

Publishing pandemics, retractions and the role of medical librarians

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Publishing pandemics, retractions and the role of medical librarians

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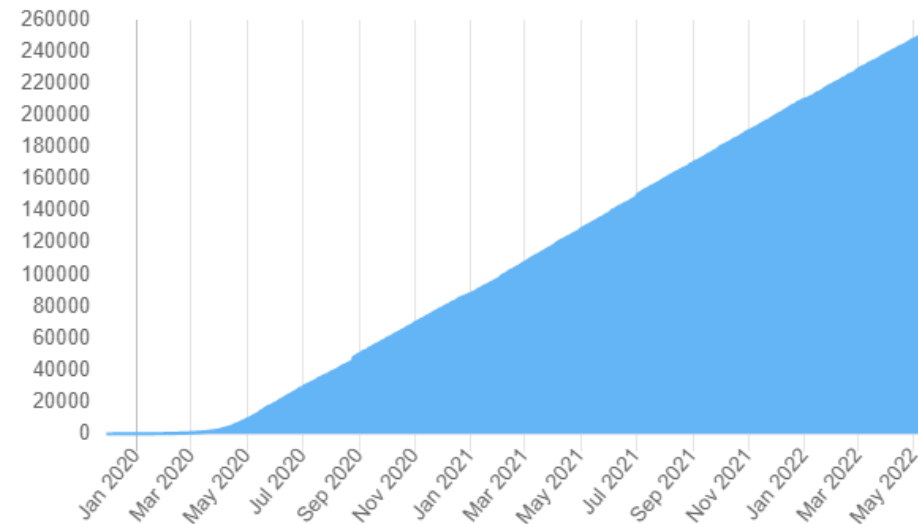
COVID-19 and
publishing pandemic

COVID-19 and publishing pandemic

- Strategies for managing the health crisis triggered by the COVID-19 pandemic differ, but there has never been such a rapid and global collective effort to fight one disease.
- Scientific community applied many research resources with to shed light on the virus characteristics, mechanisms of its transmission, clinical aspects of the disease, prevention and management strategies.
- Public interest in science and „science”
- Infodemic in the media and social networks

Publishing pandemics

- WHO: COVID-19 - Global literature on coronavirus disease
→ over 500.000 papers (May 2022)
- LITCOVID → 250.000 papers (May 2022)
 - Weekly average: 2000-2500 new additions (peak 4405)



Cumulative growth of papers in LitCovid

<https://www.ncbi.nlm.nih.gov/research/coronavirus/faq> (May 2022)

Quantity
o(ve)r
Quality?

- Short time between submission and acceptance
- Accelerated or mitigated review process?
- Lower acceptance criteria?
- Even influential and reputable journals publish COVID articles with
 - poorly designed research
 - questionable reproducibility
 - unrecognized bias
 - many similar studies
 - undeclared financial incentives
 - observational studies based on a small number of patients
 - „early evidence”

The Pandemic of Publications: **Are We Sacrificing Quality for Quantity?**

Surging publications on the COVID-19 pandemic.

Trends of publications during COVID-19 pandemic.

Publication of COVID-19 case reports: **Are we hurrying?**

Orthopedics and COVID-19: **Scientific Publications Rush.**

Concerns About Research Ethics in COVID-19 Publications.

The "**Infodemic**" of Journal Publication Associated with the Novel Coronavirus Disease.

Flattening the curve of new publications on COVID-19.

The **Flood** of COVID-19 Publications: a Word of Caution.

The COVID-19 Pandemic **Changes** the Scientific Publication System.

Waste in covid-19 research

The cardiac complications of COVID-19: many publications, multiple **uncertainties.**

Pandemic publication: **correction and erratum** in COVID-19 publications.

The background features a series of concentric, overlapping circles in shades of light green and grey, some solid and some dashed, creating a ripple effect. In the center, there is a dark green callout box with a pointed bottom edge, containing white text.

COVID-19
retractions

COPE's Retraction guidelines

Key Points:

- **Editors should consider retracting a publication in case of:**
 - clear evidence of unreliable findings (major error / fabrication / falsification)
 - reporting unethical research
 - plagiarism
 - copyright or other legal issues
 - using material or data without authorisation for use
 - previous publication (without attribution or disclosure)
 - author(s) failing to disclose a major competing interest
 -

COPE's Retraction guidelines

Key Points:

- **Notices of retraction should:**
 - be linked to the retracted article wherever possible
 - clearly identify the retracted article
 - be clearly identified as a retraction
 - be published promptly to minimise harmful effects
 - be freely available to all readers
 - state who is retracting the article
 - state the reason(s) for retraction
 - be objective, factual and avoid inflammatory language

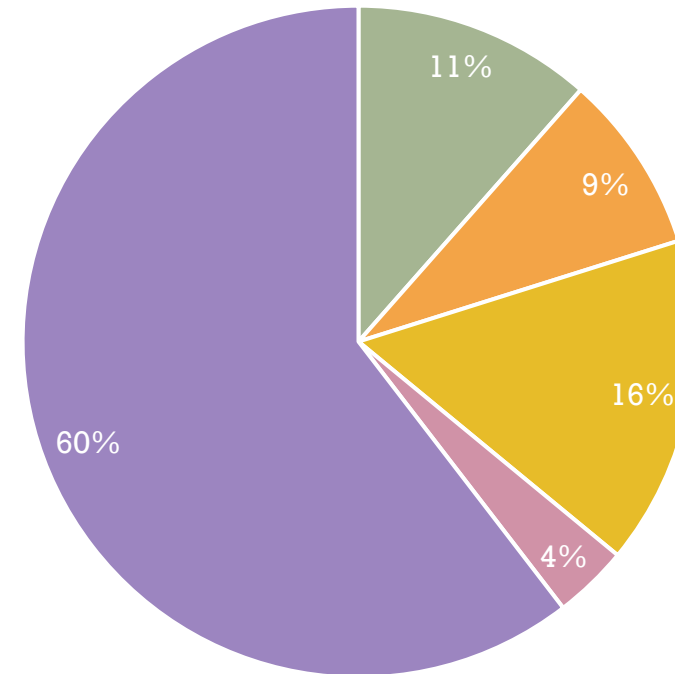
Retraction Watch

Retraction Watch

- Retracted coronavirus (COVID-19) papers - January 2nd 2022:
 - Retracted: 206
 - 164 published papers
 - 42 preprints
 - Expressions of concern: 9

Publication process

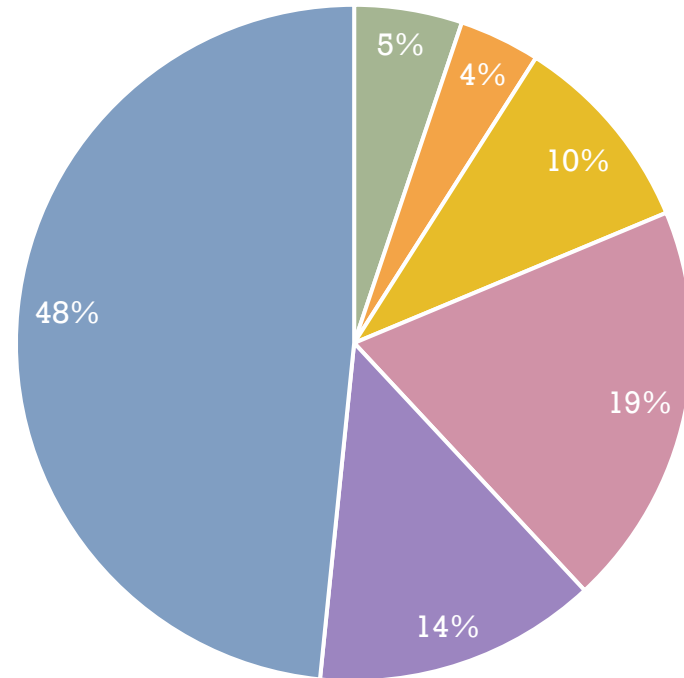
Time from submission till acceptance



- within 2 weeks
- 1 month
- 2 - 4 months
- 5 - 11 months
- unknown

Retraction process

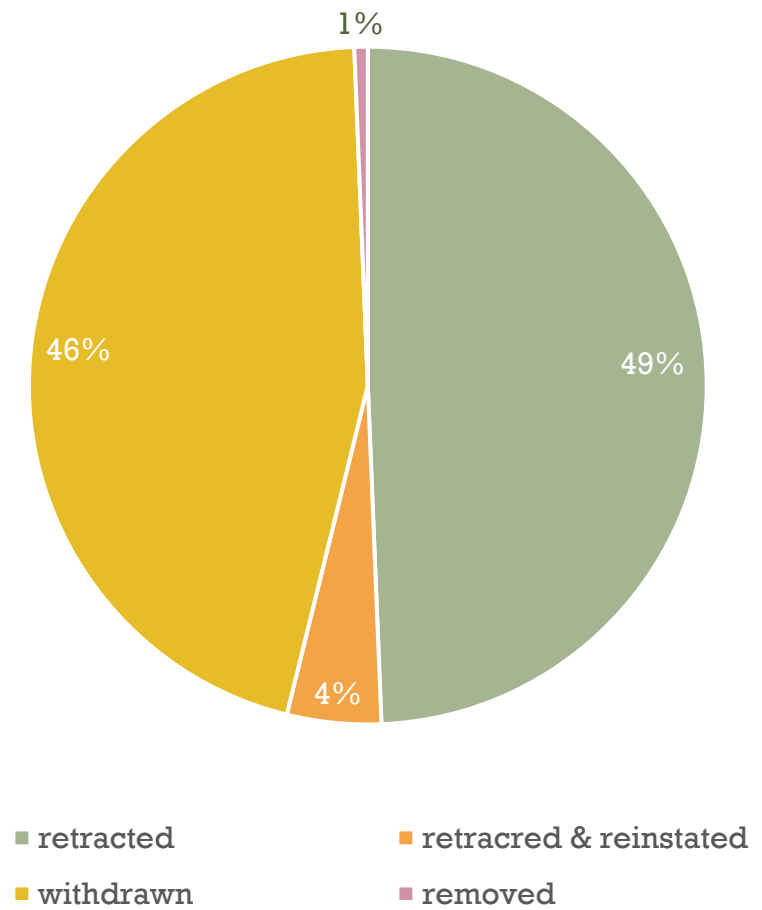
Time between publication and retraction



- within 1 week
- 1 month
- 2 months
- 3 -6 months
- 7 -12 months
- unknown

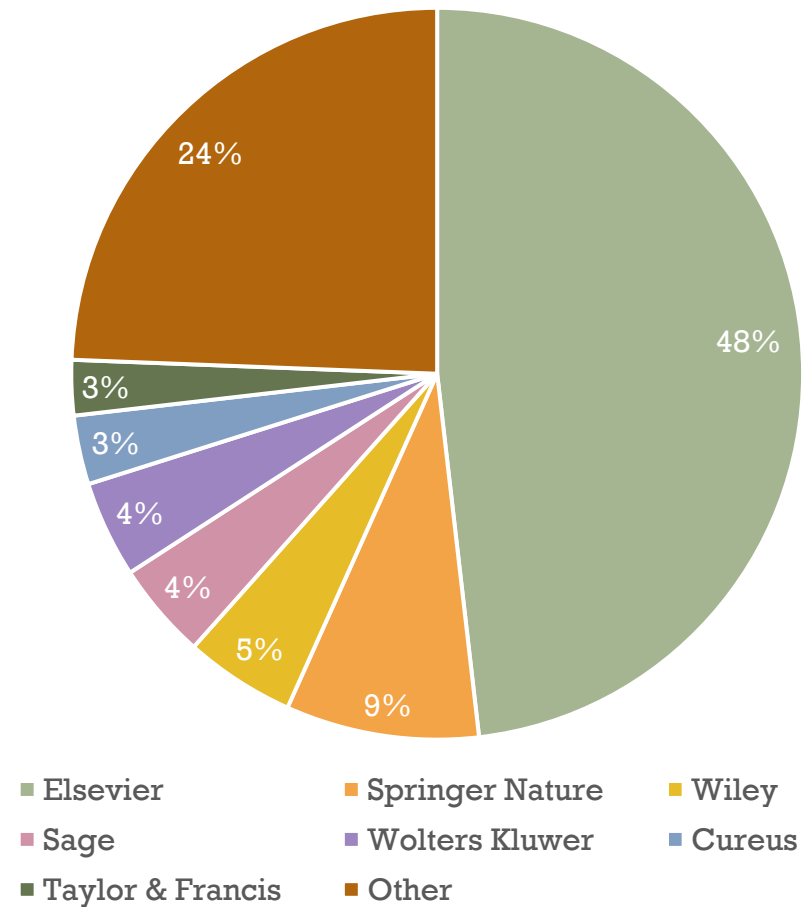
Retraction or
withdrawal?

Retraction "type"



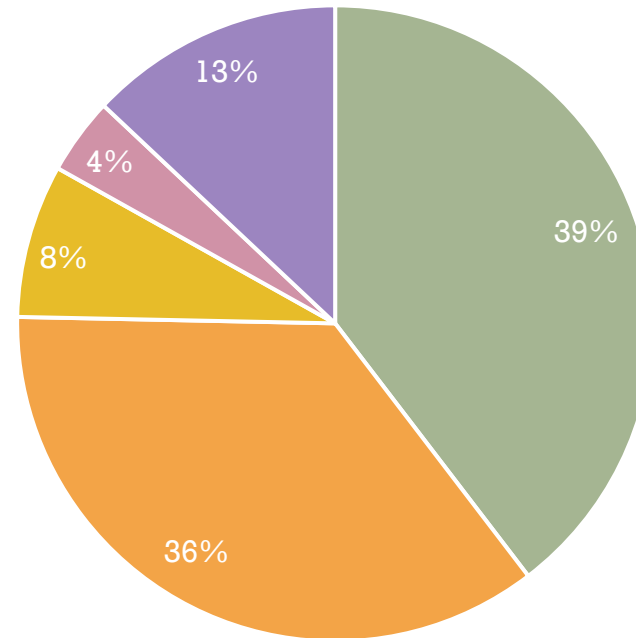
Publishers

Publishers of retracted / withdrawn articles



Visibility of the retraction notice - publisher

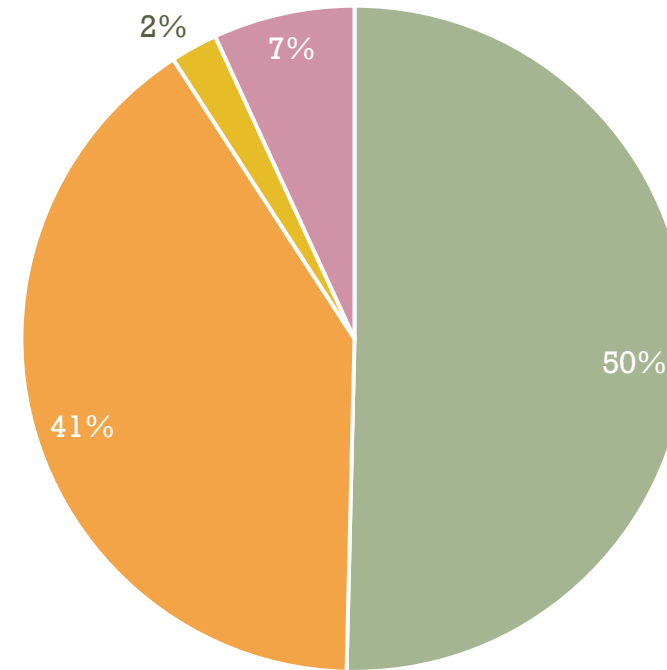
Visibility of the retraction notice on journal website



- YES, in title: WITHDRAWN
- YES, in title: RETRACTED
- YES, accompanying title
- YES, but indistinctive
- NOT VISIBLE

Visibility of the retraction notice - PubMed

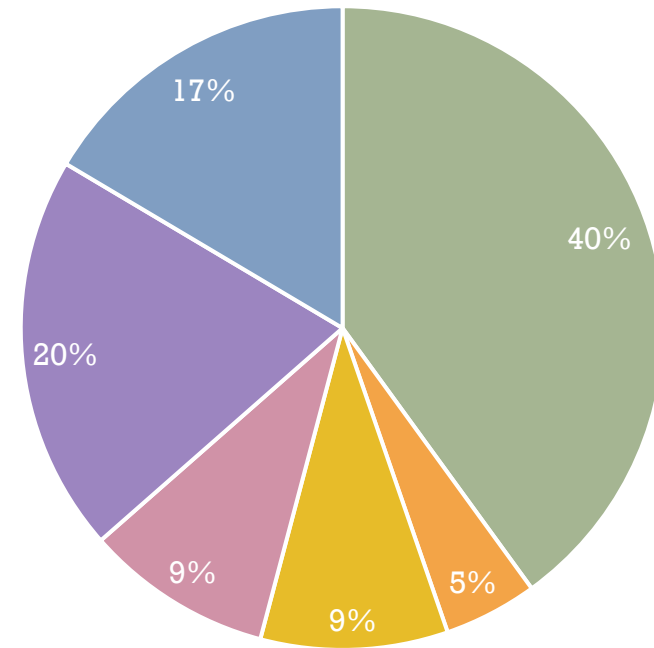
Visibility of retraction in PubMed



- YES (article + red flag + retraction notice)
- YES (article + "withdrawn" in title)
- Indistinctive
- NO (original article available)

Visibility of the retraction notice – WoS CC

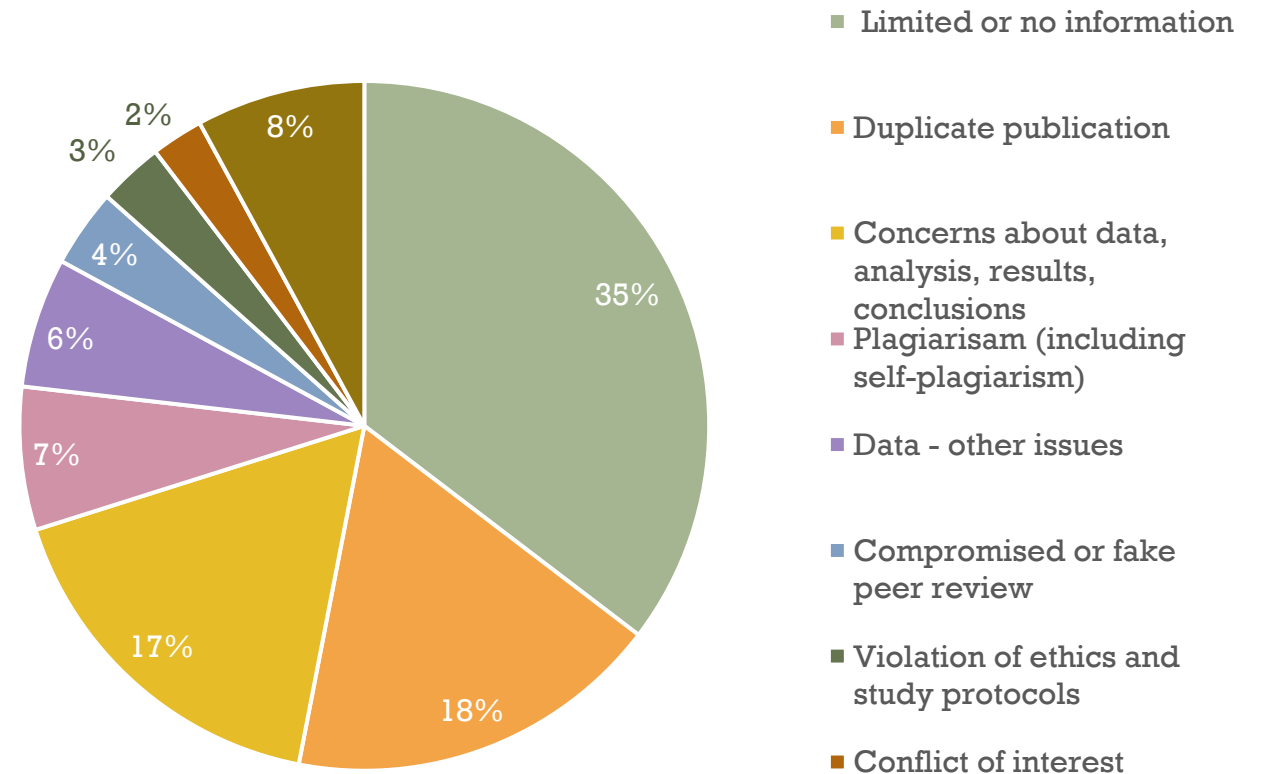
Visibility of retraction in WoS CC



- YES (article + retraction notice)
- YES (article + "retracted" or "withdrawn" in title)
- YES (article + "retracted" in title + retraction notice)
- YES (retraction notice - article unavailable)
- unclear
- NO (original article available)

Reasons for retractions

Reasons for retractions



Citations of retracted papers

Papers	Citations in WoS CC	Status
Mehra MR, Desai SS, Kuy S, Henry TD, Patel AN. Cardiovascular Disease, Drug Therapy, and Mortality in Covid-19. <i>N Engl J Med.</i> 2020 Jun 18;382(25):e102. doi: 10.1056/NEJMoa2007621. Epub 2020 May 1. Retraction in: N Engl J Med. 2020 Jun 4;: PMID: 32356626; PMCID: PMC7206931.	757	Retracted
Mehra MR, Desai SS, Ruschitzka F, Patel AN. RETRACTED: Hydroxychloroquine or chloroquine with or without a macrolide for treatment of COVID-19: a multinational registry analysis. <i>Lancet.</i> 2020 May 22:S0140-6736(20)31180-6. doi: 10.1016/S0140-6736(20)31180-6. Epub ahead of print. Retraction in: Lancet. 2020 Jun 5;:null. Erratum in: Lancet. 2020 May 30;: Erratum in: Lancet. 2020 Jul 18;396(10245):e2-e3. PMID: 32450107; PMCID: PMC7255293.	701	Retracted + Eratum
Cai Q, Yang M, Liu D, Chen J, Shu D, Xia J, Liao X, Gu Y, Cai Q, Yang Y, Shen C, Li X, Peng L, Huang D, Zhang J, Zhang S, Wang F, Liu J, Chen L, Chen S, Wang Z, Zhang Z, Cao R, Zhong W, Liu Y, Liu L. Experimental Treatment with Favipiravir for COVID-19: An Open-Label Control Study. <i>Engineering (Beijing).</i> 2020 Oct;6(10):1192-1198. doi: 10.1016/j.eng.2020.03.007. Epub 2020 Mar 18. PMID: 32346491; PMCID: PMC7185795.	693	Retracted and reinstated
Butt C, Gill J, Chun D, Babu BA. RETRACTED ARTICLE: Deep learning system to screen coronavirus disease 2019 pneumonia. <i>Applied Intelligence.</i> 2020 Apr 22. doi: 10.1007/s10489-020-01714-3. Epub ahead of print. PMCID: PMC7175452.	319	Retracted



What can we do?

Action points – medical librarians

- **Non-transparent retractions and subsequent use of retracted papers undermine trust in science, both among scientists and the public.**
- **Medical libraries play an important role in educating students, physicians and scientists in information literacy and critical thinking skills, and in responsible and ethical use of literature.**
- **Central Medical Library, affiliated with the University of Zagreb School of Medicine (UZSM), accomplishes this by participating in various courses at all levels of study programs, and through informal workshops and face-to-face informal consultations.**
- **Lessons learned from the analysis of retracted papers can be of great use for these activities.**

Action points – scientific community

- Librarians and information science professionals's role in promoting principles of academic integrity - through educating and advocating:
- **SCIENTIFIC COMMUNITY / JOURNAL PUBLISHERS** to:
 - Reach a consensus on semantics (retraction / withdrawal / removal...)
 - Clearly and distinctively flag all retractions
 - Publicly declare the reasons for retractions
- **AUTHORS** to:
 - Use reliable and original sources of information
 - Double-check all references before submitting their manuscript
- **DATABASES:**
 - Use uniform and clear marks for retractions
 - Link or copy the original retraction notice

References

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Questions?

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