

# Respiratory journals and publications

## Introduction



### Key points

- The range of respiratory journals has expanded as the specialty has developed.
- Strong peer review is an essential component of scientific and medical publishing, providing a layer of rigorous quality control and feedback.
- As publishing becomes more complex and the volume of research grows, ethical guidelines have become necessary and organisations such as COPE have been set up to provide assistance to authors and editors.
- The internet has revolutionised scientific publishing, speeding up processes and creating new publishing models.
- Research funders, governments and others have begun to push hard for open access publishing of original research.

Scientific journals are the forum where new research is published and debated, and provide a vital record of scientific and clinical progress. Although publishing is changing rapidly, journals and books remain vital and dynamic elements of the scientific ecosystem.

Respiratory medicine has grown as a specialty over the past few decades and the increasing number of subspecialty research topics has resulted in a large portfolio of respiratory journals to cater for these different areas, in addition to general medical journals. The prime function of most respiratory journals is to publish original research work but they will usually also contain reviews relevant to clinical practice. However, other publications have a predominantly educational emphasis. Some of the major respiratory journals are listed in table 1.

Many respiratory publications are affiliated with national or international societies and may be either owned wholly by the society, such as in the case of the publications of the European Respiratory Society and the American Thoracic Society, or co-owned, such as Thorax which is co-owned by the British Thoracic Society and BMJ Publishing Group Ltd. Various business and strategic decisions underlie the reason for being a self-publishing society or whether to outsource to a commercial publisher. Some journals are not affiliated to any society and are owned by a commercial publisher. Regardless of who owns

“Correspondence on published articles is key to the interaction and engagement of the journal with its readers”

Rank	Publication title	Impact factor
1	American Journal of Respiratory and Critical Care Medicine	11.041
2	Thorax	8.376
3	European Respiratory Journal	6.355
4	CHEST	5.854
5	Journal of Heart and Lung Transplantation	5.112
6	Journal of Thoracic Oncology	4.473
7	American Journal of Respiratory Cell and Molecular Biology	4.148
8	Respiratory Research	3.642
9	Journal of Thoracic and Cardiovascular Surgery	3.526
10	American Journal of Physiology – Lung Cellular and Molecular Physiology	3.523
11	Annals of Thoracic Surgery	3.454
12	Lung Cancer	3.392
13	Current Opinion in Pulmonary Medicine	3.119
14	Tuberculosis	3.033
15	Journal of Aerosol Medicine and Pulmonary Drug Delivery	2.894

**Table 1** – List of the top 15 publications in the Respiratory Systems category and their 2012 Journal Citation Report impact factors.

a specific publication and whatever its focus, editorial freedom must always be preserved.

Over the years, many of the respiratory journals in existence today have developed from smaller-readership publications as their affiliated societies grew, some have resulted from a merger of two or more journals, some have broadened their scope and some have changed their names to reflect the development of respiratory medicine as a specialty. The advent of the web has increased the accessibility and visibility of journals and has also enabled faster publication of research papers. The introduction of online submission systems has greatly facilitated submission of manuscripts to journals and enabled faster and more coordinated peer review, and most journal editors now deal with an increasing number of submissions year on year (figure 1).

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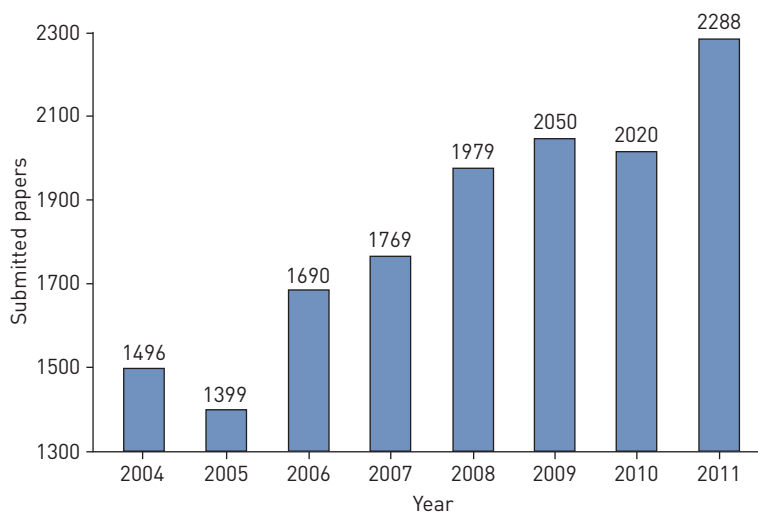


Figure 1 - *European Respiratory Journal* submission trends, 2004–2011.

### General medical journals

Respiratory articles and reviews are also published in general journals, but the competition to publish in general journals such as the *New England Journal of Medicine* and the *Lancet* is generally much greater. These articles mainly tend to be large clinical trials or papers that are of interest to wide groups of healthcare professionals and will often span primary and secondary care. Many of the general journals triage papers and will provide rapid decisions about the suitability of a paper before the peer-review process.

### Types of journal article

Most of the high-impact respiratory journals publish the majority (around 60–80%) of their articles as original reports of research findings. It is usual practice for there to be a collection of editorials in each issue that either comment on an original paper or highlight some other important issue in respiratory practice.

Respiratory journals also publish reviews of topics, either singly or as part of a series. Review articles tend to be commissioned although unsolicited submissions are possible. Most editors will request that any potential topics for review articles are first discussed with the editorial team to avoid overlap and duplication.

One of the most highly regarded types of article is the systematic review. The authors of a systematic review seek to address a research question by conducting a thorough literature search for all published studies addressing that question. Systematic reviews often contain a meta-analysis, which uses statistical techniques to combine and analyse the results of the studies found.

Correspondence on published articles is key to the interaction and engagement of the journal with its readers and should be encouraged. Some journals also accept research letters, which are short reports of pilot research data and observations. Publication of research output as a research letter does however preclude publication of the data in an original paper.

## *Peer review in respiratory journals*

All editors strive to have the highest-quality papers in their journals. It is not possible for journal editors and their editorial teams (which may comprise deputy editors and associate editors) to have the knowledge to deal with all respiratory topics and thus utilising peer reviewers is important. Peer review has been in use in journals for over 300 years and is an important part of the editorial process, as constructive criticism during peer review leads to improvements in the final published paper and ensures that only the best papers are published.

Peer review plays a role in determining whether the research work is original, the stated objectives are achieved and the results plausible. However, the final decision as to whether a paper is suitable for publication and whether it will be of interest to its readers always rests with the editorial team. Authors may challenge peer-review comments or an editorial decision of rejection but review and reversal of any decision should only take place if a genuine mistake has been made in the peer-review process.

As with authors, peer reviewers should also declare any potential competing interests. Increasing work commitments may mean that some reviewers have to decline invitations to review or may never return their review.

The increasing complexity of submissions has led to a need for expert statistical review in some cases and drawing on the experience of a peer reviewer with such experience is incredibly useful.

## *Assessing quality and status of respiratory journals*

Around the world, research assessment exercises are carried out to evaluate the research conducted by higher education institutions and the main measure of the quality is the status of the journal in which researchers publish their work.

Success and status of a journal are therefore important, although they are difficult to quantify. The commonest approach though has been to use the "impact factor".

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*Constructive criticism during peer review leads to improvements in the final published paper and ensures only the best are published*  
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While useful, it is not without its disadvantages and one of its limitations is that it only reflects the past 2 years of citations. The impact factor is calculated from numbers of citations and articles published. Using the example of the 2012 impact factors (released in 2013), these reflect the total number of citations in 2012 to all articles (including reviews, editorials and letters) divided by the number of original papers and reviews published in a given journal in 2010 and 2011. The top-ranked respiratory publications by impact factor are shown in table 1. A 5-year impact factor can also be calculated and may be more representative of the importance and application of a research paper as it may take some time to translate research findings into clinical practice.

Impact factor is also often used by librarians as one of the criteria for determining how their materials budgets (*i.e.* money available for subscriptions) for each faculty should be spent, which has implications for a journal's visibility and finances.

In order for a journal to have a high impact factor, citations need to be high. This has led to editors changing the content of their journal, often publishing fewer articles and not publishing certain categories of paper, such as case reports, that have lower citations. However, it is the editor's responsibility to ensure that their journal has an appropriate balance of respiratory papers and that the journal's target audience is appropriately served.

### ***Publication ethics***

In recent years, medical publishing has become more complex (not least because of the increasing pressure on researchers to publish) and this has led to journal editors dealing with many other issues, apart from simply reviewing scientific content, which take considerable time and effort. The field of publication ethics and best practice has developed and various bodies like the Committee on Publications Ethics (COPE) and the International Committee of Medical Journal Editors (ICMJE) have developed policies and guidance on competing interests, criteria for authorship, data falsification and fabrication, and duplicate or redundant publications.

There has been much progress achieved in clinical trial registration, and journals subscribing to the principles set

out by ICMJE require authors to register their trials prior to their commencement in a publicly available registry that is open and searchable.

## Advances in publishing

Considerable advances have been made in medical publishing with the proliferation of the internet. Manuscript submission and peer-review systems are now entirely electronic and faster, more efficient and transparent. Research papers now have an increasing amount of associated data and/or methodology and this can be published online alongside the paper, ensuring the data are available to the research community without occupying excessive space in print formats. Articles can be also posted online immediately on acceptance ahead of being allocated to an issue, allowing faster dissemination of research findings. Video clips and other materials can also be posted online, especially when there is a need to describe a specific interventional procedure. Podcasts with descriptions and discussions about current issues and their contents can be helpful to draw the reader's attention to key articles.

Publishers are also adopting new publishing models such as continuous publication, which allows full citation details to be available immediately upon online publication, bypassing the need for a publish ahead of print stage.


As smart phones and tablet devices are becoming more widespread, this technology has also been channelled into medical publications. Recently, the ERS launched an ERS publications app for the iPhone and iPad, providing easy access to the full text and images of both the *European Respiratory Journal (ERJ)* and the *European Respiratory Review (ERR)*.

Paper is not dead however: many of the current respiratory journals still publish in print and, to date, only a few have made the move to being online only. A number of factors will affect this decision for publishers and societies, including (to name just a few) advertising income, library preference, costs of printing and postage, reader feedback and society membership benefits.

## Open access

Open access is an umbrella term for publication models that allow anyone to read articles online, regardless of whether they have a subscription to the journal. Momentum and support for open access is growing among authors, readers, funders and governments. As a result of this, publishers and their journals will clearly have to adapt.

In the UK, for example, the Research Councils UK (RCUK) launched a new policy in July 2012 stating that all peer-reviewed published research funded by RCUK from 1 April, 2013 must be open access, either *via* a 'green' (*i.e.* self-archiving) or 'gold' (author-pays) approach, which has been supported by the government.



In July 2012, the European Commission outlined measures to improve access to scientific information produced in Europe. The Commission will make open access to scientific publications a general principle of Horizon 2020, the European Union's Research & Innovation funding programme for 2014–2020.

For several years now, funding bodies such as the US National Institutes of Health, the Wellcome Trust and the Europe PMC Funders Group have mandated that authors to whom they have provided funding will provide a copy of their final peer-reviewed author-supplied manuscripts for public archiving in compliance with requirements (ranging 6–12 months from official publication in the journal in which the author is publishing his article).

## *Publications of the ERS*

The *ERJ* is the flagship journal of the ERS and publishes original research articles, editorials, commissioned and unsolicited reviews, and letters on all aspects of respiratory medicine. In addition to the *ERJ*, the ERS also publishes a number of other publications. This rich publishing portfolio is central to the aims of the ERS, and one of the society's 'pillars', providing a forum for sharing and disseminating knowledge and appealing to the whole respiratory community including younger readers. The *ERR* is a quarterly publication that is free to access and consists of state-of-the-art reviews, editorials and correspondence, in addition to summaries of the most important recent research findings. The *European Respiratory Monograph* is the book series of the ERS, and each monograph is focused on a specific topic in respiratory medicine with up-to-date reviews by clinicians on topics relevant to clinical practice. *Breathe* is a magazine-style educational journal publishing clinical review articles, editorials, case studies and specific educational tools. The ERS also publishes a successful range of Handbooks and *ad hoc* publications, such as the *European Lung White Book*.

## *Conclusions*

The success of any respiratory journal will ultimately depend on the influence that it has on its readership. It is the responsibility of editors and their editorial teams to ensure that they are fulfilling the needs of their target audience, so that respiratory journals as a whole will continue to equally serve both the global research community and practising respiratory clinicians.

## Further reading



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