Things to consider when targeting a journal for publication: for Canadian Radiation Therapists

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Your motivation for publishing

There are two fundamentally different reasons for a radiation therapist to publish a paper:

1. As a practitioner: To contribute to clinical knowledge, share clinical experiences and influence practice.
2. As a researcher: To contribute to academic knowledge and gain academic status.

Radiation therapy specific journals as a group have very low impact factors. Their articles are not cited by researchers very often. This is not to say they do not have impact upon the radiation therapy profession, they do. It is just not demonstrated in citations.

If your publication goal is to share clinical experiences with your peers and influence practice, a radiation therapist specific journal such as the Journal of Medical Imaging Radiation Sciences will be most appropriate.

If you are pursuing citations for academic promotion or to boost your personal H-index, you should target journals with higher impact factors. These are usually journals with a broader audience than just radiation therapy (radiation oncology, clinical oncology, medical physics, radiology, palliative care) such as the International Journal of Radiation Oncology Biology Physics.

Your target audience

Who do you want to reach with your publication?

- Radiation therapists? Dosimetrists? Brachytherapists? Other medical professionals?
- Canadians? Americans? Europeans? International?

You need to evaluate the scope and aim of the journal to determine if the article will reach your intended audience. If your target audience is focused to radiation therapy, then an RT focused journal in your jurisdiction is probably a good choice even though it may have a potentially small readership. For Canadian MRTs, the Journal of Medical Imaging Radiation Sciences may be the most effective at reaching your peers.

Indexing status

A journal indexed in a citation database will be easier for your peers to find when performing literature searches. The easier your work is to find, the more it will be read and the more potential it has to make an impact (clinically or academically). Journals indexed by major citation databases are generally considered to be of higher quality.

MEDLINE is the premier citation database for biomedical literature. PubMed provides free access to MEDLINE. EMBASE and ScienceDirect are other useful biomedical databases. CINAHL is a database for nursing and allied health.

Publication ethics

Another indicator of journal quality is its commitment to ethical publishing. Hot button topics in this area include plagiarism, hyper-production, phony co-authorship and research misconduct.

Membership in organizations such as the Committee on Publication Ethics (COPE), the International Committee of Medical Journal Editors (ICMJE) or the World Association of Medical Editors (WAME) is a good indicator of a journals commitment to ethical publishing.

Journals without a public commitment to publication ethics may not be reputable and should be approached with caution.

Publication standards

Business practices within a journal also need to be evaluated. Questions to consider include:

- How often does the journal publish? It may take a lot longer to get to print in a journal that publishes twice a year verses one that publishes quarterly or monthly.
- Is the journal website current, professional and maintained?
- Does the journal have an ISSN and assign DOIs to articles? These will make it easier to locate your article.
- Do they have a long term preservation plan for their articles? After all, we all want to live forever in our publications.
- What is the journals acceptance rate? The acceptance rate provides a measure of the competitiveness and quality of a journal. Highly competitive journals may have acceptance rates less than 10%. More specialized journals (as is the case in RT) tend to have higher acceptance rates than more general journals.

Open access

> *"Open Access is the free, immediate, online availability of research articles, coupled with the rights to use these articles fully in the digital environment." (SPARC, 2013)*

The term Open Access is actually used to convey two meanings (Swan, 2012):

1. Scholarly content is free of charge for all users with an internet connection.
2. Permission barriers are removed for all scholarly uses (ie: allows copying, using, distribution, derivative works, etc.)

Therefore, there are two types of Open Access:

1. **Gold Open Access** describes the availability of the published work to the general public. An article that has Gold Open Access status is freely available to anybody online - no library or personal subscriptions

required. Most print journals offer some sort of Gold Open Access at an additional cost to the author (at least in medical fields). The cost varies widely between journals and, in the RT domain, can range from $0 to $3000.

2. **Green Open Access** describes the ability for an author to self-archive (on their website , a university repository, Research Gate etc.) or share his/her published work. An article that has Green Open Access can be freely used by the author regardless of the journal it is published in. Most print journals in RT allow Green Open Access to the final (pre-published) draft but not the actual published article. Sometimes Green Open Access for the published manuscript can be purchased at an additional cost.

Many people incorrectly associate the term Open Access with journals that publish strictly online. Being online does not make a journal Open Access, and many print journals offer Open Access services.

Another thing to be aware of are predatory Open Access journals. These are basically corrupt journals that "…exist only to make money off the author processing charges that are billed to authors upon acceptance of their scientific manuscripts". (Beall, 2014) Scholarly Open Access publishes a great list of predatory and questionable Open Access journals. Another excellent Open Access resource is the Scholarly Publishing and Academic Resources Coalition (SPARC).

Even when publishing in reputable journals, make sure you understand your rights and restrictions as an author by reading the author permission and copyright statements closely.

Cost to you

There can be several open and hidden costs to publish your article:

- Peer-review fees
- Processing fees
- Page fees
- Color image fees
- Special media format fees
- Open Access fees (green and gold)

Some of these fees can be substantial. Read the information for authors or email the journal editor for cost information before you start the submission process.

Journal ranking

Citation metrics is the most prevalent method of assessing a journal. It is based on the assumption (correct or not) that an article is making an impact when it is cited by another academic. The common term for this is Journal Impact Factor. There are three major metrics tools loosely based upon citations:

1. SCImago Journal and Country Rank,
2. Web of Science Impact Factor, and
3. Google Scholar Metrics.

All of these tools are based on the number of articles published and the number of times cited. But they rely on different sources of articles, look through different date ranges and apply different weightings. Therefore, even though they are all based on the same idea, there are wide fluctuations when comparing scores from one ranking to another. Results from the three tools cannot be used interchangeably.

Journal ranking results vary widely across disciplines because each discipline has its own publication and citation behavior. Generally, citation metrics favor general interest journals over specific ones and journals that publish review articles over clinical research.

All RT journals score very low in citation metrics – if they have a score at all. Do not fret. This is more of a reflection of the failings of citation metrics (low citation behavior, specific interest journals, clinical research) than it is on the effectiveness of our journals to disseminate research to our discipline. It makes one wonder, though, if there is a value of citation metrics to our field. (Currie, 2014)

Peer review status

Peer review is a fundamental part of scientific inquiry, and any academic journal of substance will be peer reviewed.

> *"Peer review refers to the work done during the screening of submitted manuscripts and funding applications. This process encourages authors to meet the accepted standards of their discipline and reduces the dissemination of irrelevant findings, unwarranted claims, unacceptable interpretations, and personal views. Publications that have not undergone peer review are likely to be regarded with suspicion by academic scholars and professionals." (Wikipedia, 2015)*

Peer-review can follow a single-blind or double-blind process. In a single-blind process the author is not given information about their reviewer, but the reviewer is given author information. In a double-blind peer-review neither participant in the review (author or reviewer) knows the identity of the other. The single-blind process is more open to bias of the reviewer and, therefore, less desirable than the double-blind process.

Time to publication

The average time between submission of your article and publication can vary dramatically from journal to journal. This information can usually be found on the journal website or with an email to the editor. However, there are no guarantees that your article will be handled within the given time period.

Open Access journals typically have quicker time to publication than traditional print journals. Print journals with Open Access services will usually get online early view versions up before printing.