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MEDIA RELEASE

MEDICAL JOURNALS RISK QUALITY WITH COVID-19 RAPID RESPONSE

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RAPID dissemination of information should not come at the expense of quality, ethical standards or oversight, according to the authors of a Perspective published online today by the *Medical Journal of Australia*.

"Medical publishing uses peer review to provide independent and critical assessment to verify data integrity, validity of interpretations, and confidence in conclusions," wrote the authors, led by Professor Michael Reade, Defence Professor of Military Medicine and Surgery at the University of Queensland.

"This process can take many weeks; however, in a rapidly spreading pandemic, speed is a competing priority."

Reade and colleagues hypothesised that "these considerations may have altered the nature of medical publication".

They characterised various aspects of COVID-19-related articles published in the five leading general medical journals with the highest impact factors -- *New England Journal of Medicine*, *The Lancet*, *JAMA*, *The BMJ* and *Annals of Internal Medicine* -- between 1 January and 31 May (inclusive) in 2019 and 2020.

"In the first 5 months of the COVID-19 pandemic, the five leading medical journals published a substantial number of articles that differed in many respects from their usual material," the authors found.

"The journals examined were the clinically focused general medical journals with the top five Web of Science 2019 impact factors, ranging from 21.3 to 74.6, representing the medical literature with the greatest international influence on health policy and clinical practice.

"As reasonably expected, there was a seven-fold reduction in the proportion of articles reporting randomised controlled trials, and a compensatory increase in small case series, opinions and editorials.

"In circumstances which usually require consent, just under half of the COVID-19 studies did not explicitly state consent was obtained, despite clear recommendations by the International Committee of Medical Journal Editors. The proportion of articles that referenced appropriate ethics committee or institutional review oversight was statistically unchanged; however, it is still a concern that 11 (16.7%) observational COVID-19 studies lacked any statement to this effect. In addition, several other articles stated that they had been exempted from the requirement for ethical review due to the nature of the pandemic.

"There was a near three-fold increase in the proportion of studies that published corrections, perhaps reflecting the observed reduction in time from submission to publication observed in the one journal for which these data were available.

"It is likely this figure is an underestimation, given that corrections and retractions would be expected to continue over time. Three COVID-19 studies were retracted. The publication of one of these articles had important implications, resulting in the temporary cessation of the World Health Organization's trial of hydroxychloroquine."

Reade and colleagues concluded that there was a significant change in the characteristics of articles published by leading medical journals, with some evidence of a tendency towards publishing articles prematurely and those with lower internal validity.

“While these unique circumstances no doubt warranted such a change, rapid dissemination of information should not need to come at the expense of quality, ethical standards or oversight.

“Others have suggested several solutions to this challenge, including a two-track review process for pandemic and non-pandemic research, rapid preliminary assessment of research methodology by skilled in-house reviewers before deciding whether to send for peer review, sharing of peer-reviews between reviewers and journals, and mentored peer reviewing by research trainees.

“As part of pandemic preparedness, planning to facilitate augmentation of resources available to medical publishers, allowing maintenance of standards of review, should occur,” they concluded.

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