



Kath O'Connor

# Forty-two and other numbers

In 2007, Thomson Reuters (then Thomson Scientific) included *Australian Family Physician (AFP)* in its Science Citation Index Expanded (SCIE). This was certainly a boon for the journal and the College to be included among the journals reporting the 'world's most influential research'<sup>1</sup> and had the potential to make publishing in *AFP* more attractive for authors. However, when the 'impact factor' based on the data collected in the SCIE is released each year it feels somewhat like the announcement in *The Hitchhiker's Guide to the Galaxy*<sup>2</sup> – that the answer to the ultimate question of 'life, the universe, and everything' is 42.

Thomson Reuters calculates a journal's impact factor by dividing 'the number of citations in the Journal Citation Reports (JCR) year by the total number of articles published in the two previous years'.<sup>1</sup> This year, *AFP*'s impact factor is 0.729. This means that for every hundred articles published in *AFP*, about 73 articles are cited. However, this is merely a technical definition – we need some background to make this number meaningful. As in the hitchhiker's guide, there is a need to consider what the question was, as well as the context.

The question behind the impact factor is about influence. The more an article is cited, the more influential it is considered to be. The more articles with high citation rates in a journal, the more influential that journal is considered to be. Influence relates to influence in the research community. Importantly, the impact factor of a journal that publishes an author's articles can influence academic promotion and allocation of funding.<sup>3</sup>

At *AFP*, publishing articles of influence to the research community is only part of our remit. We also strive for a clear clinical focus in all

our articles (including research articles) and while articles that are important to the research community may be important clinically, this is not necessarily so. Perhaps the more useful question at *AFP* is whether an article influences clinical practice. Thomson Reuters also offers assessment of journal usage as an additional measure of influence to the community.<sup>1</sup> However, no truly reliable measure of a journal's clinical impact is currently available.

In order to understand the context of the number 0.729, it is important to read the fine print in Thomson Reuters' JCR.

In 2011, the contribution of *AFP*'s self-cites to its impact factor was 13%, and *AFP*'s impact factor has increased over the past 3 years from 0.570 in 2009, to 0.647 in 2010 and then 0.729 in 2011. Arguably, this steady increase reflects an increase in the importance of *AFP* to the research community over the same time period.

The impact factor can be distorted by various factors, including deliberately by an editor who promotes self-citation, or who influences the total number of articles (the denominator of the impact factor).<sup>3</sup> Thomson Reuters is aware of this and states that it does not publish the metrics of any titles that have 'anomalous citation patterns resulting in a significant distortion of the journal impact factor'.<sup>4</sup>

In the focus articles in this issue of *AFP*, there are several reminders of the importance of seeking and understanding context around numerical values. In 'Thyroid disease in the perinatal period', Simon Forehan<sup>5</sup> outlines the importance of using pregnancy-specific reference ranges to define and guide treatment of thyroid conditions in pregnancy and in 'Hypothyroidism: investigation and management', So and colleagues<sup>6</sup> describe how the decision around whether to treat subclinical hypothyroidism can depend not only on the level of TSH, but also on other factors including symptoms and the presence of antithyroid antibodies or a goitre.

Also in this issue, Hughes and Eastman<sup>7</sup> outline the causes, investigation and management of goitre in the Australian general practice setting, and Campbell and Doogue<sup>8</sup> describe the clinical presentation and evaluation of a patient with thyrotoxicosis.

It's always good to be reminded to treat the patient, not the numbers. As GPs we look at scores of numerical values every day. Interpreting these numbers requires that we understand both the patient and the clinical context. And, if the next step is still unclear – as in the hitchhiker's guide – we may need to consider what question we were asking in the first place.

## Author

Kath O'Connor MBBS, FRACGP, is Medical Editor, *Australian Family Physician* and a general practitioner, Castlemaine, Victoria.

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correspondence [afp@racgp.org.au](mailto:afp@racgp.org.au)