How to Choose the Right Journal

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Authors of a scientific manuscript wish their paper to be published in a journal and then read, used and cited by their peers. However, there can be many stumbling blocks in this process. One such impediment is submitting the manuscript to an inappropriate journal. At one extreme, it may result in a journal editor summarily rejecting the manuscript without even commissioning an external peer review; this results in the need to resubmit the manuscript to another journal and a consequent delay in publication. At the other extreme, the paper may be published in a journal that is rarely accessed or read by those interested in the work. Either way, the authors’ efforts to disseminate their knowledge have been frustrated.

Selecting a journal that publishes papers in one’s field of study is a priority—a good choice increases the likelihood of your manuscript being published and read by the right people. The selection process needs some experience and entails both hard work and seeking guidance from your peers. This chapter discusses some of the main points that authors should consider when choosing a journal for submitting their work.

16.1 When to Choose a Journal

A tentative decision about the choice of a journal should be made as soon as one starts writing the paper. Different journals follow somewhat different styles for the writing and formatting of manuscripts. Hence, knowing the style and format of the journal you wish to publish your work in can save time and effort spent later in adapting your generic manuscript to its style.
Some scientists start thinking about a target journal for their proposed study even when writing the research protocol. If the protocol and plan of research work are prepared according to the requirements of a particular journal, one is already a step ahead when it comes to the final writing of the paper. However, one must remember that such meticulous planning does not ensure that an article will be accepted for publication in the preferred journal; it is important to have a shortlist of three or four journals when you start writing.

### 16.2 Factors Influencing the Choice of a Journal

Several factors influence the choice of a journal for a particular manuscript (Box 16.1). Each of these is individually discussed below, though some are interrelated.

**Box 16.1 Factors Affecting Choice of Journal for Publication of a Biomedical Manuscript**

- Novelty of the research topic or findings
- Scope of the journal: general medical versus narrow and specialized
- Geographical focus of the journal: international versus regional
- Quality and prestige of the journal:
  - Inclusion in literature databases
    - MEDLINE/PubMed
    - Other databases, e.g. Embase, Science Citation Index (Web of Science), etc.
  - Impact factor and related measures
  - Perception of researchers in the field
  - Duration of publication
  - Editor and editorial team
  - Peer review process
- Authors’ objectives for manuscript publication
- Journal’s readership and availability
- Journal’s policies:
  - Journals subject coverage and types of papers published
  - Manuscript length, number of tables, figures and authors, etc.
  - Journal’s turnaround time
  - Publication charges (including page or colour charges)

### 16.2.1 Novelty of the Research Topic or Finding

A key determinant in the choice of a journal is the authors’ own assessment of the importance of their work. Most research falls into two categories: (1) incremental research (i.e. research that builds on existing knowledge) or (2) replication of work that has been done previously. Manuscripts dealing with incremental research are considered more important, since these advance science, i.e. they improve our
understanding of a disease or its treatment. Hence, a manuscript that adds to existing knowledge is more likely to be considered favourably by a high-impact journal.

Replication of findings is an important concept in biomedical sciences. But journal editors are not always interested in manuscripts based on work carried out in previous studies. A replication study on a topic of recent or current global interest might be accepted in a top- or medium-level journal as their readers are interested in looking for articles that deal with similar problems from all over the world. However, once many articles on a particular topic have been published, new ones are considered less favourably, unless they have a new message. These may evince greater interest if a very different population group is reported on, and particularly if your results differ from those recorded in, previous papers. Hence, you need to choose a journal, based on how much similar work has already been published, by descending an informal pecking order of journals in the field if there are already many replicative publications.

It is rare for a piece of research to be truly innovative and represent a conceptual advance. Such work can impact both future research and the clinical management of a disease. However, there is always the possibility that the findings or reasoning followed in such original work will turn out to be unfounded and fail to influence science in the long run. Innovative work often challenges existing knowledge and dogmas and may face resistance from peers. An element of chance operates for such papers. If the work is perceived as novel and is appreciated by the peer reviewers and the editorial team, it may be published in a high-impact journal, such as Science or Nature. For instance, the article describing the discovery of hepatitis C virus was published in Science [1]. On the other hand, the paper describing the discovery of Helicobacter pylori (then called Campylobacter pyloridis) was rejected as an original article. The report was published as a letter in The Lancet [2] in 1983; in 2005 the authors received the Nobel Prize for their work!

16.2.2 Scope of the Journal: General Medical Versus Narrow and Specialized

Another important point to be considered early is whether to submit a manuscript to a journal that covers a broad subject area of biomedical research, i.e. publishes articles related to one or more broad specialties (e.g. New England Journal of Medicine, Lancet, BMJ) or science (Science, Nature, Proceedings of the National Academy of Sciences of USA) or to one that focuses on a narrow field (e.g. Esophagus, Fetal and Pediatric Pathology).

Journals with a wider scope usually have a large readership. They have a higher frequency of publication and faster turnaround times, both from submission to acceptance and from acceptance to publication. However, the wider the scope of a journal, the more submissions it receives, and the harder it is to get published in it. It is worth remembering that though general medical journals have a wide readership, they may not be read by many specialists; hence their editors often do not encourage the publication of highly specialized papers. If your manuscript addresses
a specialist topic, a specialist journal is more likely to publish it. Also, these journals are read by specialists; hence, if your paper addresses their interest, they are more likely to read it.

If your research is multidisciplinary, there may be a wider range of journals that you could consider for publication. In such cases, one needs to carefully consider the target reader groups. For instance, a paper that addresses the pathophysiology of a particular disease could be sent to a more clinically oriented journal in an attempt to emphasize the clinical relevance of the work. On the other hand, if the work is unlikely to be understood by clinicians, it may be better to submit it to a basic science journal.

While writing your paper, you would have read papers that report work similar to your own. The journals in which these studies were published might be the most appropriate for your manuscript too. Hence, scanning the list of references in your paper could help you identify journals that would consider publishing your work.

16.2.3 Geographical Focus of the Journal: International Versus Regional

Another important issue is whether your work is relevant internationally or only to a limited geographical area. In the latter instance (e.g. for studies on tropical diseases), publishing in a regional journal may well be the best way for your message to reach the population, scientists and physicians located in that area. In addition, a top international journal might well reject your manuscript, but a lower-ranking regional journal is more likely to accept it.

The reverse is also true. Submitting a manuscript of wide interest to a local or national journal will restrict your message and deprive others of the benefit that they could have from reading your paper.

16.2.4 Quality and Prestige of a Journal

Prestige of an author often depends on the quality and prestige of the journal in which their papers are published. So how does one judge the quality or prestige of a journal? Though difficult to quantify, each field of science has its own, ‘unwritten’ pecking order of journals based on their perceived prestige. Several factors appear to influence this subjective measure of prestige.

Inclusion in literature databases. A crucial factor is whether a journal is indexed and available in a public database. The foremost example for biomedical literature is MEDLINE, run by the National Library of Medicine, USA. There are similar databases for specific subareas of biomedicine (e.g. Embase for pharmacology, drug research and toxicology, CINAHL for nursing and allied health sciences). The Science Citation Index is important because it is the basis for determining a journal’s impact factor (discussed below).

MEDLINE currently includes around 5600 journals—a small fraction of all the biomedical journals published worldwide. Its managers use stringent criteria for selecting journals for inclusion in the database. These include the scope and coverage
of a subject, the quality of content, editorial quality in terms of peer review and selection of articles, production quality, types of journal content, international contribution, etc. Several of these criteria relate to journal quality. Hence, journals included in this database are believed to be more prestigious than those that are not. This database also has a wide reach; its search engine, PubMed (www.ncbi.nlm.nih.gov/Pubmed), is the de facto starting point for all biomedical researchers to search the published literature. It also includes abstracts of articles and links to the various journal sites hosting the complete article. Inclusion in MEDLINE increases the visibility and accessibility of a journal and the articles it publishes. These are reasons enough to encourage a prospective author to publish in a journal that is included in the MEDLINE database.

Science Citation Index is a database that indexes citations between journals. It records the number of times a published journal article has been cited by papers in other journals. In recent years, developments in technology have allowed the database to expand (Science Citation Index Expanded). It is accessed via the Web of Science Core Collection and includes nearly 6500 journals across 150 disciplines of science, medicine and technology, from the year 1900 to the present. In general, this database is more restrictive in its coverage than MEDLINE, and a journal’s inclusion is generally associated with greater prestige.

Impact factor. The impact factor of a journal is a numerical measure based on citation data included in the Science Citation Index. Published annually, it is widely perceived as a measure of journal ‘quality’. It is calculated using two elements: ‘the numerator, which is the number of citations in the current year to any items published in a journal in the previous 2 years, and the denominator, which is the number of substantive articles (source items) published in the same 2 years’ [3].

For instance, the impact factor of a journal for the year 2014 is the average number of citations received by papers published in 2012 and 2013 during the year 2014 divided by the number of ‘citable’ papers published in the journal in the years 2012 and 2013 (Box 16.2). The numerator includes all citations to any articles published in the 2-year period, whereas the denominator includes only the articles published in the 2-year period that are considered ‘citable’ as defined by the publisher. Citable articles include research articles, reviews and other longer articles, whereas editorials, commentaries and letters to the editor are excluded. Other types of articles may be less easily categorized.

Box 16.2 Calculation of the Impact Factor of a Journal

Let us assume that:

Number of citable papers published in a journal during the year 2012 = A1
Number of citable papers published in a journal during the year 2013 = A2
Number of citations to the above papers in journals in the Science Citation Index during the year 2014 = B

Then: impact factor of the journal for 2014 = B/(A1 + A2).
(Impact factor is expressed up to three digits after the decimal point)
The impact factor was originally developed to help librarians decide which journals to buy for their libraries [4]. However, over the years, it has been used not only to compare journals, but also to assess research outputs of individuals and institutions. These latter uses are clearly inappropriate; however, even as a measure of journal quality, the impact factor has a number of limitations. First, the impact factors vary widely between scientific disciplines and fields, so direct comparisons are not truly valid; for instance, journals in fast-moving areas such as immunology have much higher impact factors than those in traditional fields such as physiology. Second, review articles often receive a disproportionately large number of citations compared to original research; thus, journals with a large number of review articles tend to have higher impact factors. Furthermore, the number of citations varies greatly for different papers published in a particular journal, with a large proportion of articles receiving no citation; the use of arithmetic mean for such data is fraught with problems. Finally, the impact factors are subject to manipulation [5, 6].

Similar journal indices have been developed which try to correct for some of the limitations of the impact factor, such as the Eigenfactor score, Article Influence Score and SCImago Journal Ranking. However, all indices must be used very carefully when trying to assess a journal’s quality or prestige.

An author selecting a journal for a paper must remember that journals with a higher impact factor or another measure of quality have higher rejection rates, and hence the selection of a target journal depends on a match between the quality of one’s work and the perceived quality of the journal.

Perception of researchers in the field. Scientists who regularly publish papers ‘know’ which journals advance knowledge in their particular area. They consider these journals to be prestigious, even though they might not have a high-impact factor. Thus, a journal’s prestige is often determined more by subjective assessment of its quality than on the more objective measures derived from calculations!

Duration of publication. Several new journals are launched every year; a few of these survive, while others drop out with time. To begin with, most journals are not indexed, and it may take a few years before even a successful publication is listed in electronic databases. This implies that new journals are viewed with caution, and their prestige tends to be lower than that of journals with a long track record of publication.

Editor and editorial team. The respect that the editor and members of the editorial advisory board have in a particular field is an important criterion by which to judge a journal. An editorial board whose members are international, experienced and reputed enhances a journal’s prestige.

Peer-review process. Peer review refers to a process whereby the findings of scientific research are reviewed for their quality by other researchers in the same or related fields. These peer reviewers are often external reviewers who advise journal editors on whether a manuscript should be published or not (see Chap. 21 on ‘Editorial process and peer-review’). The peer-review process is the mechanism that ensures the quality of the published record. Despite its several limitations, it helps
weed out manuscripts that report poor science and improves the quality of reporting in those articles that are finally published.

Peer-reviewed journals are generally considered to be of a higher quality. This distinction has become even more marked with the advent of several online-only journals, which publish manuscripts without a peer review or just a perfunctory review. Some journals exist primarily for the purpose of making money from author fees without providing author services; such ‘predatory journals and publishers’ should be avoided. It is important to find out if a journal to which you are planning to submit your paper has a credible peer-review process—something which can be verified by asking one’s colleagues whether they or someone they know has ever been invited to review a paper for the journal [7, 8].

16.2.5 Authors’ Objectives for Manuscript Publication

Another factor is your publishing objective and whether a particular journal would help you achieve this goal. Your primary aim should be to reach the readership your research is most likely to benefit or interest.

If you are an academic or basic science researcher, you will be interested in not only having your article read but also in having it cited. You will hope that your paper will be published in a journal that is likely to be cited by others (e.g. Gastroenterology or Gut for work related to gastroenterology); this would help in advancing your academic career. The reviewers of your next grant application, who possibly read these journals, will then be more likely to be familiar with your previous work.

On the other hand, if your work is primarily related to patient care, e.g. guidelines or algorithm for the management of a disease, then the aim is to get practitioners to read it, and citation is far less important. Your target journal should be one read by a larger number of practitioners in your field and not a top academic publication, from which your paper is likely to be returned with a barrage of discouraging comments.

If your main goal is to reach as many readers as possible, an open access journal may prove to be the best option. Open access allows anyone to read your article, online and free of charge, and this increases the likelihood of your paper being cited. However, you may have to pay for publication (see below).

An article with immediate application—say, for reasons related to public health—would be suitable for a journal with an early online option or fast-track publication. In recent years, most of the papers about disease outbreaks, (e.g. SARS, H1N1 influenza and Ebola) were published in such journals.

If your institution prefers articles to be published (and promoted) in an ‘indexed’ journal (usually taken as meaning ‘indexed in MEDLINE’), you can consider only those journals that are so indexed. Similarly, if the agency that funded your research insists that the research must be publicly available, you are obliged to submit your paper to an open access journal. Such funding agencies would often pay the journal’s publication charges.
16.2.6 Readership of a Journal

The number and nature of potential readers of a journal are important considerations as you want your work to reach as many people as possible.

Journals vary widely in their circulation. A journal with a larger circulation may be expected to reach more people and have a larger readership. Similarly a journal that many libraries subscribe to will also carry the message to a larger audience. In today’s electronic era, when most readers access journal articles online, the idea of circulation has been replaced by that of online accessibility—particularly the ability to be read without the need to pay at the time of access. Thus, a journal offered to libraries as part of a publisher package may be preferable to a journal with a limited online presence.

The nature of a journal’s readership is even more important than the number of readers as authors are often interested in reaching one or more niche group(s). Journals published by national or international organizations of such experts are a good avenue for such papers as members normally receive a hard copy of the journal as well as online access. Even individuals without access can often find a colleague who does have access. In developing countries such as India, several associations publish journals from their own resources and make them free online to everyone.

16.2.7 Policies of a Journal

Once you have identified a few potential journals for your paper, the next stage is to find out more about their policies, as these may directly affect the suitability of your paper for a particular journal. Policies about manuscript handling are published at least in the first issue of each volume and on the journal’s website.

The information one should look for includes (1) the editorial aims of a journal: the subject coverage, research focus and whether the readership of the journal is mainly academicians, researchers and/or practitioners, (2) types of papers published, (3) limits on length of manuscripts and the number of figures and/or tables, (4) turnaround time, (5) any charges payable by authors, etc. Occasionally, there may be other issues—for instance, a journal may require their authors to have registered a clinical trial before starting their study or have made their protocol publicly available—if you did not do this, you cannot submit your manuscript to that particular journal.

Journals subject coverage and types of papers published. All journals provide guidance about their subject coverage and focus. They also provide detailed information on the types of manuscript they publish; for instance, some journals do not publish review articles, while others will only publish them if they have been solicited. Potential authors should write to the editorial office of such a journal and confirm whether or not the journal is interested in the subject matter of their review (and the particular authors writing on it!). A journal may not publish certain types of articles—for example, case reports, non-human studies, etc. Make sure in advance
that the journal you have identified publishes the type of manuscript you have written.

**Manuscript length, number of tables, figures and authors.** Many journals have a restriction on the overall length of the manuscripts they will consider. If your paper is based on a large study and it exceeds the word limit, this is not the journal for your work.

Similarly, a journal may limit the number of figures and tables for certain types of paper (e.g. case reports). If your paper requires several figures, e.g. a description of novel pathological changes in a disease that needs a series of photomicrographs, it would be best to send the paper to a journal that will accept the number of figures you wish to publish. The same reasoning applies if you are preparing a case report of a multisystem disease; several specialties may have played an important role, but the journal limits the number of contributors it is willing to list as authors.

**Journal’s turnaround time.** This can be difficult to predict but can vary from a few days to a few months. The publication time can be gauged from the dates of receipt, acceptance and final publication, which are printed on the first or last page of every article. Many journals also publish a performance report every few years, and this indicates the number and types of articles a journal receives, the acceptance rate and turnaround time.

If you wish your manuscript to be published quickly, you should send it to a journal with a quick turnaround—the advantage being that if the article is rejected, the response arrives within a couple of weeks, and you can then submit the article to another journal. Journals with the highest publication frequency (weekly or biweekly) usually have shorter waiting periods than quarterly journals. Many journals today have an online component; check whether the journal will post articles online as soon as they are approved for publication, even if the printed version is not available for a while. This helps to disseminate the message in your article much earlier than the final printed version. The advantages of rapid publication in a lower-ranked journal outweigh the potential credit of being published by a higher-ranked journal.

**Publication charges.** Biomedical journals do not pay the authors of research articles and often require authors to pay for publication. Some journals charge the authors only if their manuscript includes colour pictures or exceeds a certain length (e.g. if the number of pages in the printed paper exceeds a certain predefined number). However, the advent of ‘open access journals’ has seen many journals charge for all the original papers they publish (see Chap. 19 on ‘Open access journals’). The authors have to pay these charges after the manuscript has been accepted for publication. In exchange, the articles are freely available to readers. Some journals allow authors to retain a degree of copyright to their work (see Chap. 10 on ‘Copyright issues’). There are journals that even charge authors in advance for reviewing the manuscript irrespective of whether the paper is finally accepted for publication.

The submission or publication fees for a paper can vary widely and may exceed US$ 2000 per article. Journals assume that these charges will be paid out of institutional funds or research grants. However, if the agency that funded your research
does not cover such charges or if the work was not funded, you need to think very hard about following the ‘author pays model’ (and pay from your personal funds!). However, negotiation is an option that might result in a complete or partial waiver of publication charges, particularly if the work was done in a limited-resource setting or if the funding agency does not cover such charges. Hence, it is useful to look up the websites of potential journals for various possibilities before making a choice.

It is important to remember that journals levying a charge for publishing a manuscript are not necessarily of a high quality.

### 16.3 Summary

When searching for a suitable journal for your manuscript, begin by considering a large number of possibilities, and try to arrive at a short list of three to four journals. No one journal will have all the features you are looking for but do not compromise on quality and inclusion in reputed international databases—with the latter being a surrogate marker of the former. Selecting the most appropriate journal may take some time, experience and effort—of visiting the library, discussing with peers and going through the instructions to authors. However, the effort is worthwhile, especially if your paper gets accepted by the first journal you send it to and then reaches your intended readers.

Alternatively, you could discuss with a colleague who is ‘knowledgeable’—having published several papers. You could use websites that help authors choose a journal for publication by providing keywords and abstract. One such website is JANE (Journal/Author Name Estimator: [http://www.biosemantics.org/jane](http://www.biosemantics.org/jane)); at a nominal cost, it provides not only a journal selection feature but also helps to search for similar articles which may help you to build up the References section.

Finally, it is a good idea to identify your second- and third-choice journals in case your paper is rejected from your first-choice journal. Many authors try to initially target their paper to a journal somewhat higher in the pecking order than the one they expect it to be published in. If the ‘higher’ journal accepts the manuscript, they have scored a bonus; if it doesn’t, they can then revise the paper using the comments they receive and send it to their second-choice journal … until it is finally accepted. Aiming too high though can be a problem—repeated rejection may break your resolve to publish and waste time.

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