

## Archives of Pediatric Neurosurgery from dream to reality: Innovations and editorial solutions

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**Abstract:** Latin America lacks representation in pediatric neurosurgery scientific publication. This paper reposts the experience of creating the journal Archives of Pediatric Neurosurgery (APN) in 2019 as an open-access online journal, describes how it gained recognition as the official publication of the Brazilian Society for Pediatric Neurosurgery. APN published 118 peer-reviewed articles, is indexed in various databases, prioritizes accessibility and innovation, including video content and online-first publishing. APN aims to foster international collaborations, expand indexing, and continue delivering high-quality pediatric neurosurgical knowledge to a global audience.

**Keywords:** scientific journals; pediatric neurosurgery; neuropaediatrics.

### Arquivos de Neurocirurgia Pediátrica do sonho à realidade: Inovações e soluções editoriais

**Resumo:** A América Latina carece de representação em publicações em neurocirurgia pediátrica. Este artigo relata a experiência na criação da revista "Archives of Pediatric Neurosurgery" (APN), em 2019, como uma revista on-line de acesso aberto, descreve seu processo de reconhecimento enquanto publicação oficial da Sociedade Brasileira de Neurocirurgia (SBN), com 118 artigos, e como se deu sua indexação em várias bases de dados, priorizando a acessibilidade e a inovação, incluindo conteúdo em vídeo e publicação *onlinefirst*. APN objetiva fomentar colaborações internacionais, expandir a indexação e continuar a disponibilizar conhecimentos de alta qualidade.

**Palavras-chave:** revista científica; neurocirurgia pediátrica; neuropaedria.

### Archivos de Neurocirugía Pediátrica del sueño a la realidad: Innovaciones y soluciones editoriales

**Resumen:** América Latina carece de representación en publicaciones científicas de neurocirugía pediátrica. Este artículo informa sobre la experiencia de crear la revista Archives of Pediatric Neurosurgery (APN) en 2019 como una revista en línea de acceso abierto, describe cómo obtuvo reconocimiento como la publicación oficial de la Sociedad Brasileña de Neurocirugía Pediátrica. APN publicó 118 artículos revisados por pares, está indexada en diversas bases de datos, prioriza la accesibilidad y la innovación, incluyendo contenido en video y publicación en línea anticipada. APN tiene como objetivo fomentar colaboraciones internacionales, expandir su indexación y seguir ofreciendo conocimiento de neurocirugía pediátrica de alta calidad a una audiencia global.

**Palabras clave:** revistas científicas; neurocirugía pediátrica; neuropaedria.



## 1 Introduction

Pediatric neurosurgery is perhaps the oldest specialty of neurosurgical history. The technique of cranial trepanation has been known since prehistoric times. Pediatric reports can be widely found in the works of both Hippocrates and Galens (Christopoulou, 2022).

Over the centuries, neurosurgery was restricted to non-specific procedures and cranial burrs. Only at the beginning of the 20th century did the specialty gain scientific notoriety with advances in several diseases (Christopoulou, 2022).

After 1940 and following World War II, pediatric surgery develops rapidly. In 1949, Nulsen and Spitz revolutionized the treatment of hydrocephalus by introducing the ventricular drainage valve (Boockvar; Loudon; Sutton, 2001). Since then, the specialty has expanded and gained worldwide recognition, with distinct training requirements and its own certification process.

The official journal of the International Society for Pediatric Neurosurgery (ISPN) was founded in 1972 as Child's Brain and later moved to Child's Nervous System (Wilcox *et al.* 2013). Other important journals in the area emerged in the United States as the Journal of Neurosurgery: Pediatrics and Pediatric Neurosurgery. Publications in the area of pediatric neurosurgery are generally part of sessions in journals focused on neurosurgery or pediatrics.

Despite Latin America's considerable population of neurosurgeons, and their contributions to neurosurgery, there is a lack of information about pediatric neurosurgery from this part of the world, similar to its North American and European counterparts (Pineda *et al.*, 2023).

If we take into account the entire South Hemisphere, there is no journal specialized in pediatric neurosurgery, even considering the countries of Africa and Latin America with particularities and a significant pediatric population (The World Bank Group, [2023]).

According to the Data World Bank there are 2.01 billion children (0-14 years old) in the world (The World Bank Group, [2023]). Latin America has an estimated child population of 153,183.31 and Sub-Saharan Africa in 506,551.36.

An unlikely idea to publish a pediatric neurosurgical journal became a reality in June 2019 when we gathered an enthusiastic group and started testing the platform & workflow by "Open Journal Systems/ Public Knowledge Project" OJS/PKP thus turning an idea into something concrete. The next step would be choosing the name of the journal and creating the website.

## 2 Methodology

We did extensive research in several journals, adopting a completely online format with clear rules for authors. We created a flowchart starting from the receipt of the article, through the peer review process, and finally, to editing and publishing.

The choice of the national and international editorial board based on academic and scientific criteria. Archives of Pediatric Neurosurgery (APN)<sup>1</sup> was born.

We published the very first issue of the APN in September 2019, and subsequently requested the inclusion of the APN in the ISSN (International Standard Serial Number) obtaining the number 2675-3626 (CAPES B4).

The decision was to use of the Internet and related technologies as an enabler and infrastructure for health innovations.

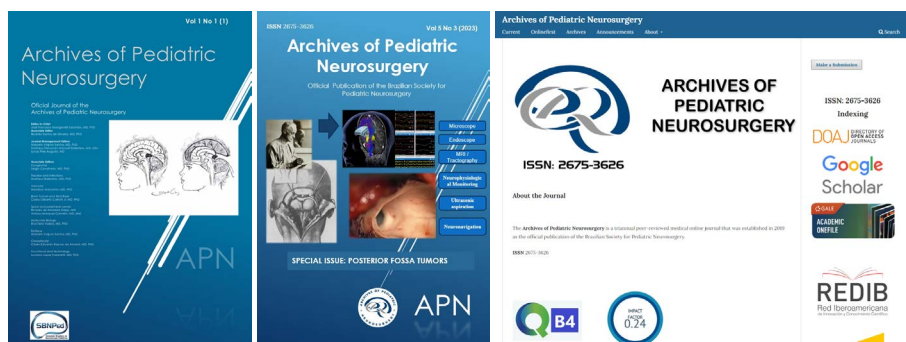
The use of information and communication technologies and the web helps to empower patients (not least through peer-to-peer communications), provides a platform for communication, clinical information and telemedicine (often through mobile devices), and revolutionizes information access and medical education (Eysenbach, 1999).

### 3 Results and discussion

We were not only innovating on content, but also on form. We were the first open access electronic-only journal in pediatric neurosurgery, and also are on social media as Facebook<sup>2</sup>, Instagram<sup>3</sup>, LinkedIn<sup>4</sup>, and X (Twitter)<sup>5</sup>. We have different types of publication highlighted the clinical case, video clinical case, and clinical video lecture. Our YouTube channel, together with Brazilian Society for Pediatric Neurosurgery (SBNPed), has a total of 109 videos and more than a thousand inscriptions.

The Archives of Pediatric Neurosurgery is a triannual peer-reviewed medical online journal and was recognized in September 2020 as the official publication of the Brazilian Society for Pediatric Neurosurgery (SBNPed). APN is also the only journal specialized in Pediatric Neurosurgery in Latin America (Figure 1).

**Figure 1** – A – APN first issue cover; B – Last issue cover 5(3) September 2023; C - Website frontpage



Fonte: Elaboração dos autores

- 1 Archives of Pediatric Neurosurgery website: <https://www.archpedneurosurg.com.br/>
- 2 <https://www.facebook.com/archpedneurosurgery/>
- 3 <https://www.instagram.com/archpedneurosurg/>
- 4 <https://www.linkedin.com/in/archpedneurosurg-apn-843876285/>
- 5 <https://twitter.com/archpedneuro>

We believe APN will contribute in furthering efforts to make our dream a reality getting a pediatric neurosurgery medical journal to be recognized in the World as an option to publish original papers, clinical cases, video clinical cases, and others.

With the rapidity of increase in medical knowledge, physicians will have to rely heavily on medical journals to increase knowledge and improve medical competence. Reputable journals are to be selected for regular readings but most of them are not accessible for developing countries researchers. Effective strategies for journal reading should be developed by each medical practitioner so that current literature can be critically reviewed (Garba *et al.* 2010).

In four years, APN has published 118 international peer-review medical papers in 13 issues from September, 2019 to September, 2023. All articles are available online and free license to open access and download (CC BY 4.0)<sup>6</sup>, publications also have a DOI number provided by Crossref. APN also has an online first issue, where articles are published before a defined issue, making knowledge easily accessible to readers.

During this period, we included a specialized consultancy and we were able to index the APN in several indexing bases: Google Scholar, DOAJ, Cengage, *Rede Ibero-americana de inovação e conhecimento* (REDIB), Gale academic, Crossref, Dimensions, J-Gate, Latindex, and the most recent “Elton B. Stephens Company” (EBSCO).

Since the first edition of the APN in September 2019 there were 152 submissions received (42/year), with a rejection rate of 17% (Table 1). “Journal of Neurosurgery: Pediatrics” rejection rate was 69.0% (2020) (Lee *et al.* 2020) and “Pediatric Neurosurgery” journal was 68% (Karger International, [2023]).

**Table 1** – Editorial information for Archives of Pediatric Neurosurgery

	Last year	Total
Submissions Received	43	152 (42/year)
Submissions Accepted	34	112 (33/year)
Submissions Published	31	109 (33/year)
Days to First Editorial Decision	8	10
--Days to Accept	61	86
--Days to Reject	63	140
Acceptance Rate	81%	74%
Rejection Rate	19%	17%

Fonte: Elaboração dos autores

The APN submission process can be considered unprecedented, using the Google Forms platform, making the process agile without additional costs, with great acceptance from authors.

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Google Forms allows the editorial team to collect authorship data (such as Name, Open Researcher and Contributor ID (ORCID), Affiliation, email, authors contributions, disclaimers, Ethical considerations) without the author’s ability to abstain from filling them out. It also enables the submission of the complete text, including figures, tables, videos, etc., through the FORMS. As a result, after submission, we generate an .xlsx file that is used by MS Word to automatically create a standardized review file through ‘mail merge function.’ Similarly, when the author resubmits the final revised version through the FORMS, it allows us to semi-automatically generate the article’s PDF through ‘mail merge.’ This low-cost approach, while saving editorial work, enables us to achieve unprecedented editorial and graphic quality.

In the times to come, APN will remain committed to publishing novel, high-quality, and valuable content. APN endeavors to bring readers the most up-to-date information in a wide variety of fields in the hopes of ultimately benefiting patients, all while ensuring the largest possible readership for all articles published in the journal.

In our modern globalized academic community, APN recognizes the importance of international collaborations, and seeks to promote itself as an international journal. We have organized a series of articles focusing on important topics in various fields, and invited international prominent experts to co-author.

Based on data from OJS/PKP, APN is gaining momentum and attracting interest from readers. The number of accesses to abstracts has been increasing progressively since 2019 (Figure 2) The literature lacks information regarding the growth of scientific journals.

**Figure 2 –** OKS-PKP Abstracts access since first publication of APN;



Fonte: OKS-PKP (2023)

APN editorial team will pursue the serious work and include the APN in more indexing databases, expanding its importance in pediatric neurosurgery. We can identify several limitations, including challenges in English language editing, a lack of funding,

and constraints within the OJS/PKP platform. Additionally, we encounter difficulties in recruiting reviewers for this highly specialized field of medicine.

## Final considerations

Archives of Pediatric Neurosurgery is an innovative, inclusive journal that adopts new editorial techniques using open and free technology, enabling access to high-quality information for healthcare professionals and patients.

## Authors' Contribution

**Conceptualization, data curation, investigation, methodology, writing – original draft, project administration, validation:** Ricardo Santos de Oliveira.

**Investigation, visualization, writing – review & editing:** Rodrigo Inácio Pongeluppi.

**Data curation, formal analysis, investigation, methodology, supervision, writing – review & editing:** Matheus Ballestero.

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