

How to write a case report? Guidelines for Internists

Paola Gnerre,¹ Micaela La Regina,² Giorgio Ballardini,³ Giuseppe Chesi,⁴ Paola Granata,⁵ Giovanni Scanelli,⁶ Sirio Fiorino,⁷ Francesco Dentali,⁸ Roberto Nardi⁹

¹Internal Medicine, San Paolo Hospital, Savona; ²Internal Medicine, POU del Levante Ligure, ASL 5, La Spezia; ³Internal Medicine Unit II, Infermi Hospital, Rimini; ⁴Department of Internal Medicine, Sud Area AUSL Reggio Emilia; ⁵PAGEPress Scientific Publications, Pavia; ⁶Internal Medicine Unit, AOU Ferrara, Arcispedale Sant'Anna, Ferrara; ⁷Internal Medicine, Azienda USL di Bologna, Budrio (BO); ⁸Department of Clinical and Experimental Medicine, Insubria University, Varese; ⁹Internal Medicine, Bologna, Italy

A *case report* is a detailed narrative of symptoms, signs, diagnosis, treatments and follow-up of one or several patients. Although, in evidence-based medicine, randomized clinical trials provide most of the scientific evidence, whereas case reports play in general a minor role, they represent an important part of medical practice.¹ Case reports have significantly influenced the evolution of medicine, as can be seen in the literature in several examples of how they have contributed substantially to the advancement of science. The discovery of one of the most common forms of congenital thrombophilic abnormalities resulted from the description of a family with frequent episodes of thrombotic events. Likewise, a case report on the occurrence of hypoglycemia in a patient after injection of sulfur compounds led to uncover a new class of hypoglycemic drugs.² They often report the first evidence of new therapies, but they are hardly ever sufficient to confirm their efficacy. They are frequently the first and sometimes major source of information about rare adverse events and the only one about rare cases.³ Case reports can also be regarded as a rich mine of hypotheses. All current knowledge about the infection from HIV clinical syndrome or septic shock resulted from the observation of individual cases.² Therefore case reports have proven quite helpful in the identification of adverse and beneficial effects as well as unusual or novel manifestations of common or rare diseases. They can also be hypothesis-generating for fu-

ture clinical studies and useful sources of reference for personalizing treatments in clinical practice.⁴ For these reasons our Journal does not exclude the publication of case reports, however the Authors have to comply with a few rules for submission.

Which cases do we want to publish?

Guidelines for publication of case reports

According to the Journal policy, only cases with clinical valuable lessons and with clear proof of cause and effect will be published. Cases that present a diagnostic, ethical or management challenge or highlight aspects of mechanisms of injury, pharmacology and histopathology or are accompanied by a literature review of the topic presented are deemed of particular educational value.⁵ The narrative should include a discussion of the rationale for any conclusion and any take-home message. Information on the patient should be presented in the chronological order it has emerged in clinical practice. The evaluation will take into account the following aspects² (Tables 1 and 2):

- *Originality*: unusual in the common clinical practice of the condition described.
- *Quality of the presentation*: compilation of case reports in accordance with the indications above.
- *Correctness*: adoption of commonly accepted diagnostic criteria for case definition and resolution of any diagnostic doubts.
- *Sustainability*: sustainability assessment of the conclusions based on the data presented.
- *Usefulness/relevance*: potential impact in current clinical practice.

How to present case reports

The text should not exceed 1500-1800 words, with a maximum of 1-2 tables and 3 figures and a final paragraph containing the key take-home messages. A maximum of 15 references are allowed. The cases with a literature review on the topic addressed may exceed the above limits. Case reports may not be sub-

Correspondence: Paola Gnerre, Ospedale San Paolo, via Genova 30, 17100 Savona, Italy.
Tel.: +30.019.8404082.
E-mail: pgnerre@yahoo.it

Key words: technical note, case reports, guidelines.

This work is licensed under a Creative Commons Attribution NonCommercial 3.0 License (CC BY-NC 3.0).

©Copyright P. Gnerre et al., 2014
Licensee PAGEPress, Italy
Italian Journal of Medicine 2014; 8:200-203
doi:10.4081/ijm.2014.535

ject to review, whenever considered of little interest by the Editorial Board.

Table 3 shows the requested checklist for the submission of case reports to our Journal.

Format for tables and figures

If *Tables* are used, they should be double-spaced and numbered consecutively in the text.

If *Figures* are used, they should be submitted as .tiff or .jpg files (Power Point format is also accepted), with the following digital resolution:

- i) color (saved as CMYK): minimum 300 dpi;
- ii) black and white/grays: minimum 600 dpi;
- iii) one column width (7.5 cm) or 2 column widths (16 cm).

A different caption for each figure must be pro-

vided (typewritten) at the end of the manuscript and *not* included in the figure file.

Tables and figures should be attached separately from the text.

For further details, please also consult the PAGE-Press Style Manual (par. 1.4. *Tables and Figures*, pp 12-16), downloadable from: http://www.pagepress.org/files/guidelines_authors.pdf

Conclusions: beware of the main rules and tips

Some journals do not publish case reports, whereas other journals publish only case reports. As hospital internists we believe that publishing clinical cases derived from the real world is important to our cultural development. Writing case reports is one of the best

Table 1. Criteria for case reports.⁵

Reminder of important clinical lesson
Findings that shed new light on the potential pathogenesis of a disease or an adverse effect
Learning from errors
Unusual presentation of more common disease/injury
Clinical complex problem-solving approach
Therapeutic challenges, controversies, or dilemmas
Report of new medical errors or pharmacological errors
Myth dispelled
Uniqueness of the case
Rare disease
New disease
Novel diagnostic procedure
Novel treatment (new drug/intervention; established drug/procedure in new situation)
Unusual association of disease/symptoms
Description of life-threatening adverse events
Opportunity for further research hypotheses
Review of a specific job description of a health care professional that improves patient care
Global health
Unexpected outcome

Table 2. Description of the case.

Is the case described adequately?
Is the case described briefly?
Is the case described clearly?
Are the results of investigations described adequately?
Are the results of less common laboratory tests accompanied by reference values?

ways to get started in medical writing and to describe important scientific observations that may be missed or hard to notice in clinical trials.⁶ Case reports can retain the readers' interest and take less time compared with other kinds of publications. After describing the benefits that can potentially derive from the publication of case reports, we also need to recall some pos-

sible limits to it. Major potential reason for rejection may be: lack of novelty (confirmation), inappropriateness of topic for the Journal, poor writing, plagiarism, redundant publication (as in the case of same data published in different journal, data on website and/or included in a previous review article).

Therefore, before submitting a case report, the au-

Table 3. Requested checklist for the submission of case reports to our Journal.⁵

Checklist to be fulfilled for the submission of case reports to our Journal	
Title	The words <i>case report</i> or <i>case study</i> should be included in the title along with the key element of the case (symptom, diagnosis, test, intervention)
Key words	The key elements of this case in 2-5 words
Abstract	<ul style="list-style-type: none"> - <i>Introduction.</i> What does this case add? - <i>Case presentation.</i> Main symptoms of the patient, main clinical findings, main diagnoses and interventions and main outcomes - <i>Conclusions.</i> What are the main <i>take-home</i> lessons from the case report?
Introduction	Brief background summary of the case with references to the relevant medical literature: <ul style="list-style-type: none"> - Describe the subject matter - State the purpose of the case report - Provide background information - Provide pertinent definitions - Describe the strategy of the literature review and provide search terms - Justify the merit of the case report by using the literature review - Introduce the patient case to the reader Make the introduction brief and less than three paragraphs
Patient information	<ul style="list-style-type: none"> - Demographic information - Main symptoms of the patient - Medical, family and psychosocial history
Clinical findings	Describe the relevant physical examination findings
Timeline	Report important dates and times in this case (in tables or figures): <ul style="list-style-type: none"> - Check temporal relationship - Check causal relationship - Ensure that the patient case presentation provides enough details for the reader to understand the case's validity
Diagnostic assessment	<ul style="list-style-type: none"> - Diagnostic challenges - Diagnostic reasoning, including other diagnoses considered - Prognostic characteristics where applicable - Diagnostic methods
Therapeutic intervention	Types of intervention (pharmacologic, surgical, preventive and self-care)
Follow up and outcomes	Summarize the clinical course of all follow-up visits including: <ul style="list-style-type: none"> - Clinician and patient-assessed outcomes - Important follow up test results - Intervention compliance and tolerability - Adverse and unanticipated events Report the validity of the case report by applying a probability scale, such as the Naranjo nomogram
Discussion	<ul style="list-style-type: none"> - Compare and contrast the strengths, nuances and limitations in the management of this case - Explain or justify similarities and differences between the case report and the relevant medical literature - List the limitations of the case report - The rationale for conclusions - The main <i>take-away</i> lessons of this case report
Patient perspective	The patient should share his or her perspective or experience whenever possible
Informed consent	Requested <ul style="list-style-type: none"> - Obtain permission from the patient to use the patient's photographs - Report the patient's events in chronological order

thors should read with particular attention the Journal *Guidelines for Authors*, available at: <http://www.italjmed.org/ijm/about/submissions#authorGuidelines>

The authors should think about the Journal, its editors, and reasons for submission. They are requested to pay close attention to spelling, grammar, and punctuation, avoiding careless mistakes. References should be comprehensive and accurate.

References

1. Cohen H. How to write a patient case report. *Am J Health Syst Pharm* 2006;63:1888-92.
2. Mascella F, Ballardini G. Suggerimenti per la compilazione e la valutazione di abstracts di case reports o case series e per la loro presentazione ai congressi di FADOI Emilia Romagna. *Ital J Med* 2010;4:3-5.
3. Naranjo CA, Busto U, Sellers EM, et al. A method for estimating the probability of adverse drug reactions. *Clin Pharmacol Ther* 1981;30:239-45.
4. Guyatt GH, Meade MO, Jaeschke RZ, et al. Practitioners of evidence based care. Not all clinicians need o appraise evidence from scratch but all need some skills. *BMJ* 2000;320:954-5.
5. Gagnier JJ, Kienle G, Altman DG, et al. The CARE guidelines: consensus-based clinical case reporting guideline development. *J Med Case Rep* 2013;7:223.
6. Leng S, Nallamotheu BK, Saint S, et al. Simple and complex. *N Engl J Med* 2013;368:65-71.