publication of research, especially when it is publicly funded.

Other recommendations include the need for other funders to follow the lead of the Wellcome Trust in requiring open access to the research they fund; the lifting of restrictions on the rights of use and re-use of published data; the vigorous pursuit of walk-in access to the majority of journals in public libraries across the UK; universities, funders, publishers, and learned societies to work together to promote further experimentation in open access publishing, and avoidance of undue risk to valuable journals that are not mainly funded by APCs.

The recommendations of the Finch Report appear to have been enthusiastically accepted by the UK Science Minister, David Willetts, who announced in July that he expected a full transformation to open access over the next 2 years. He has suggested that financial protection for journals and institutions should be found from the science budget. There has been some controversy about whether we should be going for 'gold' open access, in which the

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financial security of journals and publishers is ensured in the short term by transitional funding from within the science budget and in the longer term by the widespread incorporation of the APCs in research grants. A 'green' open access suggestion, in which researchers simply make their articles freely available online after they have been accepted by journals would be fatal for journals and learned societies.

WELLCOME TRUST, RCUK, AND NIHR

The Wellcome Trust³ and the Research Councils UK⁴ have recently announced a change to their open access policies. Research articles funded by these bodies and published under an 'author pays' model must be made freely available at the time of publication and published under the Creative Commons Attribution Licence (CC-BY).⁵ CC-BY has now emerged as the standard licence for open access publishing by commercial and non-commercial publishers who recoup their costs from publication fees and other revenue streams. The CC-BY requirement will become effective for research articles submitted for publication from the 1 April 2013.

The NIHR (National Institute for Health Research: the NHS's research and development programme) has similar aspirations, although its current policy statement and guidance are less prescriptive.⁶ In July the Higher Education Funding Council for England emphasised the need for research articles to be freely available when they are submitted for the Research Excellence Framework.⁷

IMPLICATIONS FOR THE BJGP

Open access publication has been on the BJGP agenda for some time but up to now we did not think that primary care publishing was ready for it, mainly because a good deal of the material published in the Journal reports research undertaken without major grant support. Recognising that the move towards open access was picking up pace, we have analysed the last 2.5 years of articles published in the Journal and found that about 50% of them were funded by organisations likely to include

APCs in their research grants. However, 50% were not: these are articles based on studies funded by smaller grant-giving bodies or without specific funding, 'own account' research, or in practices or other settings with no funding at all. Furthermore, 38% of research articles published in the BJGP in 2011 were from outside the UK, and the implications of charging authors in other countries for open access publication in the UK also require consideration.

Given the deadline set by Wellcome and the research councils — and a few BJGP articles each year are funded by the Medical Research Council or the Economic and Social Research Council — we need to clarify our plans for the Journal. The potential impact on the subscription model of BJGP/RCGP funding will require examination and planning. Anecdotal reports from other society journals with open access to research suggest that this need not be a major problem, but we will need to explore, for example, the possibility of a hybrid funding structure for the journal, the business plan and the level of APCs required to sustain publication, and the associated questions related to online and paper dissemination, with care. The government is looking at an important VAT issue arising from the Finch report — controversially, e-journals are not VAT-exempt, in contrast to printed academic journals — and there is now considerable pressure to review this EU-imposed legislation.

We have already begun discussions on open access at the BJGP's Editorial Board and International Advisory Board, and will be developing policy through further discussion within the College in the coming months.

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