Open access publishing in gastroenterology: good for the researcher and good for the public!

We wish to highlight the readers the benefits of making their work open access. Advances in the internet have enabled a rapid growth in open access publishing.¹ However, most scholarly articles still remain behind paywalls.²

Open access publishing has numerous benefits. First, open access publishing enables equity of access, with access not dependent on income. Anyone with an internet connection has the opportunity to access research published via the open access route and possibly use this in novel ways not conceived by academic institutions.³ It is also important that the public have access to newly published research, as a lot of research activity receives public funding, with a moral obligation for reciprocity.⁴ Open access increases the accessibility of research to developing countries,³ which benefits society as a whole. Quality healthcare is often needed the most in these areas, with open access facilitating the worldwide dissemination of research.

Citation metrics can be important aspect of academic impact, with data on citation metrics of open access vs non-open access publications being variable. We reviewed the effect of open access publishing on citation metrics in the field of gastroenterology. We reviewed original research articles in *Gut*, *Gastroenterology* and the *American Journal of*

Gastroenterology (AJG). Publications were cross referenced with the Web of Science database to determine overall citation rates.

Between January 2009 and December 2013, 3057 original research articles were published (*Gastroenterology* (n=1431), *Gut* (n=732), *AJG* (n=894)). Of these, 154 (5.0%) were open access publications (*Gastroenterology* (n=13), *Gut* (n=70), *AJG* (n=71)). The proportion of open access publications was different between journals ($p<0.001$). The variation may have been due to different article processing charges requested by publishers, with open access publication rates known to be variable, dependent on publisher.⁵ Overall, open access publications in the three journals had significantly higher citation rates than non-open access publications (median citation rate: 38.5 vs 33, $p=0.044$), highlighting the benefits of open access publishing in the field of gastroenterology (table 1).

While there are significant benefits of publishing via the open access route, there are potential hurdles preventing widespread adoption. There are questions regarding the quality of scientific journal publishing via the open access route. It has been suggested that if journals collect fees from authors rather than subscribers, journals may accept substandard articles as their income is dependent on the number of articles published.⁶ There have been concerns about predatory journals offering to publish articles for a fee without the rigour of the current peer review system.^{7 8} However, the

methodological quality of studies has been demonstrated to be the same in open access versus non-open access publications.^{6 7} Cost may also be a barrier. With the Gold Model of open access publishing, the onus of the cost is with authors. However, there are groups aiming to shift the cost of open access publishing to funders or universities.⁹

To summarise, the benefits of open access publishing are significant, with our data highlighting the potential benefit on citation metrics for open access publishing in gastroenterology journals. We would recommend our colleagues to publish via this route.

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Table 1 Citation rates across all journals between January 2009 and December 2013

Journal name	Number of articles		Total	Median citation rate		P value*
	Open access (%)	Not open access (%)		Open access (range)	Not open access (range)	
<i>Gut</i>	70 (9.6)	662 (90.4)	732	47 (6–589)	33 (0–602)	0.001
<i>Gastroenterology</i>	13 (0.9)	1418 (99.1)	1431	42 (8–79)	38 (1–708)	0.863
<i>AJG</i>	71 (7.9)	823 (92.1)	894	30 (1–170)	28 (1–251)	0.364
Overall	154 (5.0)	2903 (95.0)	3057	39 (1–589)	33 (0–708)	0.044

*Mann-Whitney U test used to compare citation rates between open and non-open access publications.

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