

## VIEWPOINT

# Maintaining the integrity of the scientific record: corrections and best practices at *The Lancet* group

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## Abstract

A transparent corrections process is essential to assist in the maintenance of public confidence in scientific and medical research. In the era of preprints, fast-paced peer review, and early-access publication, errors and oversights from both authors and editors might be more common. The swift and open correction of the public record requires the participation of authors, journal editors, and publishers, and in this Viewpoint we share *The Lancet* group's best practices around errors and corrections.

**Keywords:** correction, error, ethics, publication

## Introduction

With preprints, fast-paced peer review, and early-access publication, the era of COVID-19 poses a risk that errors and oversights from both authors and editors might be more common. The integrity of scientific publication is – and should be – monitored more closely than ever. It is this monitoring combined with the speed of publishing that results in the swift identification of errors by readers and authors post publication, offering publishers the opportunity to correct the public record openly and quickly. The transparency of this process is essential to assist in the maintenance of public confidence in scientific and medical research.

In an ideal world, all errors would be corrected; unfortunately, the work involved (for example, coordinating, proofing, and production processes) in issuing a correction is time-intensive and labour-intensive, involving many parties. We at *The Lancet* group follow the Committee on Publication Ethics core practices for editors, of which the tenth practice is post-publication discussions and corrections, requiring journals to have “mechanisms for correcting, revising, or retracting articles after publication”.<sup>1</sup> *The Lancet* group has a well-developed process for dealing with errors and corrections, which is under regular review. In the time of swift corrections, the need to share best practice in all areas of publishing is paramount, and we take this opportunity to share our best practices around errors in and corrections to published research.

Errors in the publication record take many forms, and the terms used when correcting these errors affect indexing in bibliographical databases. An erratum is typically defined as a publisher-introduced error, and a corrigendum as a change requested by the author at any time post publication. The National Library of Medicine defines errata as both, “errors that originate in the publication process and those that result from errors of scientific logic or methodology”, and includes corrections, corrigenda, and partial retractions in this definition.<sup>2</sup> At *The*

*Lancet* group we prefer the term correction, which covers all changes to a published article.

## Corrections at *The Lancet*

*The Lancet*'s first erratum – in 1824 – was mundane but important, adding the word *small* to a description, and the practice has continued ever since.<sup>3</sup> In 2010, the process was revised, and we began correcting the article itself in addition to publishing a notification of error. This revision coincided with increasing author awareness of corrections and online-first publishing, which in turn increased the number of requests for corrections (potentially due to authors' misperception that such corrections were simple to change online, and could thus be changed quickly by the editor) and a corresponding increase in workload. *The Lancet* group's current internal corrections policy was introduced in 2011, when the rising numbers of corrections led us to review the types of errors occurring and set out criteria for what we would and would not correct.<sup>4</sup>

## Workflow at *The Lancet* group

Potential corrections pass through several teams before reaching publication. When first identified, corrections are most often directed to the Assistant Editor who worked with the author throughout the post-acceptance stage of the article's journey (copy editing and technical editing). The Assistant Editor first checks the request against our internal policy.<sup>5</sup> Although exceptions are sometimes necessary, correction decisions typically adhere to our policy guidelines. Once the Assistant Editor has made an initial assessment of the correction request, the journal Editor and all handling Editors involved in the peer review and processing of the article are consulted, and a consensus on the decision to issue a correction is reached. The inclusion of all parties involved also ensures an opportunity for learning and awareness of potential errors. Issued corrections are reviewed regularly, and correspondence with authors or practices are changed accordingly to try to minimise the most frequent errors.

Errors that do not affect understanding (for example, typographical); errors in the contributors, acknowledgements, or references sections; and some errors in the author byline and affiliations are not corrected. If the mistake affected the primary findings of a paper or would lead to a change in the overall message of the paper, more in-depth discussions between the Editor and the author, or even consultation with the original peer reviewers, would be required before a correction would be agreed on. More extensive corrections, such as those that affect the underlying data analysis, might require retraction and replacement.<sup>6,7</sup>

Once a correction has been approved, the Assistant Editor drafts a correction statement. This statement details the error and is published alongside the corrected record. In addition to an internal corrections policy, *The Lancet* group has developed an in-house corrections style guide to help us phrase the most common types of errors and include the most salient points. All correction statements must include a citation to the piece being corrected, a clear and concise description of what has been corrected, the date of publication of the correction, and the format (online only, in print and online simultaneously, or online and subsequently in print). To avoid confusion, our style is to avoid repeating the initial mistake in the correction text, instead stating what the phrasing or data should have been. We do not usually include explanations of why the mistake occurred (for example, a data processing error), because we do not wish to apportion blame (Figure 1).

Wakley T, Darwin C, Pascal B, et al. *Influenza vaccine paper*. *Lancet* 2020; **800**:1035–45—In this Article, the spelling of author Thomas Wakley’s name was incorrect. Additionally, in figure 1, the number of participants enrolled should have read “560 enrolled”, and in the first paragraph of the Discussion, the third sentence should have read “Patients with a PCR-confirmed infection were only eligible for inclusion if this test had been done within 24 h of randomisation”. These corrections have been made to the online version as of Oct 31, 2020, and the printed version is correct.

Figure 1: *Lancet* group example correction statement

Once the correction statement has been drafted, the Assistant Editor coordinates with the Production team to create the corrected article files. The Assistant Editor then liaises with the author for approval of the updated article and the correction statement. The authors are responsible for ensuring that these pieces are also checked with and approved by their co-authors to prevent a further mistake. In every instance, the article must go through the production chain from beginning to end again, much like the original piece would have done. The raw article files are formatted, in-house checks are done, and the files are prepared for circulation online. Once the new files have been created, our Web team then resupplies the article, its supplementary materials, and the correction text to all hosting websites, including TheLancet.com, Science Direct, and PubMed, so that the correction goes live simultaneously, replacing all previous online versions.

For publications that go online ahead of in print, corrections are often scheduled to coincide with subsequent publication in an issue. However, if the article was published to coincide with a conference, or addresses time-sensitive research (for example, new trial data on COVID-19 vaccines), we try to correct it as soon as possible. The corrected version would then be carried forward to be published in an issue of the journal, with a statement on the proof indicating when the corrected version of the article had first appeared online. For a piece that has already been published in an issue (a print issue with concurrent online publication or an online-only issue), the workflow is inherently more difficult

because the article is now linked with an entire issue. To make a correction to any linked pieces, we must resupply the entire issue to all the hosting websites, which leads to extra work for our Web and Production teams. Hence, no matter the type of publication, all corrections require substantial work by our teams behind the scenes and a high level of scrutiny to maintain a practical workflow (Figure 2).

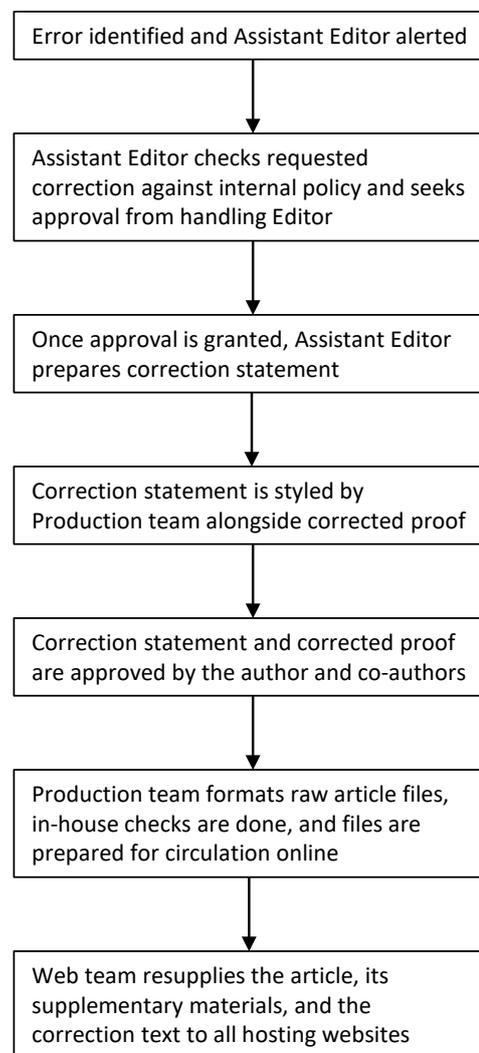


Figure 2: Key actions in the correction process in *The Lancet* group

### Conclusion

The general public have become more aware and involved in the publication of primary research in light of the high-impact articles about COVID-19 pathology and vaccine development. Therefore, it is more important than ever that we maintain scientific integrity and transparency in our publication processes and endeavour to set the record straight, when needed, honestly and unambiguously.

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## Contributions

Both authors contributed equally to the drafting, writing, and review of this Viewpoint.

## References

- 1 Committee on Publication Ethics. Core practices. <https://publicationethics.org/core-practices> (accessed Jan 7, 2021).
- 2 National Library of Medicine. Errata, retractions, and other linked citations in PubMed. <https://www.nlm.nih.gov/bsd/policy/errata.html> (accessed Jan 7, 2021).
- 3 The Lancet. Erratum. *Lancet* 1824; 2: 32.
- 4 Mullan Z, Benham L, Cumber H, Dehnel T, Clark S. To err is human. *Lancet* 2011; 378: 861.
- 5 Lancet. Correction policy. <https://els-jbs-prod-cdn.jbs.elsevierhealth.com/pb/assets/raw/Lancet/authors/correction-policy.pdf> (accessed Nov 27, 2020).
- 6 Cagney H, Horton R, James A, et al. Retraction and republication—a new tool for correcting the scientific record? *Eur Sci Ed* 2016; 42: 3–8.
- 7 Marasović T, Utrobičić A, Marušić A. Transparency of retracting and replacing articles. *Lancet* 2018; 391: 1244–45. <https://pubmed.ncbi.nlm.nih.gov/29619946> (accessed Jan 7, 2021).