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RESEARCH AND SURGERY

Recommendations for writing a clinical case

Recomendaciones para la redacción de un caso clínico

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Abstract

Introduction. Clinical cases represent a valuable contribution to medical knowledge, as they allow unusual presentations of diseases to be documented, rare conditions to be described, and hypotheses to be generated based on practical experiences. This article offers a detailed guide on how to select, structure and write a clinical case, addressing everything from case selection and ethical principles to specific recommendations for each section of the manuscript.

Methods. A review of the available literature on the topic in question was made and the most relevant recommendations were presented.

Results. The inclusion of accurate data, an in-depth discussion based on relevant literature, and a clear style are essential elements to maximize the impact of the case. Furthermore, the importance of respecting ethical principles and obtaining the patient's informed consent is highlighted.

Conclusion. This comprehensive approach not only facilitates publication in indexed journals but also contributes to the dissemination of knowledge useful for clinical practice and research.

Keywords: case reports; medical writing; scientific communication and dissemination; scientific publication; journal article.

Resumen

Introducción. Los casos clínicos representan una valiosa contribución al conocimiento médico, pues permiten documentar presentaciones inusuales de enfermedades, describir condiciones raras y generar hipótesis basadas en experiencias prácticas. Este artículo ofrece una guía detallada sobre cómo seleccionar, estructurar y redactar un caso clínico, abordando desde la elección del caso y los principios éticos, hasta las recomendaciones específicas para cada sección del manuscrito.

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Métodos. Se hizo una revisión de la literatura disponible sobre el tema en cuestión y se expusieron las recomendaciones más relevantes.

Resultados. La inclusión de datos precisos, una discusión profunda basada en literatura relevante y un estilo claro son elementos esenciales para maximizar el impacto del caso. Además, se subraya la importancia de respetar los principios éticos y obtener el consentimiento informado del paciente.

Conclusión. Este enfoque integral no solo facilita la publicación en revistas indexadas, sino que también contribuye a la diseminación de conocimientos útiles para la práctica clínica y la investigación.

Palabras clave: informes de casos; escritura médica; comunicación y divulgación científica; publicación científica; artículo de revista.

Introduction

Clinical case reports are an essential tool in medicine and other health sciences to share unique experiences, generate hypotheses, and contribute to collective learning. They consist of a description of the events surrounding a patient's clinical picture, symptoms and signs, physical examination findings, as well as diagnostic procedures, clinical differentiation, diagnostic conclusion, treatment, and evolution.

Although clinical cases have a low level of scientific evidence, their publication favors the understanding of guidelines and correct decision-making. In 1920, Osler, one of the fathers of modern medicine, stated: "Always note and record the unusual. Publish it, keep it on a permanent record as a brief and concise note. Such communications are always valuable" [1].

This article describes the key steps to structure and write a clinical case in a clear, precise, and useful manner, highlighting the relevance of this form of communication in the advancement of medical knowledge.

Choice of case

The first step is to select a case that is relevant and provides significant value. To be sure that the case is truly novel, if we have doubts, it is best to consult specialists in the subject and explore the medical literature through different search engines (PubMed, EMBASE, Google Scholar, Scielo, etc.).

The selected case may be:

- The unusual presentation of a common disease.
- A rare or poorly documented disease.
- The unexpected complication of a treatment.
- The use of an innovative diagnostic or therapeutic intervention.

For publication, it is important to ensure that there are no ethical conflicts, obtaining informed consent from the patient beforehand and complying with local and international confidentiality regulations. This process not only protects the rights of the patient but also supports the transparency and credibility of research.

The case must represent a challenge or provide practical lessons that are relevant to the medical community. It is essential to meticulously document the clinical data and validate their authenticity before proceeding with the writing [2]. Additionally, the potential impact that the publication of the case may have on the development of clinical guidelines or new lines of research must be evaluated.

Types of clinical cases

The three most common types of clinical cases are the following [2]:

- Clinical or hospital case: This is the presentation of the most relevant information about a patient, with his or her background, evolution,

diagnosis and treatment. It is of interest for differential diagnosis and can be closed or open, depending on whether a final diagnosis has been reached or not.

- Series of clinical cases: This is a group of patients with the same diagnosis, in which the variability of signs, symptoms, treatment results, etc., are shown.
- Clinical case with error: The occurrence of an error is used to analyze the process that led to the final result. Its objective is not to blame.

What should be done before writing the manuscript?

- Review the medical literature to select the most relevant articles.
- Read all abstracts, mark those that seem most interesting and obtain the full texts, discarding those that deviate from your case.
- Read these articles, either to present your case or to compare them with what is known so far.
- It is advisable to organize them by category or topic: etiology, clinical presentation, diagnosis, treatment, prognosis, etc.

Structure of a case report

A case report should follow an organized structure that facilitates its understanding, as suggested by the CARE Guidelines [3,4]. The main sections are described in detail below, with additional examples and recommendations:

a. Title

The title should be clear, concise, informative, eye-catching, and reflect the most relevant aspect of the case. For example: "Esophageal replacement with a flexible gastric tube in a pediatric patient after esophageal stricture due to caustics" [5].

To capture the reader's attention, the title can combine the most important findings with the clinical or research implication of the case. In addition, the inclusion of keywords ensures that the manuscript is more easily located in databases. Consider a subtitle to add additional context (such as the fact that it is a case report), without over-extending the main title.

b. Abstract

The abstract should provide an overview of the case. This section, which is often the first thing reviewers and readers read, should include:

- Context or relevance of the case.
- Brief description of the patient and his/her progress.
- Main conclusions and key lessons.

One recommendation is to limit the abstract to 250 words (unless the journal to which it is being submitted requires a lower number of words) and to structure it in short, direct paragraphs, following the same order that will be used in the rest of the document. Language that summarizes the clinical value and the lesson should be used, and the most relevant terms (that match the keywords) should be included to facilitate indexing in scientific search engines [6].

c. Introduction or background

The introduction precedes the case presentation, and one of its functions is to capture the reader's attention so that they continue reading the article. It is also advisable that it be brief and provides the context to understand the importance of the case. It may include:

- General information about the disease or condition.
- Its prevalence and usual clinical characteristics.
- Associated diagnostic or therapeutic challenges.

This section may also highlight the relevance of documenting cases that may shed new light on clinical or therapeutic aspects. It is recommended to use updated statistics to reinforce the importance

of the disease or condition described; citations from recent research or systematic reviews may be included to support the claims.

d. Case presentation

This section describes the specific details of the case [3,7]. It is recommended to follow a chronological order to facilitate the narrative:

- Demographic information: It is important to reference age and sex; depending on the case, there may be other data of interest, such as race, occupation, place of origin or socioeconomic stratum.
- Medical history: Detail the initial symptoms, personal and family history, relevant risk factors and chronological evolution of the clinical picture. It can even be graphed on a timeline.
- Physical examination: Highlight the key findings that guided the diagnosis, indicating normal and abnormal values.
- Diagnostic tests: Include relevant laboratory results, imaging studies or other complementary tests, but be sure to indicate the international units and reference ranges to facilitate interpretation.
- Final diagnosis: Present how the final diagnosis was reached, including differential diagnoses considered.
- Treatment and evolution: Describe the interventions performed, such as procedures, medications or alternative therapies, and the patient's response. It is helpful to include details about clinical follow-up and any complications that have arisen.

Tables are recommended when necessary to summarize extensive data, such as laboratory results, and figures are recommended to document imaging studies, operative findings, or histopathology reports, among others. These clinical images should be accompanied by detailed descriptions of the findings relevant to the case. Diagrams or algorithms illustrating the timeline of the clinical case, the diagnostic or therapeutic process followed, may also be included.

e. Discussion

The discussion is the heart of the clinical case and allows the author to interpret the findings and compare them with the existing literature [8]. This section should include:

- Comparison of the case with others reported in the literature.
- Discussion of the unique or challenging features of the case.
- Clinical relevance and lessons learned.
- Implications for future clinical practice or research.

If the case involves a therapeutic innovation or a complex diagnosis, be sure to justify its importance and possible application. It is recommended to connect the findings with existing theories or paradigms, and to propose questions for future research. Generalizations should not be made based on a single case. It is advisable to also explore the limitations of the management described and how they could be addressed in similar contexts.

f. Conclusion

Emphasize the key lessons of the case and their relevance to clinical practice. A good conclusion should not exceed two or three paragraphs and should summarize the lessons learned. Including suggestions for handling similar cases in the future can add value. Finally, you can summarize how this case could influence the development of clinical guidelines or the training of health professionals.

g. References

Include current and relevant references to support the information presented in the case. Use a standard format according to the guidelines of the target publication, the most commonly used style being the so-called Vancouver style. Format examples include [9,10]:

1. López-Melo D, Olarte-Ardilla R, Charris-Suárez D, Castillo JS, Galvis-Ballesteros W, Quintero-Álvarez F, et al. Comparison of short-term outcomes of minimally invasive laparoscopic gastrectomy in older adults with locally advanced gastric cancer. Rev Colomb Cir. 2024;39:421-9. https://doi.org/10.30944/20117582.2459
2. Ocampo-Anduaga E. Incidental finding of Amyand's hernia in a 10-month-old infant with a history of extreme prematurity: Case report and proposed management. Rev Colomb Cir. 2024;39:793-8. https://doi.org/10.30944/20117582.2438

h. Acknowledgements and statements

It is very important to be clear about the concepts of authorship, which were presented in a previous article in this series [11]. In addition, when appropriate, people or institutions that contributed to the case report should be thanked.

Transparency is key to ensuring reader trust. Therefore, any conflict of interest or source of external funding to the authors should be declared. Acknowledging technical or administrative support may also be appropriate.

i. Annex

This section should include everything that is not part of the body of the manuscript, such as tables, figures, images or videos. If you have good quality images, you should point out the aspects that are not identifiable at first glance for the non-expert reader. You should indicate the source and authorship of the data or figures shown. Both in this section and throughout the manuscript, the dignity of the patient should be respected, avoiding their identification in photographs.

Writing style

It is recommended to consult examples of clinical cases published in indexed journals, especially from the journal to which you wish to submit the manuscript, to adjust the tone and style. These fundamental aspects must be taken into account:

- Clarity and precision: Use clear language and avoid unnecessary jargon.
- Objectivity: Present the facts in an impartial manner.
- Brevity: Be concise, without omitting relevant information.
- Spelling and grammar: Review carefully to avoid errors.

Review and feedback

Before submitting your case to a journal or presenting it at a conference, it is advisable to share your manuscript with colleagues to receive constructive feedback. Consideration should be given to using editing tools or having external reviewers, to ensure a better quality manuscript, and to ensure that it complies with the specific guidelines of the journal or event you are submitting to. An expert reviewer may be able to identify aspects that have gone unnoticed, such as potential biases or areas that need further clarification.

Ethical aspects

Written informed consent should always be obtained from the patient, family member or legal representative for publication of the case and related images, ensuring that their identity is protected. Respect local regulations and follow the principles of the Declaration of Helsinki (12). Protecting confidentiality is a fundamental aspect and any identifying details should be removed or modified.

It is recommended that you have a copy of the informed consent signed by the patient (or his/her guardian), in case it is requested by the editorial team of the journal to which you submit your manuscript. Also, if the clinical case is derived from a larger study, make sure that the protocol has been approved by your institutional ethics committee.

Publication and dissemination

Consider submitting your clinical case to peer-reviewed, indexed journals to maximize its impact.

It is also possible to present cases at medical conferences, which facilitate knowledge sharing and professional networking. Using digital platforms such as academic social media can broaden the reach of your work. However, it is always necessary to respect ethical regulations and ensure that patient confidentiality is not compromised.

How to successfully publish a clinical case?

When evaluating the quality of a clinical case, reviewers usually consider the following:

- Novelty, originality and interest of the case.
- Presentation of diseases or entities not previously described, infrequent or rare.
- Unusual evolution of the symptoms of a common disease.
- Impact of one disease on the evolution of another.
- Use of innovative diagnostic methods.

Practical order for writing a clinical case

The best way to prepare for writing an article is detailed below, although this order does not correspond to the way clinical cases are published in journals, as already mentioned. In general terms, it is recommended:

1 Obtain the signed consent of the patient or an authorized family member.

2 To start the manuscript, write a chronological summary of the case, in a descriptive manner, without value judgments and without comments; and, of course, without information that allows the patient to be identified.

3 Then, write the introduction, which is an invitation to the reader to continue reading. It is important to keep in mind that each statement must be cited.

4 The discussion should continue. Here, the case presented is highlighted and integrated with the articles reviewed. It is discussed whether it has generated new knowledge and whether it can be of practical use.

5 Then, write the conclusion, which is a message that the reader can take home. Generalizations should not be made based on the case in question.

6 References are organized once the manuscript has been completed and numbered in the order in which they appear in the text. They must be up-to-date and no more than ten. Among several options, it is recommended to select those with the best level of evidence or those that have been published in the journal to which the clinical case is to be submitted.

7 Finally, the abstract is written, both in Spanish and English, if Spanish is the main language of the journal.

Follow the instructions of the journal

Once the journal where the clinical case will be submitted has been selected, the instructions for authors must be read and followed, thereby increasing the chances of the manuscript being accepted for publication. Failure to follow some of the rules will be easily noticed by the journal's editorial team, which will unnecessarily prolong the time between the first submission and its eventual publication.

Compliance with ethical standards

Informed consent: This study is a literature review, and as such, there is no need for informed consent or Institutional Ethics Committee approval.

Conflicts of interest: The authors declared that they have no conflicts of interest.

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- Conception and design of the study: Patrizio Petrone, Mónica Bejarano.

- Acquisition of data: Patrizio Petrone, Mónica Bejarano.
- Data analysis and interpretation: Patrizio Petrone, Mónica Bejarano.
- Drafting the manuscript: Patrizio Petrone, Mónica Bejarano.
- Critical review and final approval: Patrizio Petrone, Mónica Bejarano.

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