Abstract

Objective: To assess the level of adoption of PubMed Commons, a pilot system allowing comments to be added to publications listed in the PubMed database by anyone who is an author on at least one PubMed-indexed article.

Research design and methods: A search was conducted using the term "has_user_comments[filter]" to capture all items with comments within the PubMed database between the launch and 29 September 2014. Publications receiving comments were then sorted by the type of publication (as designated by PubMed filters – clinical trials, reviews and full text), publication year and journal.

Results: A total of 1627 publications have received comments since the launch of Commons; they were almost all English language (99%) and approximately half were available as full text (50%). Although publications as early as 1972 received comments, most were from 2013/2014 (59%). Over half were human studies (54%), but those classified as clinical trials and systematic reviews/meta-analyses accounted for only 8% and 9%, respectively. The top five journals for publications with comments were Proc Natl Acad Sci USA (11%), New England Journal of Medicine (9%), Science (2%), Nature (2%) and Proceedings of the National Academy of Sciences (2.1%).

Conclusions: Levels of adoption of PubMed Commons have been very poor and only 565 of the 103,614 publications added to PubMed in 2014 garnered comments. Publications garnering comments often had open-access availability or were published in top-tier journals.

Introduction

• Scientific publication has always been a system of review and comment on published research via pre-publication peer review and post-publication “letters to the editor”
• Post-publication review now occurs much more rapidly, via social media (e.g., Twitter), online scientific communities (e.g., Faculty of 1000 or ResearchGate) or commenting forums within the publishing journal (e.g., PLoS One or New England Journal of Medicine)
• However, there are inherent problems with this system: anonymity, comments appearing across multiple disparate venues, and no requirements that those commenting are qualified to do so

PubMed Commons is a pilot system launched in October 2013 that seeks to address these problems by allowing comments to appear directly beneath abstracts within the PubMed database

• If adopted in a wholesale fashion, PubMed Commons would allow centralisation of comments in the world’s largest searchable database of biomedical literature
• However, unlike other venues, a comment can only be added by an individual who is an author on at least one PubMed-indexed article
• The means that comments cannot be added anonymously and that the person commenting should be qualified to do so with a degree of scientific rigour

Objectives

• To assess the level of adoption and type of comments added via the PubMed Commons forum since launching in October 2013

Methods

• A search was conducted using the term "has_user_comments[filter]" to capture all items with comments within the PubMed database between the launch of PubMed Commons and 30 November 2014
• Publications receiving comments were sorted by the type of publication (as designated by PubMed filters – e.g., clinical trials, reviews and full text), publication year and journal
• The type of comment was assessed by a random sampling of 10% of the publications using a random number generator (random.org) to pick entries from the chronological number of comments received by any single article was 17, but the vast majority (58%) of articles had ≤2 comments

Results

• A total of 1771 publications have received comments since the launch of Commons; they were almost all English language (99%) and approximately half were available as full text (99%, Figure 1)

• Over half were human studies (57%), but those classified as clinical trial and systematic reviews/meta-analyses accounted for only 8% each
• Supplementary data sets or the software used for a particular analysis

Conclusions

• Levels of adoption of PubMed Commons have been very poor, and <0.05% of publications added to PubMed in 2014 garnered comments
• Publications garnering comments often had open-access availability or were published in top-tier journals. However, the comments that were posted generally displayed scientific rigor or fulfilled a scientifically useful purpose
• If PubMed Commons is to fulfill its proposed role in the post-publication evaluation of published research, levels of adoption must improve and commenters must disclose any pertinent conflicts of interest

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