RBFHSS
Revista Brasileira de Farmácia Hospitalar e Serviços de Saúde

Editorial

Dear author: is your case report paper adequate to international standards?

Prezados autores: o seu relato de caso está adequado aos padrões internacionais?

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Does *Revista Brasileira de Farmácia Hospitalar e de Serviços de Saúde* (RBFHSS) accept Case and Case series reports for publication? We answer this question quite frequently. However, this editorial will address other questions that are equally important, namely: Which is the relevance of a case or case series report? Is the case or case series report well-written considering scientific standards?

Dear author, '*First things first*'![1] This expression indicates something that must be dealt with before anything else, as it is the fundamental element. In this case, it is the relevance of case and case series reports in the scientific context. The absence of a contemporary comparison group, the impossibility of stratifying the analyses by a given risk or protective factor, and the possibility of causal inference bias are determining factors for case or case series reports to appear as studies with low levels of evidence (Figure 1).[2-12]

RBFHSS prioritizes publication of articles with the highest level of scientific evidence. In November 2021, the acceptance rate among all types of articles submitted to the journal was 34%.[13] Thus, in this scenario of high rejection of articles in general and low evidence of case and case series reports, if there is the possibility of organizing the research and the article, at least as a controlled observational study, the publication acceptance chances will be higher.

Regarding the initial question, the direct answer is the following: 'Yes, RBFHSS publishes this type of article.' There is an exception to the journal's rules: they need to be **rare or uncommon cases or outcomes, with pioneering treatments**. In these situations, publication is justified by the qualities inherent to this type of study, such as the following:[14]

a) **Hypothesis generation and proof (or refutation) of concept**: need to investigate an individual case or group of patients when the initial results are unique or convincing in relation to a hypothesis. Thus, this type of study is suitable as a pilot research, acknowledging the limitations of the method and recognizing that it is an initial stage in a research line. When reporting such results, the critical importance of conducting a definitive study is highlighted.[14] A striking example of the relevance of these studies is the association of HIV as the etiological agent of AIDS, which occurred after the findings of a case series report.[15]

b) **Recognition of sentinel events**: prospective studies, including randomized clinical trials, are limited in their ability to identify rare adverse effects from exposures such as treatments. Publication of cases or case series with such adverse events plays a critical role in improving the safety of the patients who are candidates or who are receiving the new treatment. In this case, they can even define a new contraindication, adverse effect or risk groups for monitoring during use of the medication.[14] A recent example was the case reports associated with thrombotic events with COVID-19 vaccines.[16]

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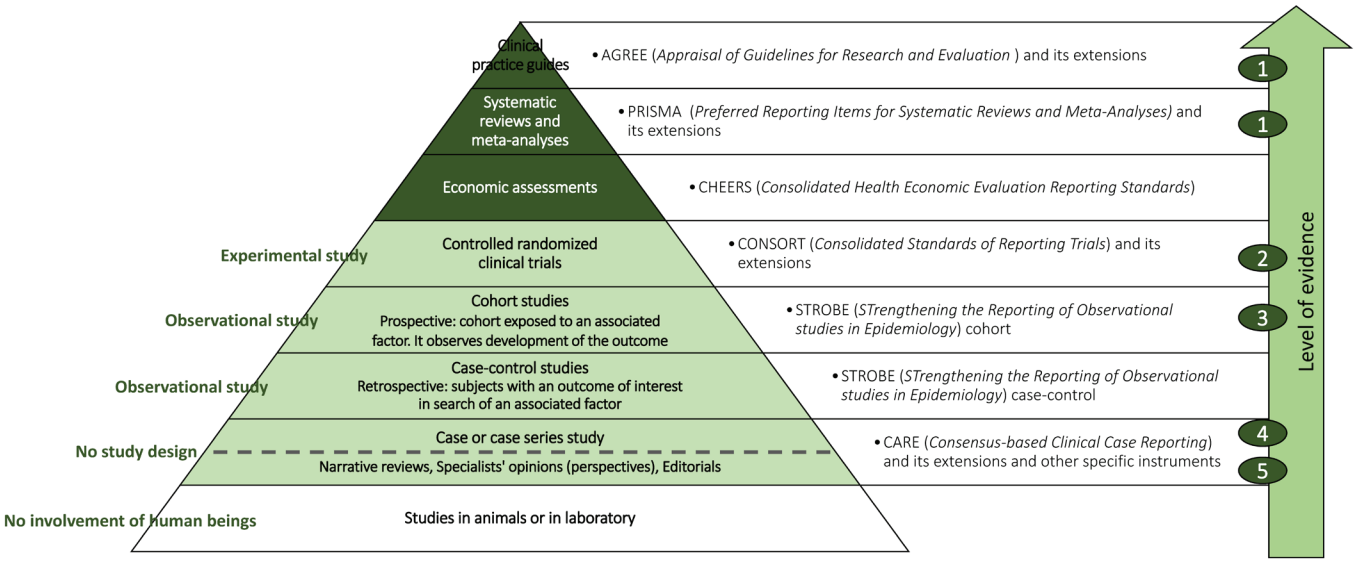
c) **Study of results of rare diseases**: for rare diseases, a long-term observational case series can have the effect of an open cohort study; where identification of the case defines its inclusion into the cohort. This would be a more adequate and economically viable approach to estimate an event's risk. Another advantage is the possibility of grouping these rare cases that occur in a large number of dispersed centers to identify unusual but significant associations that would not be established by a traditional observational or interventional study or that would require an enormous sample and, consequently, would have a high funding cost.[14]

Figure 1. Pyramid showing the evidence of different types of study and some quality algorithms of their description.2-12



Dear editor: How can I improve my publication chances for a case or case series report?

Writing a good quality report is fundamental to maximize probability of acceptance. In Figure 2, we included the diverse information regarding quality scientific aspects of the case and case series reports. They are common elements to a good quality report:[12,14,17]

- **Title**: it should mention the diagnosis or intervention and include the phrase 'case report' or 'case series report'.
- **Keywords**: they should include 'case report' or 'case series report'.
- **Abstract**: it should describe the symptoms, diagnosis, interventions, outcomes and lessons learned from the case.
- **Introduction**: it should include an identification of how unique or uncommon the situation is, as well as the hypothesis that justifies publication.
- **Patient's detailed information**: selection, potential biases, and clinical, psychosocial and family aspects.
- **Time line for case care**
- **Clinical findings and detailed diagnostic analysis**: types of tests performed and control references, among others.
- **Interventions conducted**: it is recommended to read Resende *et al*.[18]
- **Monitoring**: it is recommended to read Resende *et al*.[18]
- **Discussion**: it should indicate the study limitations, comparison groups in other studies, application/lessons learned from the report, biological plausibility, and subsequent research approaches for continuity of the research.
- **Patient's perspective**: only for case reports.
- **Informed consent**
- **Approval in Ethics Committee**

Another very useful element to describe a good case report is the Flow Diagram — Case Reports following the CARE guidelines.[19] It is noteworthy that, even according to the report's objective, there are specific instruments that guide quality of the writing (Figure 3).[20-28]

Considering the elements discussed and the strength of evidence in this editorial, we can infer that case and case series reports can be highly relevant in rare and unique situations, provided they are properly conducted and applied as a stage in a research line that considers studies with more robust scientific evidence.

We end this editorial hoping that we have enabled the authors to write good reports and the readers to make a critical analysis of this type of study, as well as emphasizing that, in Brazil, case reports must be approved by the Research Ethics Committee, in addition to having the patient's consent.[17]

Figure 2. Specific elements for a good case or case series report regarding the quality of their description.[12,14,17]

Element	Case report	Case series
	CARE Checklist of information to include when writing a case report[14]	**Kempen (2011)12**
Title	The primary focus diagnoses or interventions, followed by the phrase "case report"	
Keywords	From 2 to 5 keywords that identify diagnoses or interventions in the case report, including "case report"	
Abstract	• Main symptoms and/or findings with clinical importance. • The main diagnoses, therapeutic interventions and outcomes. • Conclusions: Which is the main lesson "learned" from the case?	
Introduction	One or two paragraphs summarizing why this case is unprecedented in the literature.	Description of a hypothesis can also be a key factor in establishing why the article is of interest and should be accepted by the journal as a final stage in the introduction.
Patient's Information	• Identification of the patients' specific information. • The patient's primary concerns and symptoms. • Medical, family and psychosocial history, including relevant genetic information. • Previous relevant interventions with their outcome.	• Precise definition of the inclusion criteria. • The potential selection biases must be clearly mentioned. • As much as possible, avoid selection of consecutive patients for inclusion.
Clinical Findings	• Describe the Physical Examination (PhE) of interest and clinical findings.	
Time Line	• Make historical and current information regarding the care episode available, organizing it in a Time Line.	
Diagnostic Evaluation	• Diagnostic testing (such as PhE, laboratory tests, imaging, research). • Diagnostic challenges (such as testing, financial or cultural). • Diagnoses (considering inclusion of other diagnoses). • Prognosis (such as Oncology staging), when applicable.	
Therapeutic Intervention	• Types of therapeutic interventions (such as pharmacological, surgical, preventive, self-care). • Administration of therapeutic intervention (such as dosage, concentration, duration). • Changes in therapeutic intervention (present the rationale).	• Detailed description of the intervention: sufficient to allow replicating the study. • Precise description of how any treatments were applied, whether they are related to the desired outcome or not directly associated with the report, but which can be configured as confounding factors.
Follow-up and Outcome	• Clinical or patient-evaluated outcome (if available). • Monitoring of the important diagnoses and of other test results. • Intervention's adherence or tolerability (How was this evaluation made?). • Adverse and unexpected events.	• As with any study, statistics assessing the potential contribution of random error to the results observed are necessary, such as confidence intervals indicating the plausible range of values for risk estimates. • The risk estimates must use the adequate association measure for the data's nature. • A common mistake is to use statistics which assume that the event's risk is equal for all patients when, in fact, it is not the case (such as the situation in which the event's risk monitoring time differs between the patients). • The assumptions of the statistical methods and of the hypothesis test paradigm used must be met.

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Element	Case report	Case series
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Discussion	• A scientific discussion of the strengths AND limitations associated with the case report. • Discussion of the relevant medical literature with its references. • The scientific rationale for all the conclusions (including the assessment of possible causes). • The main lesson "learned" with the case report (without references) included in a single conclusion paragraph.	• As the study lacks internal controls, the report should provide a discussion of how the results compare to those of an appropriate external comparison group. • A careful description of the external comparison group is necessary, along with a careful discussion of why such comparison is unlikely to deviate from the conclusions. • Clearly discuss and establish the biological plausibility of the explanation invoked to explain the results. • The limitations must be clearly stated. • The potential approaches to overcome these limitations must be described. • Which confirmatory studies would be the next appropriate stages throughout the clinical research line?
The Patients' Perspective	The patients must share their perspective in one or two paragraphs about the treatment(s) they received.	
Free and Informed Consent Form[1]	Did the patients provide their Free and Informed Consent? Please, make it available if requested.	

[1]The National Research Ethics Commission requires that the report be approved in an Ethics Committee.[17]

Figure 3. Guidelines for the writing quality of case and case series reports in specific situations, description.[20-28]

Area	Specific guideline
Surgery	SCARE (*Surgical CAse REporting*)[21]
	PROCESS (*Preferred Reporting of Case SEries in Surgery*)[21]
	Designing and Reporting Case Series in Plastic Surgery[22]
Behavior	SCRIBE (*Single-Case Reporting Guideline In BEhavioural Interventions*)[23]
	Guidelines for Clinical Case Reports in Behavioral Clinical Psychology[24]
Integrative and complementary practices	HOM-CASE (*HOmeopathic Clinical CASE Reports*)[25]
	Reporting Case Series and Audits–Author Guidelines for Acupuncture in Medicine[26]
Tumors	*Guidelines for Reporting Case Series of Tumours of the Colon and Rectum*[27]
Extracorporeal interventions for poisoning	EXTRIPE guideline (*Reporting Case Studies on Extracorporeal Treatments in Poisonings*)[28]
Accidents, natural disasters and emergencies	CONFIDENCE (*CONsensus Guidelines on Reports of Field Interventions in Disasters and Emergencies*)[20]

Conflict of interest statement

The authors declare no conflict of interest in this article.

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