



Private prescription:

A thought-provoking tonic on the lighter side

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Please note that these are the personal opinions of the author and do not necessarily represent those of AstraZeneca.

Publish or perish

Nick Downes, the successful science cartoonist, has a superb cartoon in which a rather frightened professor is sitting at his desk in a sumptuous office. Alongside him is a bespectacled, balding man in a suit and bow tie, presumably the Dean of the Faculty, while in front of him is a sinister looking man in dark glasses and overcoat carefully screwing a silencer onto a handgun. The Dean is saying 'Surely you were aware when you accepted the position, professor, that it was publish or perish'. No doubt this will strike a chord with many of the scientists working in academia as will also the sentiments expressed in the limerick [1]:

Publish or perish! That's the scheme.
We must all play the game 'academe'.
Winning fame and acclaim;
Is the goal of that game.
It does wonders for one's self-esteem.

In this competitive age, publication is a fact of life and vital to career progression. This need to publish at all costs to increase the number of publications on one's Curriculum Vitae has resulted not only in many failed manuscripts being resubmitted many times over until publication is achieved but also in the increased prevalence of

duplicate or redundant publication. Not that resubmission of failed manuscripts is a new phenomenon. Twenty years ago the following advice was published in the *Chemical Engineering Journal* [2]: 'Don't get frustrated if the article is returned with a note to the effect that, although it is a good article, the journal will not be able to publish it. Try another journal, and then another. If you still can't make it, again store the piece away for some time and then go back and polish it.'

'Counting the publications on one's CV'

Rejected manuscripts

Research on the fate of rejected manuscripts is limited. However, a recent article on the fate of manuscripts rejected by a general medical journal [3] provides some answers. The authors used a retrospective cohort study design to examine 350 manuscripts rejected by the *Annals of Internal Medicine*, a general medical journal during 1993 and 1994. They then searched the Advanced PubMed online database (<http://www.ncbi.nlm.nih.gov/PubMed>) to assess the number of manuscripts that were subsequently published in different journals, the time to eventual

publication, the journal type (general versus specialty) and journal impact factor. They found that of the 350 rejected manuscripts, 240 (69%) were eventually published after a mean of 552 days (range 121–1792 days). Of the 226 rejected research articles and reviews, 159 (70%) were subsequently published in specialty journals with a mean impact factor of 3.09 (range 2.80–3.37) compared to the then impact factor of the *Annals of Internal Medicine* of 9.60. Fourteen of the 226 manuscripts were published in medical journals not rated for impact – presumably a magazine type journal.

In many ways this article raises more questions than it answers. It is not known on what grounds the manuscripts were initially rejected, whether the manuscripts were modified in the light of the referee's comments and the number of times they were submitted elsewhere either before or after they were rejected. If they were rejected initially because they were considered too specialized for the *Annals of Internal Medicine* then the subsequent shift to a specialty journal is probably desirable and rational albeit that these journals invariably have a lower impact factor. If the authors had used the referee's comments to revise their manuscripts, these contributions should have improved the manuscripts and increased their chances of subsequent publication. However, the conclusion is still the same; perseverance results in a high probability of publication, thus increasing the numbers of publications on a CV.

In their discussion of these results, the authors [3] suggested that it might be advantageous for communities of journals to consider the advantages of a common database with the use of a universal manuscript identification coding system. I must admit I would welcome this if it would mean not receiving manuscripts for review that I

had previously rejected for another journal. However, since this has only happened twice in my career and then at the time I was reviewing for 12 journals, it is probably unnecessary. Nevertheless, it would help to curtail the growth of duplicate or redundant publication.

Redundant publication

Redundant or duplicate publication is defined by the Committee of Publication Ethics (<http://www.publicationethics.org.uk>) as occurring 'when two or more papers without full cross reference share the same hypothesis, data, discussion points or conclusion', in other words, a paper that overlaps substantially with one published or submitted elsewhere. Exceptions are publications in languages other than English, publications in local or regional journals or abstracts at scientific meetings. However, in every case full disclosure of previous publication is required.

Although redundant publication is accepted as a problem, data on its prevalence is limited. However, recent research in the specialized area of surgery has provided some answers [4]. The authors used PubMed to screen 660 original articles (excluding reviews, editorials, abstracts and letters) published during 1998 in three prestigious surgical journals. Of these, 92 articles resulted in 147 suspect

papers found in other journals representing some potential form of a redundant publication. These were compared against the indexed article and graded as 'dual', potentially dual' and 'salami-slicing'. Twenty articles (13.6%) met the first criteria, 50 (34%) met the second and 77 (52.4%) met the third. Of the 147 suspected articles, 69% were subsequently published in other surgical journals and 8.1% appeared in, or originated from, a 'local-foreign' journal. The vast majority of articles was published within approximately one year of the original indexed article and was not cited by the latter – there was no disclosure of previous publication.

Comment

If this trend is proven to be widespread in other fields of science (and there is no reason to doubt it), the problem must be addressed, if only to prevent the already extensive scientific literature base from becoming further inflated and making searching even more difficult. Whether it is a threat to the quality and intellectual impact of scientific publication, as some purists regard it, I remain to be convinced. It could be argued that scientists, in their insistence that the quality of a piece of research work equates with the impact factor of the journal in which it is published, have perpetuated and exacerbated the problem. High impact

journals often have long article turnaround times and might not be widely read by the originally intended target audience. The authors will then wish to republish in a more suitable or specialty journal, maybe one specifically aimed at that audience. Provided this is not done just to increase the number of publications then there is no ethical problem. The same applies to republication in other languages. Surely the prime intention of republication should be to disseminate the information as widely as possible and this should be taken into account when reviewing a CV. It should not be the number of publications that is important or even the impact factor of the journals – all journals should be regarded as equal – but the value of the work to its target audience and whether or not it even reached its target audience. A good piece of work that ends up laying buried in a journal, albeit of high impact factor, and is never acted upon by its target audience is of little use to anyone!

References

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- 3 Ray, J. *et al.* (2000) The fate of manuscripts rejected by a general medical journal. *Am. J. Med.* 109, 131–135
- 4 Schein, M. and Paladugu, R. (2001) Redundant surgical publications: Tip of the iceberg? *Surgery* 129, 655–661

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