

Journal Selection Primer for Neuroradiology Researchers

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Junior Neuroradiology investigators face a rapidly expanding universe of potential journals for manuscript submission. Each journal possesses many unique features, including scope/breadth of research focus, willingness to accept specific types of articles (for example, Review Articles, or Case Reports), status of indexing on major academic indices, scholarly relevance (usually defined as Impact Factor) and access type (Open Access, subscription, or Hybrid Access). An uninformed choice of target journal can burden not only Editors and Reviewers but also increase the effort and frustration level of relatively inexperienced investigators and ultimately result in a worthy manuscript not getting published. In order to assist Junior Neuroradiology investigators in optimizing journal selection for manuscript submission, we provide a Primer that includes background information on all the journal features listed previously. We also provide detailed tabular data for all Radiology, Neuroradiology, and associated *Neuroscience Clinical Journals* that follow proper academic standards as a quick and useful reference guide for optimal journal selection.

Key Words: Research; Index factor; Open access; Predatory journal; Hybrid journal; Scholarly activity; Neuroradiology; Resident education; Fellow education.

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Abbreviations: **ASPNR** American Society of Pediatric Neuroradiology, **AJNR** American Journal of Neuroradiology, **AJR** American Journal of Roentgenology, **COPE** Committee on Publication Ethics, **DOAJ** Directory of Open Access Journals, **ESCI** Emerging Sciences of Citation Index, **EUR** Euro, **GBP** British pound, **HNR** Head and Neck Radiology, **IF** impact factor, **INR** Interventional Neuroradiology, **MRI** magnetic resonance imaging, **OA** open access, **OASPA** Open Access Scholarly Publishing Association, **Q** quartile ranking, **RSNA** Radiological Society of North America, **SCI-E** Science Citation Index - Expanded, **USD** United States Dollar, **WoS** Web of Science

INTRODUCTION

The goal of every neuroradiology researcher is to find the most appropriate journal to communicate and disseminate their research findings. Researchers generally build their knowledge of target journals over time from lessons learned from prior experience. Therefore, finding a target journal is usually a daunting task for inexperienced researchers, especially given the emergence of interdisciplinary research topics in neuroradiology and limited time dedicated to research in radiology and neuroradiology training curricula (1,2).

Authors should consider many factors in target journal selection. For example, journal's index status and

discoverability using major academic search engines such as PubMed, represent a primary consideration in journal selection. Additionally, junior researchers often gain invaluable experience working on simple projects such as writing case reports. Yet over time fewer and fewer journals are willing to accept submission of these limited yet still potentially impactful publications. Choosing an off-target journal can hinder the impact of a research article; and it can also lead to a series of rejections. Therefore, to reach their primary audience in a time-efficient manner, early-career researchers should extend their knowledge of journals that share similar research interests, allow submissions of a specific type, and have requisite online exposure.

In November 2020, we posted an abbreviated "Quick Guide to Neuroradiology Journals" on the *American Society of Pediatric Neuroradiology* (ASPNR) Website (<https://aspnr.org/>) (3). This posting is currently the most frequently visited news item on the website with 3827 views to date. To aid aspiring neuroradiology researchers, we have now expanded and updated this topic substantially, summarized the key points of target journal selection, and aimed to provide a time-saving resource, including the lists of journals welcoming neuroradiology articles.

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JOURNALS WITH NEUROIMAGING INTEREST

In order to create a time-saving resource, we summarized and listed journals welcoming neuroradiology articles based on our personal experience. Major considerations include status of indexing, Impact Factor, access type (“Open Access,” subscription, or a hybrid of these types), and adherence to proper academic standards for publishing. In brief, Impact Factor is the most widely utilized “shorthand” for journal relevance and is calculated as a simple ratio of the number of citations of the journal’s articles to the number of articles published over a specific period (usually two or five years), with a higher Impact Factor generally considered more favorable (4). Open Access journals allow complete articles to be viewed without a subscription fee, which may enhance the impact and availability of a given paper and provide access to publications in underserved regions of the world; these journals usually charge a publication fee to the authors. “Hybrid Access” journals are rapidly increasing in number, many of which are well-established journals, and allow subscription-based access for some papers and open access status for others—either by charging author fees or through government-mandated archiving of federally-funded research. The Open Access and Hybrid models have increased substantially in recent years amongst reputable journals, and it is important to recognize that requiring a publication fee is not synonymous with “predatory” behavior.

“Predatory Journals” also collect publication fees. However, in contrast to reputable journals, predatory journals prioritize self-interests instead of best publication practices and lack a credible review process. Therefore, high acceptance rates regardless of manuscript merit may be seen. If a researcher is not familiar with a journal, it is important to confirm the journal’s reputation and category. Predatory journals may be difficult to identify at a glance and are sometimes camouflaged as reputable journals with similar appearing names, web pages, and even color schemes (5,6). These journals may also have editors with academic credentials in an attempt to lend credibility. While predatory journals are not illegal—these journals can and do require a publication fee, which can be exorbitant. Additionally, early investigators should be aware that reputable journals are not always indexed, particularly when recently launched.

Researchers generally use the PubMed database or search engines such as Google Scholar for literature search. An article indexed by PubMed will be found by the search regardless of the indexed journal in which it is published. On the other hand, choosing to publish in a non-indexed journal may prove to be a suboptimal choice for investigators as articles are less likely to be found by readers (although they may be identified on Google Scholar) and publication in such journals may not support academic promotion. An author might occasionally consider publication in a non-indexed journal in select scenarios. Reasons include the desire to support a new aspiring journal, the journal is the only good fit for a niche topic, or (in very select cases) the journal is expected to

become indexed in the near future, keeping in mind that many journals that apply for indexed status are not accepted.

We summarized general radiology journals in Table 1 and listed all neuroradiology journals in Table 2. Clinical and translational neuroscience journals with significant neuroradiology interest were summarized in Table 3. We only included journals abstracted or indexed by Web of Science (WoS; Clarivate Analytics) and PubMed databases. To avoid potentially listing predatory journals, we excluded journals that embrace an open access model but are not affiliated with the Directory of Open Access Journals (DOAJ).

Data regarding publication model, publication frequency, Journal Impact Factor (according to WoS), and journal index (SCI-E; Science Citation Index – Expanded or ESCI; Emerging Sciences of Citation Index) were collected from journals’ websites. We obtained quartile ranking data from the Journal Citation Reports 2021 (Clarivate Analytics).

A USEFUL APPROACH TO NARROW THE TARGET JOURNAL LIST

There are several important factors to consider when choosing a target journal. First, authors should have knowledge of their intended audience. Neuroradiology has become an integral part of clinical and translational neurosciences. As a result, neurology and neurosurgery journals have started welcoming a substantial amount of neuroradiology papers (including a clinician-run dedicated imaging journal: *Journal of Neuroimaging*). Some clinically focused topics are also intrinsically very imaging-heavy, such as reflected in the *Multiple Sclerosis Journal*. Second, authors should question who could make best use of their research findings. For example, understanding and assessing the findings of an MRI perfusion study might require a certain amount of expertise and familiarity with imaging protocols and post-processing techniques. Since such highly specialized research topics may offer limited take-home lessons for clinicians and general radiologists, directing such a manuscript toward a neuroradiology journal might be more appropriate and can improve the article’s impact. Conversely, uncommon conditions that have important neuroradiology findings may be of particular interest to niche clinicians (as readers or authors), and imaging features are often predominantly reported in clinical journals (7).

Prospective authors should also consider that journals will often pull from a reviewer pool from the journal’s specialty. That is, an article submitted to a neurology journal may be more likely to be reviewed partially or entirely by neurologists and an article submitted to a radiology journal by radiologists, although this is not strictly seen.

Once the appropriate audience is identified, authors can create a list of potential target journals by using Tables 1–3 to further narrow the list based on their previous research experience. Next, we urge authors to visit target journals’ websites and determine whether their paper meets the target journals’ aim and scope. Since some journals have a specific research focus, depending solely on the journal’s name might be

TABLE 1. General Radiology Journals.

Journal	Indexed In	Journal Impact Factor, (Quartile Ranking)*	Accepts Case Reports**	Publication Model [†]	Publication Frequency (in a year) [‡]
Radiology	PubMed, WoS (SCI-E)	11.105, (Q1)	Teaching Images	Hybrid OA (3500 USD)	12 issues
Investigative Radiology	PubMed, WoS (SCI-E)	6.016, (Q1)	No	Hybrid OA (4400 USD)	12 issues
Radiographics	PubMed, WoS (SCI-E)	5.533, (Q1)	No	Hybrid OA (3000 USD)	6 issues
Journal of the American College of Radiology	PubMed, WoS (SCI-E)	5.332, (Q1)	No	Hybrid OA (3530 USD)	12 issues
European Radiology	PubMed, WoS (SCI-E)	5.315, (Q1)	No	Hybrid OA (3860 USD)	12 issues
Insights into Imaging	PubMed, WoS (SCI-E)	5.231, (Q1)	No	Gold OA (2795 USD)	4 issues
Diagnostic and Interventional Imaging	PubMed, WoS (SCI-E)	4.026, (Q2)	No	Hybrid OA (2160 EUR)	12 issues
American Journal of Roentgenology	PubMed, WoS (SCI-E)	3.959, (Q2)	Teaching Images	Subscription	12 issues
European Journal of Radiology	PubMed, WoS (SCI-E)	3.528, (Q2)	No	Hybrid OA (3450 USD)	12 issues
Radiologia Medica	PubMed, WoS (SCI-E)	3.469, (Q2)	No	Hybrid OA (3390 USD)	12 issues
Academic Radiology	PubMed, WoS (SCI-E)	3.173, (Q2)	No	Hybrid OA (3320 USD)	12 issues
British Journal of Radiology	PubMed, WoS (SCI-E)	3.039, (Q2)	No	Hybrid OA (2100 GBP)	12 issues
Diagnostic and Interventional Radiology	PubMed, WoS (SCI-E)	2.630, (Q3)	No	Diamond OA	6 issues
Pediatric Radiology	PubMed, WoS (SCI-E)	2.505, (Q3)	Yes	Hybrid OA (3860 USD)	12 issues
Japanese Journal of Radiology	PubMed, WoS (SCI-E)	2.374, (Q3)	No	Hybrid OA (3490 USD)	12 issues
Clinical Radiology	PubMed, WoS (SCI-E)	2.350, (Q3)	No	Hybrid OA (2880 USD)	12 issues
Radiologic Clinics of North America	PubMed, WoS (SCI-E)	2.303, (Q3)	No	Subscription	12 issues
Canadian Association of Radiologists Journal	PubMed, WoS (SCI-E)	2.248, (Q3)	No	Hybrid OA (3750 USD)	4 issues
Skeletal Radiology	PubMed, WoS (SCI-E)	2.199, (Q3)	Yes	Hybrid OA (4190 USD)	12 issues
Acta Radiologica	PubMed, WoS (SCI-E)	1.990, (Q3)	No	Subscription	12 issues
Journal of the Belgian Society of Radiology	PubMed, WoS (SCI-E)	1.894, (Q4)	Yes	Gold OA (300 GBP)	1 issue
Clinical Imaging	PubMed, WoS (SCI-E)	1.605, (Q4)	No	Hybrid OA (2970 USD)	12 issues
British Journal of Radiology Case Reports	PubMed, WoS (ESCI)	-	Yes	Gold OA (460 GBP)	6 issues
Emergency Radiology	PubMed, WoS (ESCI)	-	Yes	Hybrid OA (3390 USD)	6 issues
Acta Radiologica Open	PubMed, WoS (ESCI)	-	Yes	Gold OA (600 GBP)	Online Only
Polish Journal of Radiology	PubMed, WoS (ESCI)	-	Yes	Diamond OA	1 issue
Journal of Radiology Case Reports	PubMed, WoS (ESCI)	-	Yes	Diamond OA	12 issues
European Journal of Radiology Open	PubMed, WoS (ESCI)	-	Yes	Gold OA (1760 USD)	1 issue

(continued)

TABLE 1. (Continued)

Journal	Indexed In	Journal Impact Factor, (Quartile Ranking)*	Accepts Case Reports**	Publication Model [†]	Publication Frequency (in a year) [‡]
Indian Journal of Radiology and Imaging	PubMed, WoS (ESCI)	-	Yes	Diamond OA	4 issues
Case Reports in Radiology	PubMed	-	Yes	Gold OA (700 USD)	Online only
Radiology Case Reports	PubMed	-	Yes	Gold OA (500 USD)	12 issues

WoS, Web of Science (Clarivate Analytics); SCI-E, Science Citation Index Expanded; ESCI, Emerging Sources of Citation Index; OA, Open access.

* WoS database does not provide Journal Impact Factor and quartile rankings for journals indexed in ESCI. However, these journals can still be indexed in reputable scholarly organizations such as PubMed and Scopus.

** Case reports denote detailed description of clinical encounter with patients (usually up to 3 patients and 1000 words). Medical images consist of figures and brief clinical summary (usually up to 250 words). Medical images can be further categorized as clinical images and teaching images.

† Diamond OA, content is publicly accessible, and journal covers the expenses; Gold OA, content is publicly accessible, and authors pay the expenses (authors' copyrights significantly vary across OA journals); Subscription, content is only available for subscribers, and authors may pay submission fee or standard article processing charge; Hybrid OA, authors can choose subscription or Gold OA models (for hybrid OA journals, we only presented Gold OA model charges in this table).

‡ Journals might publish articles online, regardless of publication frequency.

misleading. For example, *NeuroImage* is a brain function-focused translational neuroscience journal. Therefore, it is clearly a better fit for functional MRI studies rather than for interventional neuroradiology (INR) ones. Furthermore, while most journals are topic-oriented, some, like *PLoS ONE*, are dedicated to assessing manuscripts strictly based on scientific merit, regardless of topic or results. Finding a target journal with a matching scope is particularly important because it helps researchers reach their primary audience. Also, it increases the chance of receiving constructive comments during the review process.

Researchers should also read the editorial policies of the potential target journals as policies may impact the likelihood of a manuscript being accepted. For example, some journals only publish educational materials or invited articles. A prime example in radiology is the journal *Radiographics*, which solicits the lion-share of its articles from Radiology Society of North America (RSNA) educational exhibits. Additionally, some journals may apply stringent limitations to word count and to maximum number of figures and tables, which may preclude conveying the salient points of your article. Also, the publication frequency and publication model (subscription or open access) vary greatly across journals. Therefore, authors should assess their publication needs at this stage. Time can be critical in your publishing strategy, especially if your paper is about a rapidly evolving area or a public health concern like the ongoing COVID-19 pandemic. In such cases, it would be beneficial to choose a journal that offers a fast-track publication route, a frequent publication schedule, or a fast review process.

Authors can also benefit from the open-access model. Open access articles are freely available to all, including physicians, researchers, and patients. Thus, it can potentially lead to an increase in visibility, use, and citation of your article (8). However, researchers must distinguish reputable journals from predatory journals in the open-access publication model. Unfortunately, predatory journals have managed to bleed into PubMed and PubMed central databases in recent years. Therefore, we also recommend that authors check their target journals' affiliations with reputable scholarly organizations such as the DOAJ, Open Access Scholarly Publishers Association (OASPA), and the Committee on Publication Ethics (COPE) (6). Some journals (indexed or non-indexed) may also be affiliated with a reputable National Society; for instance, the *American Journal of Neuroradiology* (AJNR) is affiliated with the *American Society of Neuroradiology* (Table 4).

Given the limited number of neuroradiology journals, we urge authors to consider all these factors in preparation of their manuscript. Thus, authors can avoid time-consuming repeated manuscript modifications to successfully disseminate their findings in a time-efficient manner. Finally, targeting the journal with the highest impact factor might be tempting; however, we would like to remind authors that reaching your intended audience is also a critical point, and it can substantially determine the impact of your research.

CASE REPORTS

Although the number of journals accepting case reports has decreased in recent years, some journals have expanded to have sister journals dedicated entirely or in part to case reports

TABLE 2. Neuroradiology Journals.

	Indexed In	Journal Impact Factor, (Quartile Ranking)*	Accepts Case Reports**	Publication Model [†]	Publication Frequency (in a year) [‡]
Neuroradiology Journals					
American Journal of Neuroradiology	PubMed, WoS (SCI-E)	3.825, (Q2)	Yes	Hybrid OA (750 USD)	12 issues
Clinical Neuroradiology	PubMed, WoS (SCI-E)	3.649, (Q2)	No	Hybrid OA (3390 USD)	4 issues
Journal of Neuroradiology	PubMed, WoS (SCI-E)	3.447, (Q2)	No	Hybrid OA (2960 USD)	6 issues
Neuroradiology	PubMed, WoS (SCI-E)	2.804, (Q2)	Yes	Hybrid OA (4190 USD)	12 issues
Journal of Neuroimaging	PubMed, WoS (SCI-E)	2.486, (Q3)	No	Hybrid OA (950 USD)	6 issues
Neuroimaging Clinics of North America	PubMed, WoS (SCI-E)	2.264, (Q4)	No	Subscription	4 issues
The Neuroradiology Journal	PubMed, WoS (ESCI)	-	Yes	Hybrid OA (3500 USD)	6 issues
Interventional Neuroradiology Journals					
Journal of Neurointerventional Surgery	PubMed, WoS (SCI-E)	5.836, (Q1)	Yes	Hybrid OA (5000 USD)	12 issues
Interventional Neuroradiology	PubMed, WoS (SCI-E)	1.610, (Q4)	Yes	Hybrid OA (3750 USD)	6 issues

WoS, Web of Science (Clarivate Analytics); SCI-E, Science Citation Index Expanded; ESCI, Emerging Sources of Citation Index; OA, Open access.

* WoS database does not provide Journal Impact Factor and quartile rankings for journals indexed in ESCI. However, these journals can still be indexed in reputable scholarly organizations such as PubMed and Scopus.

** Case reports denote detailed description of clinical encounter with patients (usually up to 3 patients and 1000 words).

† Subscription, content is only available for subscribers, and authors may pay submission fee or standard article processing charge; Hybrid OA, authors can choose subscription or Gold OA models (for hybrid OA journals, we only presented Gold OA model charges in this table).

‡ Journals might publish articles online, regardless of publication frequency.

(3). Examples include the *British Journal of Radiology Case Reports* (associated with the *British Journal of Radiology*) and *Mayo Clinic Proceedings: Innovations, Quality, and Outcomes* (associated with *Mayo Clinic Proceedings*). Authors should be aware of this development since submission of a case report to the parent journal will often result in an editorial request to the authors to consider reformatting the submission to the sister journal.

The journal category “medical images” or “teaching images” is also becoming more prevalent and is now offered in prestigious journals such as the *New England Journal of Medicine*, and recently, *Stroke*. However, journals are often highly selective in accepting submissions for this category. The radiology researcher should also be aware that other journal categories have had a diminished presence in recent years, e.g., pictorial essays and case series (either not considered or only considered if the topic is exceptional with a minimum number of cases). Finally, manuscript preparation for a case report does not necessarily mean low effort; some journals, such as the *Journal of Radiology Case Reports*, incorporate scrolling images, questions, and ample text to enhance the manuscript, which can require considerably preparation time.

INDIVIDUAL JOURNAL METRICS, INCLUDING TURNAROUND TIME AND ACCEPTANCE RATES

Both authors and editors are aligned in preferring short timelines between submission and publication. Previous surveys have shown that timeliness of publication has been reported as one of the most important factors in deciding on a target journal (9). Another important timeline in academic publishing is the time to first decision. It generally reflects the speed of the review process, and short timelines between submission and first decision allow authors to disseminate their findings in a time-efficient manner. Unfortunately, it is often difficult to identify reliable metrics regarding timelines for a given journal. Some publishers, including Elsevier and Springer, provide time to publication and time to first decision data on journals' webpages. In addition, some radiology journals, including the *American Journal of Roentgenology* (AJR), have published papers with historical metrics of publication, including turnaround times and acceptance rates (10). In general, however, most journals do not provide this type of granular information to authors. Finally, we would like to remind the authors that journals publish articles online first after the proofreading and final acceptance. Articles published

TABLE 3. Neuroscience, Otolaryngology, and Multidisciplinary Journals.

	Indexed In	Journal Impact Factor, (Quartile Ranking)*	Accepts Case Reports**	Publication Model [†]	Publication Frequency (in a year) [‡]
Neuroscience Journals					
Lancet Neurology	PubMed, WoS (SCI-E)	44.182, (Q1)	No	Hybrid OA (5000 USD)	12 issues
JAMA Neurology	PubMed, WoS (SCI-E)	18.302, (Q1)	Yes	Hybrid OA (5000 USD)	12 issues
Brain	PubMed, WoS (SCI-E)	13.501, (Q1)	Yes	Hybrid OA (4645 USD)	12 issues
Annals of Neurology	PubMed, WoS (SCI-E)	10.422, (Q1)	Yes	Hybrid OA (3000 USD)	12 issues
Journal of Neurology Neurosurgery and Psychiatry	PubMed, WoS (SCI-E)	10.283, (Q1)	Yes	Hybrid OA (3600 GBP)	12 issues
Neurology	PubMed, WoS (SCI-E)	9.910, (Q1)	Yes	Hybrid OA (3600 USD)	52 issues
Stroke	PubMed, WoS (SCI-E)	7.914, (Q1)	Yes	Hybrid OA [§] (3625 USD)	12 issues
Translational Stroke Research	PubMed, WoS (SCI-E)	6.829, (Q1)	Yes	Hybrid OA (4790 USD)	6 issues
Neuroimage	PubMed, WoS (SCI-E)	6.556, (Q1)	No	Gold OA (3450 USD)	12 issues
Journal of Cerebral Blood Flow and Metabolism	PubMed, WoS (SCI-E)	6.200, (Q1)	No	Hybrid OA (3000 USD)	12 issues
Journal of Neuroscience	PubMed, WoS (SCI-E)	6.167, (Q1)	No	Hybrid OA [§] (3475 USD)	52 issues
European Journal of Neurology	PubMed, WoS (SCI-E)	6.089, (Q1)	Yes	Hybrid OA (4800 USD)	12 issues
International Journal of Stroke	PubMed, WoS (SCI-E)	5.266, (Q1)	No	Hybrid OA (3000 USD)	9 issues
Journal of Neurosurgery	PubMed, WoS (SCI-E)	5.115, (Q1)	No	Hybrid OA (3000 USD)	12 issues
Joint Bone Spine	PubMed, WoS (SCI-E)	4.929, (Q2 Rheumatology)	Yes	Hybrid OA (2580 EUR)	6 issues
Neuroimage - Clinical	PubMed, WoS (SCI-E)	4.881, (Q2)	No	Gold OA (3,240 USD)	26 issues
Neurosurgery	PubMed, WoS (SCI-E)	4.654, (Q1 surgery; Q2 clinical neurology)	Yes	Hybrid OA (4250 USD)	12 issues
Spine Journal	PubMed, WoS (SCI-E)	4.166, (Q1 orthopedics; Q2 clinical neurology)	No	Hybrid OA [§] (3560 USD)	12 issues
Stroke and Vascular Neurology	PubMed, WoS (SCI-E)	4.081, (Q2)	Yes	Gold OA (3,000 GBP)	6 issues
Neurosurgical focus	PubMed, WoS (SCI-E)	4.047, (Q1 surgery; Q2 clinical neurology)	Yes	Diamond OA	6 issues
Frontiers in Neurology	PubMed, WoS (SCI-E)	4.003, (Q2 clinical neurology; Q3 neurosciences)	Yes	Gold OA (2950 USD)	Online Only
Brain Imaging and Behavior	PubMed, WoS (SCI-E)	3.978, (Q2)	No	Hybrid OA (3390 USD)	6 issues
Journal of Neurosurgery Spine	PubMed, WoS (SCI-E)	3.602, (Q1 surgery; Q2 clinical neurology)	Yes	Hybrid OA (3000 USD)	6 issues
Spine	PubMed, WoS (SCI-E)		Yes		26 issues

(continued)

TABLE 3. (Continued)

	Indexed In	Journal Impact Factor, (Quartile Ranking)*	Accepts Case Reports**	Publication Model†	Publication Frequency (in a year)‡
		3.468, (Q1 orthopedics; Q2 clinical neurology)		Hybrid OA (4400 USD)	
Pediatric Neurology	PubMed, WoS (SCI-E)	3.372, (Q1 pediatrics; Q2 clinical neurology)	Yes	Hybrid OA (2780 USD)	12 issues
Neurological Sciences	PubMed, WoS (SCI-E)	3.307, (Q2 clinical neurology; Q3 neurosciences)	Yes	Hybrid OA (3390 USD)	12 issues
Seizure- European Journal of Epilepsy	PubMed, WoS (SCI-E)	3.184, (Q3)	Yes	Hybrid OA (2500 USD)	12 issues
European Spine Journal	PubMed, WoS (SCI-E)	3.134, (Q2 orthopedics, Q3 clinical neurology)	Yes	Hybrid OA (4190 USD)	12 issues
Epilepsy Research	PubMed, WoS (SCI-E)	3.045, (Q3)	No	Hybrid OA (2850 USD)	12 issues
Neurosurgical Review	PubMed, WoS (SCI-E)	3.042, (Q2 surgery; Q3 clinical neurology)	No	Hybrid OA (4190 USD)	6 issues
Epilepsy & Behavior	PubMed, WoS (SCI-E)	2.937, (Q2 behavioral sciences; Q3 clinical neurology)	No	Hybrid OA (2940 USD)	12 issues
Global Spine Journal	PubMed, WoS (SCI-E)	2.915, (Q2 orthopedics, Q3 clinical neurology)	No	Gold OA (2100 USD)	8 issues
Cerebrovascular Diseases	PubMed, WoS (SCI-E)	2.762, (Q3)	Yes	Hybrid OA‡ (3530 USD)	6 issues
Operative Neurosurgery	PubMed, WoS (SCI-E)	2.703, (Q2 surgery; Q3 clinical neurology)	Yes	Hybrid OA (4250 USD)	12 issues
BMC Neurology	PubMed, WoS (SCI-E)	2.474, (Q3)	Yes	Gold OA (2490 USD)	1 issue
Neurological Research	PubMed, WoS (SCI-E)	2.451, (Q3 clinical neurology; Q4 neurosciences)	No	Hybrid OA (3605 USD)	12 issues
Acta Neurologica Belgica	PubMed, WoS (SCI-E)	2.396, (Q3 clinical neurology; Q4 neurosciences)	Yes	Hybrid OA (3390 USD)	6 issues
Psychiatry research- Neuroimaging	PubMed, WoS (SCI-E)	2.376, (Q3)	Yes	Hybrid OA (2940 USD)	12 issues
Journal of Neurosurgery- Pediatrics	PubMed, WoS (SCI-E)	2.375, (Q2 pediatrics; Q3 clinical neurology)	Yes	Hybrid OA (3000 USD)	6 issues
Journal of Neurosurgical Sciences	PubMed, WoS (SCI-E)	2.279, (Q3)	No	Subscription	6 issues
Acta Neurochirurgica	PubMed, WoS (SCI-E)	2.216, (Q3 surgery; Q4 clinical neurology)	Yes	Hybrid OA (4190 USD)	12 issues
Journal of Stroke and Cerebrovascular Diseases	PubMed, WoS (SCI-E)	2.136, (Q4 neurosciences)	Yes	Hybrid OA (3000 USD)	12 issues
World Neurosurgery	PubMed, WoS (SCI-E)	2.104, (Q3 surgery; Q4 clinical neurology)	No	Hybrid OA (3210 USD)	12 issues
Journal of Child Neurology	PubMed, WoS (SCI-E)	1.987, (Q3 pediatrics; Q4 clinical neurology)	No	Hybrid OA (3750 USD)	12 issues
Journal of Clinical Neuroscience	PubMed, WoS (SCI-E)	1.961, (Q4)	No	Hybrid OA (3420 USD)	12 issues

(continued)

TABLE 3. (Continued)

	Indexed In	Journal Impact Factor, (Quartile Ranking)*	Accepts Case Reports**	Publication Model [†]	Publication Frequency (in a year) [‡]
Neuropediatrics	PubMed, WoS (SCI-E)	1.947, (Q3 pediatrics; Q4 clinical neurology)	Medical images only	Subscription	6 issues
Clinical Neurology and Neurosurgery	PubMed, WoS (SCI-E)	1.876, (Q3 surgery; Q4 clinical neurology)	Yes	Hybrid OA (3310 USD)	12 issues
European Neurology	PubMed, WoS (SCI-E)	1.710, (Q4)	Yes	Hybrid OA [§] (3530 USD)	6 issues
British Journal of Neurosurgery	PubMed, WoS (SCI-E)	1.596, (Q4)	Yes	Hybrid OA (3400 USD)	6 issues
Child's Nervous System	PubMed, WoS (SCI-E)	1.475, (Q4)	Yes	Hybrid OA (4190 USD)	12 issues
Neurologist	PubMed, WoS (SCI-E)	1.398, (Q4)	Yes	Hybrid OA (3010 USD)	6 issues
Pediatric Neurosurgery	PubMed, WoS (SCI-E)	1.162, (Q4)	Yes	Hybrid OA (3300 USD)	6 issues
Neuroanatomy Journals					
Frontiers in Neuroanatomy	PubMed, WoS (SCI-E)	3.856, (Q1 anatomy, Q2 neurosciences)	Yes	Gold OA (2950 USD)	Online only
Clinical Anatomy	PubMed, WoS (SCI-E)	2.414, (Q2)	No	Hybrid OA (4000 USD)	8 issues
Surgical and Radiological Anatomy					
Ear, Nose & Throat Journals	PubMed, WoS (SCI-E)	1.246 (Q4)	Yes	Hybrid OA (3390 USD)	12 issues
Otolaryngology-Head and Neck Surgery	PubMed, WoS (SCI-E)	3.497, (Q1)	Yes	Hybrid OA (4000 USD)	6 issues
Otolaryngologic Clinics of North America	PubMed, WoS (SCI-E)	3.346, (Q1)	No	Subscription	6 issues
Head and Neck-Journal for the Sciences and Specialities of the Head and Neck	PubMed, WoS (SCI-E)	3.147, (Q2)	Yes	Hybrid OA (4400 USD)	12 issues
European Archives of Oto-Rhino-Laryngology	PubMed, WoS (SCI-E)	2.503, (Q2)	No	Hybrid OA (4190 USD)	12 issues
American Journal of Otolaryngology	PubMed, WoS (SCI-E)	1.808, (Q3)	Yes	Hybrid OA (2970 USD)	6 issues
ENT- Ear Nose Throat Journal	PubMed, WoS (SCI-E)	1.697, (Q3)	Yes	Gold OA (2100 USD)	10 issues
Pain Medicine Journals					
Pain	PubMed, WoS (SCI-E)	6.961, (Q1)	Yes	Hybrid OA (4400 USD)	12 issues
European Journal of Pain	PubMed, WoS (SCI-E)	4.97, (Q2)	Yes	Hybrid OA (4000 USD)	10 issues
Pain Medicine	PubMed, WoS (SCI-E)	3.75, (Q2)	Yes	Hybrid OA (4456 USD)	12 issues
Multidisciplinary Journals					
New England Journal of Medicine	PubMed, WoS (SCI-E)	91.253, (Q1)	Yes	Subscription	52 issues
Lancet	PubMed, WoS (SCI-E)	79.323, (Q1)	Teaching images only	Hybrid OA (5000 USD)	52 issues

(continued)

TABLE 3. (Continued)

	Indexed In	Journal Impact Factor, (Quartile Ranking)*	Accepts Case Reports**	Publication Model [†]	Publication Frequency (in a year) [‡]
Mayo Clinic Proceedings	PubMed, WoS (SCI-E)	7.619, (Q1)	Teaching images only [¶]	Hybrid OA (3300 USD)	12 issues
PLoS One	PubMed, WoS (SCI-E)	3.24, (Q2)	No	Gold OA (1749 USD)	Online only
Cureus	PubMed, WoS (ESCI)	-	Yes	Diamond OA with editing and service fees	Online only
Mayo Clinic Proceedings: Innovations, Quality & Outcomes	PubMed	-	Yes	Gold OA (3000 USD)	6 issues

WoS, Web of Science (Clarivate Analytics); SCI-E, Science Citation Index Expanded; ESCI, Emerging Sources of Citation Index; OA, Open access.

* WoS database does not provide Journal Impact Factor and quartile rankings for journals indexed in ESCI. However, these journals can still be indexed in reputable scholarly organizations such as PubMed and Scopus.

** Case reports denote detailed description of clinical encounter with patients (usually up to 3 patients and 1000 words). Medical images consist of figures and brief clinical summary (usually up to 250 words). Medical images can be further categorized as clinical images and teaching images.

† Diamond OA, content is publicly accessible, and journal covers the expenses;

Gold OA, content is publicly accessible, and authors pay the expenses (authors' copyrights significantly vary across OA journals);

Subscription, content is only available for subscribers, and authors may pay submission fee or standard article processing charge;

Hybrid OA, authors can choose subscription or Gold OA models (for hybrid OA journals, we only presented Gold OA model charges in this table).

‡ Journals might publish articles online, regardless of publication frequency.

§ Subscription model of these Hybrid OA journals requires an article processing charge or submission fee.

¶ Case reports are listed in submission guidelines, however, usually authors are referred to the sister journal.

online can be accessed electronically, and there is no need to wait for print publication. Journals generally do not share metrics regarding the timeline between acceptance and online publication. However, it typically ranges between 2 and 4 weeks.

Some journals have implemented “desk rejections,” where an editor will reject a paper without sending it for review. Reasons for desk rejections are myriad and do not necessarily mean the manuscript is without merit (11,12). Indeed, many desk rejections result from poor alignment of the paper with

TABLE 4. Checklist for Target Journal Selection.

Determine your primary audience

Collect a list of potential target journals (researchers can also use our summarized lists)

Consider if your work is best suited for a topic-based journal or a multidisciplinary journal that assess research by scientific merit

Narrow the list

Journal's scope (Has the journal published papers similar to yours?)

Editorial policies (Journals might prefer only to publish invited articles or educational materials)

Consider if the journal publications have any regional preferences

Types of articles considered (Some journals do not publish case reports or pictorial essays)

Journal's affiliation with reputable scholarly organizations (Is the journal reputable?)

Consider your publication needs

Journal's publication model (Open access or subscription)

Journal's visibility* (Is the journal indexed in PubMed database?)

Time to first decision

Time to publication**

Word, table, and figure limits (Does the journal's publishing policies allow authors to efficiently deliver their findings?)

* Please note that your article might be found by search engines such as Google Scholar, even if your target journal is not indexed by PubMed.

** Journals publish articles online before print publication.

the focus of the journal; this process benefits all parties if it is rapid and definitive rejections are used. Some editors may offer to facilitate the transfer of the desk-rejected paper to a sister journal with the understanding that the referral will align the paper better with the target journal.

JOURNAL SELECTION FOR NEURORADIOLOGY SUBSPECIALISTS

Interventional Neuroradiology (INR)

There are only two SCI-E journals dedicated solely to INR, namely the *Journal of Neurointerventional Surgery* and *Interventional Neuroradiology*. Neuroimaging and general radiology journals also publish a significant amount of INR papers (Tables 1–2). However, the overall number of radiology journals is quite limited. Therefore, clinical neurology and neurosurgery journals currently take the lead in publishing INR papers (Table 3).

A few journals' names can be misleading for early-career INR researchers. *The Journal of Vascular and Interventional Radiology* publishes a very limited number of selected INR papers. *The Journal of Endovascular Therapy* is a peripheral vascular intervention journal. These journals can still be targeted for shared research topics such as vascular closure devices, carotid interventions, and technical notes. However, aiming a submission at neuroradiology- or neuroscience-focused journals might be more time-efficient for other research topics.

Head and Neck Radiology (HNR)

Currently, there is no HNR focused journal, and neuroradiology journals take the lead in publishing HNR papers. However, otolaryngology journals have also started publishing a considerable amount of HNR papers in recent years (Table 3). A few otolaryngology journals such as the *American Journal of Otolaryngology and Ear, Nose & Throat Journal* have even started neuroradiologist-run HNR sections.

Spine Radiology

Neuroradiology journals and *Skeletal Radiology* have strong spinal imaging sections and regularly publish spinal imaging papers. For more clinically focused research topics, authors can target neurosurgery and orthopedics journals. Additionally, there are a few journals that solely focus on spine, such as *The Spine Journal*, *Global Spine Journal*, *Spine*, and *Journal of Neurosurgery-Spine* (Table 3); these journals also welcome spine radiology papers, including case reports and teaching images.

Pediatric Neuroradiology

Pediatric neuroradiology significantly differs from adult neuroradiology with its unique research topics such as metabolic disorders, congenital neurologic malformations, pediatric

tumors, and seizure disorders. Unfortunately, there are no pediatric neuroradiology-focused journals. However, general radiology, neuroradiology, and pediatric radiology journals have strong pediatric neuroradiology sections and take the lead in publishing pediatric neuroradiology papers (Tables 1–2). Authors can also target pediatric neurology journals such as *Childs Nervous System* and *Pediatric Neurology* (Table 3).

LIMITATIONS

More than 450 clinical and translational neuroscience journals are indexed in WoS, and these journals' editorial policies and interests will change over time. Additionally, Impact Factor, quartile rankings, journal index status and affiliations are annually updated dynamic parameters. Therefore, we urge authors to visit their target journal's website and pay attention to their target journal's editorial policies and metrics. Finally, we would like to remind authors that our tables only summarize the neuroradiology-friendly journals, and many reputable journals were not included in the tables. Therefore, we also urge authors to pay attention to journals where references and works similar to theirs have been published in.

CONCLUSION

Neuroradiology has become central to clinical and translational neurosciences. Therefore, every neuroscience journal might be a potential candidate for your research, depending on the journal's scope and your research topic. In this primer, we provided a comprehensive list of journals with great neuroimaging interest and outlined the key points of target journal selection. We hope that this primer is a helpful and time-saving resource, and we would like to assure new neuroradiology researchers that they will gain comprehensive knowledge about their potential target journals over time with increasing experience.

REFERENCES

1. Lam CZ, Nguyen HN, Ferguson EC. Radiology resident' satisfaction with their training and education in the united states: effect of program directors, teaching faculty, and other factors on program success. *AJR Am J Roentgenol* 2016; 206(5):907–916.
2. McGuire CW, Herberman HB. Research in radiology residency programs: a survey. *Acad Radiol* 1998; 5(10):698–700.
3. Lehman VT. Quick guide to neuroradiology journals. Accessed from: <https://asprn.org/newsworthy/quick-guide-to-getting-your-report-published/>. 2020. Accessed at: February 22, 2022.
4. Garfield E. The history and meaning of the journal impact factor. *JAMA* 2006; 295(1):90–93.
5. Castillo M. Predators and cranks. *AJNR Am J Neuroradiol* 2013; 34(11):2051–2052.
6. Masic I. Predatory journals and publishers - dilemmas: how to assess it and how to avoid it? *Med Arch* 2021; 75(5):328–334.
7. Lehman VT, Doolittle DA, Hunt CH, et al. Intracranial imaging of uncommon diseases is more frequently reported in clinical publications than in radiology publications. *AJNR Am J Neuroradiol* 2014; 35(1):45–48.
8. Alkhawtani RHM, Kwee TC, Kwee RM. Citation advantage for open access articles in European radiology. *Eur Radiol* 2020; 30(1):482–486.

9. Runde BJ. Time to publish? Turnaround times, acceptance rates, and impact factors of journals in fisheries science. *PLoS One* 2021; 16(9): e0257841.
10. Rosenkrantz AB, Harisinghani M. Metrics for original research articles in the AJR: from first submission to final publication. *AJR Am J Roentgenol* 2015; 204(6):1152–1156.
11. Khosla A, McDonald RJ, Bornmann L, et al. Getting to yes: the fate of neuroradiology manuscripts rejected by radiology over a 2-year period. *Radiology* 2011; 260(1):3–5.
12. McDonald RJ, Cloft HJ, Kallmes DF. Fate of manuscripts previously rejected by the American journal of neuroradiology: a follow-up analysis. *AJNR Am J Neuroradiol* 2009; 30(2):253–256.