

## APPENDIX C RETRACTIONS

For the clearest explanation of articles that are withdrawn or replaced, check [Retraction Watch](#). It has a database of retracted articles and a specific list of Covid-19 articles. It also provides their definitions for [Article types](#) and [Reasons](#) for retractions (Abritis).

It is difficult to get an exact count of articles that have been withdrawn or have been tagged as problematical. Scopus and WOS use different terminology and their terminology is based on how they are tagged by the journal publisher.

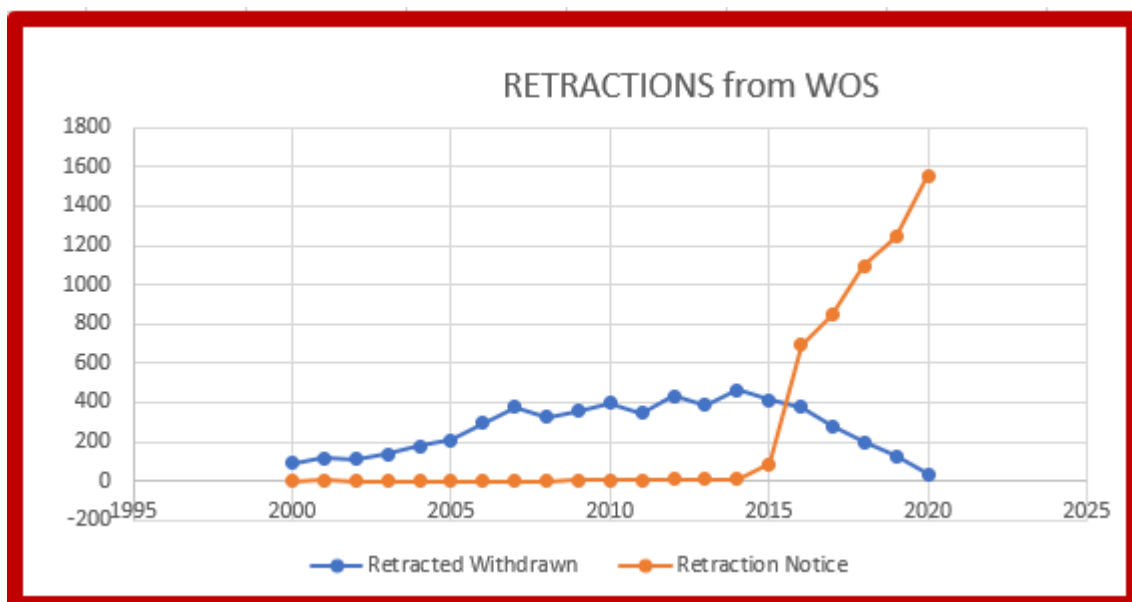
The number of articles that end up being retracted is a small fraction of all publications. Retractions, whether they are errors reported by the authors or deliberate misrepresentations, predate COVID-19. They may not have much impact on journal quality metrics, but they do have an impact on scholarship if they continue to be cited after they have been tagged as retracted (Bar-Ilan and Halevi).

With online access, some publishers withdraw their retracted articles or place a retracted stamp on each page. Others may link back to the original article. Web of Science uses the following [document](#) types:

- **Retracted Publication:** An article that has been withdrawn by an author, institution, editor, or a publisher because of errors or unsubstantiated data.
- **Retraction:** A public notice that an article should be withdrawn because of errors or unsubstantiated data.

The number of articles tagged as Retraction Notice has gone up while the number of articles withdrawn from the dataset has gone down.

**Figure C.1: Retractions and Retracted as designated by WOS for over 20 years**



Scopus uses the term retracted for those which are withdrawn. Those with retraction notices are included in Document Type ERRATUM.


There are two examples of Covid-19 articles published in leading medical journals, which used the same dataset. The best known is the hydroxychloroquine affair, highlighted in the *Proceedings of the National Academy of Sciences of the United States of America* (Dolgin).

#### EXAMPLE 1:

## THE LANCET

### RETRACTED: Hydroxychloroquine or chloroquine with or without a macrolide for treatment of COVID-19: a multinational registry analysis

Prof Mandeep R Mehra, MD   · Sapan S Desai, MD · Prof Frank Ruschitzka, MD · Amit N Patel, MD

Published: May 22, 2020 · DOI: [https://doi.org/10.1016/S0140-6736\(20\)31180-6](https://doi.org/10.1016/S0140-6736(20)31180-6)  Check for updates

#### Methods

We did a multinational registry analysis of the use of hydroxychloroquine or chloroquine with or without a macrolide for treatment of COVID-19. The registry comprised data from 671 hospitals in six continents. We included patients hospitalised between Dec 20, 2019, and April 14, 2020, with a positive laboratory finding for SARS-CoV-2. Patients who received one of the treatments of interest within 48 h of diagnosis were included in one of four treatment groups (chloroquine alone, chloroquine with a macrolide, hydroxychloroquine alone, or hydroxychloroquine with a macrolide), and patients who received none of these treatments formed the control group. Patients for whom one of the treatments of interest was initiated more than 48 h after diagnosis or while they were on mechanical ventilation, as well as patients who received remdesivir, were excluded. The main outcomes of interest were in-hospital mortality and the occurrence of de-novo ventricular arrhythmias (non-sustained or sustained ventricular tachycardia or ventricular fibrillation).

[https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(20\)31180-6/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)31180-6/fulltext)

The following is the sequence in The Lancet, leading up to *The Lancet* making changes in its requirements from authors, using Scopus which includes citation counts:

#### ARTICLES

Cited in Scopus: [276](#)

RETRACTED: Hydroxychloroquine or chloroquine with or without a macrolide for treatment of COVID-19: a multinational registry analysis

*The Lancet*, Published: May 22, 2020

Mandeep R Mehra, Sapan S Desai, Frank Ruschitzka, Amit N Patel

#### COMMENT

Cited in Scopus: [23](#)

Expression of concern: Hydroxychloroquine or chloroquine with or without a macrolide for treatment of COVID-19: a multinational registry analysis

*The Lancet*, Vol. 395, No. 10240, e102, Published: June 3, 2020

The Lancet Editors

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#### COMMENT

Cited in Scopus: [18](#)

RETRACTED: Chloroquine or hydroxychloroquine for COVID-19: why might they be hazardous?

*The Lancet*, Published: May 22, 2020

COMMENT

Cited in Scopus: [142](#)

Retraction—[Hydroxychloroquine](#) or chloroquine with or without a macrolide for treatment of COVID-19: a multinational registry analysis

*The Lancet*, Vol. 395, No. 10240, p1820, Published: June 5, 2020

Mandeep R Mehra, Frank Ruschitzka, Amit N Patel

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Only the sequence of retraction notices are available on *The Lancet*.

From *The Lancet* website, accessed 18 January 2021<sup>10</sup> at

<https://www.thelancet.com/action/doSearch?text1=hydroxychloroquine+and+&field1=Title&journalCode=lancet&SeriesKey=lancet>

**Dimensions** pulls its records from Crossref, using whatever is included in the record (Dimensions). It enhances the record using Altmetrics:

Publication - Article

**RETRACTED: Hydroxychloroquine or chloroquine with or without a macrolide for treatment of COVID-19: a multinational registry analysis**





*The Lancet* - May 2020

## Publication metrics

[About](#)





### Dimensions Badge



	475	Total citations
	475	Recent citations
<hr/>		
	n/a	Field Citation Ratio
	n/a	Relative Citation Ratio

### Altmetric



	News (685)
	Blogs (98)
	Policy documents (2)
	Twitter (27282)
	Facebook (66)
	Wikipedia (6)
	Reddit (29)
	F1000 (1)
	QnA (1)
	Video (13)
	Mendeley (1493)

## EXAMPLE 2:

The second article, using the same dataset, was published in the *New England Journal of Medicine*. It is tagged as a hot and highly cited paper in Web of Science. It continues to be cited. The citations are both negative and positive.

<p>1. <b>Retraction: Cardiovascular Disease, Drug Therapy, and Mortality in Covid-19.</b> N Engl J Med. DOI: 10.1056/NEJMoa2007621.</p> <p>By: Mehra, Mandeep R.; Desai, Sapan S.; Kuy, SreyRam; et al.</p> <p><b>NEW ENGLAND JOURNAL OF MEDICINE</b> Volume: 382 Issue: 26 Pages: 2582-2582 Published: JUN 25 2020</p> <p><a href="#">Find It @ Emory</a> <a href="#">Free Full Text from Publisher</a></p>	<p><b>Times Cited: 46</b> (from Web of Science Core Collection)</p> <p>Usage Count ▾</p>
<p>2. <b>Cardiovascular Disease, Drug Therapy, and Mortality in Covid-19</b></p> <p>By: Mehra, Mandeep R.; Desai, Sapan S.; Kuy, SreyRam; et al.</p> <p><b>NEW ENGLAND JOURNAL OF MEDICINE</b> Volume: 382 Issue: 25 Article Number: e102 Published: JUN 18 2020</p> <p><a href="#">Find It @ Emory</a> <a href="#">Free Full Text from Publisher</a> <a href="#">View Abstract ▾</a></p>	<p><b>Times Cited: 337</b> (from Web of Science Core Collection)</p> <p> <b>Hot Paper</b></p> <p> <b>Highly Cited Paper</b></p>

The article was first published online on May 1, 2020. On June 25, an editor of the journal issued an Expression of Concern (Rubin) and the article was tagged as retracted by the Journal, with support from the authors. Clicking on “Free Full Text from Publisher” links to the original article:

This article has been retracted.

ORIGINAL ARTICLE

## Cardiovascular Disease, Drug Therapy, and Mortality in Covid-19

Mandeep R. Mehra, M.D., Sapan S. Desai, M.D., Ph.D., SreyRam Kuy, M.D., M.H.S., Timothy D. Henry, M.D., and Amit N. Patel, M.D.

<a href="#">Article</a>	<a href="#">Figures/Media</a>	<a href="#">Metrics</a>	
<p>22 References    293 Citing Articles</p>			<p>June 18, 2020 N Engl J Med 2020; 382:e102 DOI: 10.1056/NEJMoa2007621</p>

The banner at the top is the only indication that the article has been retracted.

These examples appear to be cases of rush to publish (Dolgin). The lead author has over 70 articles in WOS for 2020 and these are prestigious journals. The lead author is from a most prestigious hospital.

Resources:

Abritis, A. (25 Jan 2021). Email from Retraction Watch

Bar-Ilan, J. and Haley, G. (March 2017). Post retraction citation in context: a case study. *Scientometrics*, 113, 547-565, accessed at <https://link.springer.com/article/10.1007/s11192-017-2242-0>

Dimensions Support Team (19 Jan 2021) email explanation of how Dimensions tags documents and a lesson in Crossref

Dolgin, E. (21 Oct 2020). The pandemic is prompting widespread use- and misuse-of-real-world data. *Proceedings of the National Academy of Sciences of the United States of America*, 117(45)27754-27758 accessed at <https://www.pnas.org/content/early/2020/10/20/2020930117/tab-article-info?versioned=true>

Rubin, E.J. (18 June 2020). Expression of Concern: Mehra MR et al. Cardiovascular Disease, Drug Therapy, and Mortality in Covid-19. *N Engl J Med*. DOI: 10.1056/NEJMoa2007621. *New England Journal of Medicine*, 10.1056/NEJMe2020822 accessed at <https://www.nejm.org/doi/full/10.1056/NEJMe2020822>

The Editors of the Lancet Group (17, Sep 2020). Learning from a retraction. *The Lancet*. 396(10257)1056 accessed at [https://doi.org/10.1016/s0140-6736\(20\)31958-9](https://doi.org/10.1016/s0140-6736(20)31958-9)

Wilkinson, L.J. (8 April 2020). Version control, corrections, and retractions. *The Crossref Curriculum*. Accessed at <https://www.crossref.org/education/crossmark/version-control-corrections-and-retractions/>