The New Zealand Medical Journal, Thomson Reuters ISI, and the impact factor

Frank A Frizelle

In this issue of the Journal a letter from Broad and Connolly\(^1\) correctly point out that “until the [New Zealand Medical] Journal went electronic, it was rated by Journal Citation Reports (JCR) with the journal impact factor mostly within the range 0.6 to 0.7.\(^2\) Immediately after the print edition ceased, citations to NZ Med J (NZMJ) in the Science Citations Index fell noticeably.”

In fact they stopped altogether. The reasons relate to the difficulties that have arisen trying to get the organisation that undertakes citation indexing—Thomson Reuters Institute for Scientific Information (ISI)—to replace the NZMJ print version with the NZMJ electronic version in their indexing calculations.

In 2002 the New Zealand Medical Association (NZMA) decided—for sound financial reasons—that the costs of producing the NZMJ needed to be reduced substantially. As a result, the NZMJ was changed to an electronic format. This reduced the production costs considerably and made its publication sustainable. There were many reasons why this happened at this time, including substantial and increased production and distribution costs, and the reduction in advertising revenue due to the impact of PHARMAC (reducing the need to advertise pharmaceuticals to doctors).

The issue at the time was whether to cease production of the NZMJ completely or turn to a different medium. As a solution to this problem, the electronic version was started in mid-2002 when I took over as editor for the first issue of the electronic or online (Internet-based) NZMJ.

Now with 8 years behind it the online NZMJ has become well established, attracting a large number of quality submissions both from within New Zealand and overseas. In general we accept between 13–15% of submitted articles. The Journal is published 20 times per year with a particular focus on New Zealand-based research relevant to the New Zealand medical environment.

The online NZMJ has no impact factor however, although we are listed in PubMed and other online tracking sources as outlined in the letter by Broad and Connolly.\(^1\) Many readers will know what an impact factor of a journal is, however for those of you who don’t, impact factor is a product of Thomson Reuters ISI (Institute for Scientific Information). Thomson Reuters ISI generate impact factor and provide it for a fee to people who want to know a journal’s value.

A journal’s impact factor is a measure of the frequency with which the “average article” in a journal has been cited in a given period of time. The impact factor for a journal is calculated based on a 3-year period, and can be considered to be the average number of times published papers are cited up to 2 years after publication.
For example, the impact factor 2010 for a journal would be calculated as follows:

- $A =$ the number of times articles published in 2008–9 were cited in indexed journals during 2010.
- $B =$ the number of articles, reviews, proceedings or notes published in 2008–2009.
- Impact factor 2010 = $A/B$.

(Note that the impact factor 2009 will be actually published in 2010, because it could not be calculated until all of the 2009 publications had been received. Similarly, impact factor 2010 will be published in 2011).

The importance of an impact factor—besides editors saying “my impact factor is bigger than yours”—relates to how researchers (and their funders) view publication in high-impact journals as an indicator of quality research.

Publishing in high-impact journals is considered the thing to do, especially seeing it has a significant influence on performance-based research funding (PBRF) in university departments as well as in staff promotion rounds and the ability to attract external research funding.

However there are many detractors of the impact factor, particularly how it is altered by the influence of high-impact journals altering numerator/denominator ratios by having regular discussions with Thomson-Reuters ISI to find out how to enhance these. Also there are others who wonder about the relevance of all this to what should be published in the first place—i.e. what is the goal of publishing certain articles, is it to educate/inform the clinician or is it for referencing by researchers? These issues aside, there is a demand for the impact factor and Thomson Reuters ISI provides this service at a cost.

The NZMA were keen to maintain an impact factor so they informed Thomson Reuters ISI in 2002 that the *Journal* was changing to an electronic mode and that the ISSN number would change. For a couple of years the *NZMJ* impact was published using only the print copy data (as described above, changes to the impact factor take a couple years to work through).

Over this period it was initially thought from the correspondence with Thomson Reuters ISI that the impact factor would follow the electronic journal over time. However this was not the case. Instead Thomson Reuters ISI just dropped the online *NZMJ*. This started what has been an ongoing discussion (and meeting with) Thomson Reuters ISI staff about what was required to reinstate an impact factor.

Initially we were told they did not have the tools to deal with an electronic journal (remember this was 2003/4) however then some major journals (e.g. *BMJ* and *NEJM*) decided that their publication or record would be the electronic copy and Thomson Reuters ISI adjusted to their requests.

Then we had further discussions whereby they wanted page numbers (reflecting an article PDF’s position in the full contents PDF) and each individual article having unique URL addresses/identifiers (we were already doing the latter). Therefore we reformatted the *Journal* to meet their requirements, however we have been unable to engage them in any meaningful progress despite repeated attempts.
Despite occasionally receiving some positive comments via email from Thomson Reuters ISI at no point have we made real progress. At one point, Thomson Reuters ISI agreed to generate an impact factor based solely on citations in other journals as they said they couldn’t do internal citations (citations from other NZMJ articles), however the following year further attempts to progress failed. So in reality the online NZMJ, which is now 8 years old, has never had an impact factor.

I would very much like Thomson Reuters ISI to generate a correct impact factor for the NZMJ and will continue to try to make this happen, however to date I have been unsuccessful. The NZMJ is still available on PubMed and other electronic publication tracking mediums, and we continue to receive plenty of good submissions.

Whatever impact we are making we are not able to assess it using the formula of Thomson Reuters ISI.

Author information: Frank A Frizelle, Editor, New Zealand Medical Journal

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Correspondence: Professor Frank A Frizelle, Department of Surgery, Christchurch Hospital, Private Bag 4710, Christchurch, New Zealand. Fax: +64 (0)3 3640352; email: frank.frizelle@cdhb.govt.nz

References:
