



### An overview of writing a case report

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**Received date:** 29 January 2019; **Accepted date:** 13 February 2019; **Published date:** 17 February 2019

**Citation:** El-Gilany AH, "An overview of writing a case report", *Asp Biomed Clin Case Rep*, vol.2, no.1: 1-5, 2019.

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#### Abstract

For most authors, the case report is the first piece of research writing. This editorial discusses the essential components of a case report to guide authors to improve their writing skills and thus avoid the disappointments of rejection. The sections of the case report are the title, abstract with keywords, introduction, case description, discussion with conclusions and references. The case report should be clear, concise, coherent, and must convey a crisp message. Common pitfalls and mistakes will be discussed.

#### Keywords:

Case Report; Components; Writing; Guidelines.

The case report is usually the first piece of medical writing which most authors attempt. Different categories of case reports require slightly different styles of writing and highlighting key points, therefore authors must be familiar with the components of the case report [1].

#### Components of a case report: [2,3,4]

Case reports are the shortest types of articles. In general **case reports** have the following sections: a title, an abstract, keywords, an introduction and objective with a literature review, details of the case report, a discussion that should include an explanation of the literature reviewed, a conclusion and references. Tables, figures and graphs are essential to enhance the flow and clarity of the manuscript. Case reports are written in the third person (do not use I or we) and narrative form.

Case reports do not follow the **IMRAD**

(introduction, methods, results, and discussion) format of the original manuscript.–The format for case reports varies from one journal to another and the authors should follow the journal's instructions. More recently, consensus-based clinical case report guidelines have been advocated. Authors planning to write a case report must make themselves familiar with the 13 item checklist of **CAse REport (CARE)** guidelines [5].

#### *I-Title:*

The title is the first component that will be read by the readers. It should be concise, informative, accurate, relevant to the subject and perhaps catchy. The ideal title should attract the reader's attention and try to focus on a definitive issue [6,7]. The title should summarize the contents clearly. It is better to select the title after the whole text has been written because the authors can select the title based on the

predominant issue discussed in the manuscript [8,9]. Many variations exist in writing the title of the case report. A few use the term "case report" and others the diagnosis and epidemiology characteristics or salient manifestations of the case in the title. It is better to avoid redundant words such as "case report", "review of", "unique case" or "first report of" [10,11,12].

The formats of titles can be nominal and compound. A single phrase is a nominal title. On the other hand, the compound title consists of two phrases in succession. Titles of articles in leading journals average between 8 and 9 words [13].

#### *II-Authors:*

Maybe single or multiple authors. Include name, degree and institutional affiliation. The first author is the person who wrote most of the manuscript and preferred to be the corresponding author. In order to be included as an author an individual should: 1) have made a significant intellectual contribution in carrying out and writing up the report or have been involved with the medical care of the patient reported; 2) be able to explain and defend the data presented in the article and 3) have approved the final manuscript before it is submitted for publication [14].

#### *III-Abstract:*

Abstract is a factual (no opinions) brief summary of the case report. It includes the rationale of the report, objective, brief background, description of the case, main intervention and outcome (if any) and conclusions. It is a very important part of the article because most people will read only the abstract [4,10,12,15,16,17]. There are two formats for abstracts depending on the journal style [10,13,18,19]: 1) a narrative (unstructured) abstract written as a single paragraph without headings that logically summarize the study and its results; 2) a structured abstract contains headings which usually correspond to the major sections of the paper e.g. introduction, case presentation, management and outcome, and conclusions.

#### *Keywords list*

Provide 3-5 relevant keywords or phrases that could be used in an internet or PubMed search to find the article. It is better to choose keywords from a standard list of keywords, such as **MeSH** (Medical Subject Headings) [13].

#### *IV-Introduction/background:*

A focused comprehensive literature review that summarizes the background and context of the case report. It should include a brief relevant literature review including any landmark papers on the issue. If similar cases have been reported previously, describe them briefly and cite the reference [13]. It usually ends with a rationale (justification) to why the case is worth reporting [4,10,17]. This section should not exceed one typed page. A more detailed literature review actually belongs to the discussion although critical evaluation of the literature is still required [7,10]. For some journals, there is no introduction section and the body of the case reports starts immediately with a description of the case [7,12].

#### *V-Report (Case description, Method):*

This is the main body (core part) of the case report. The case is best presented in chronological order and in enough detail for the reader to establish his/her own conclusions about the case's validity [4,9,10,20]. In two or three well-laid out paragraphs, authors must present the patient's information, clinical history, presenting features, family, social occupational history, clinical examination findings, diagnostic assessment including all relevant investigations, differential diagnosis, the unconventional treatment (if relevant), outcome and patient's progress, follow up and complications if any. It must follow a logical sequence and timeline [3,10,13,16,17,18,19,21,22]. Care should be taken to maintain the patient's confidentiality. The authors should establish a causal and temporal relationship and indicate the need for any further treatment and the patient's status at the time of the report's writing [12].

#### *VI-Discussion:*

This is the most important section of the manuscript. It serves to summarize and interpret

the key findings of the case report, to contrast the case report with what is already known in the literature and justify its uniqueness, to derive new knowledge and applicability to practice, and to draw clinically useful conclusions [4,11,18,23,24] and finally, summarize the lessons learned from this case [13]. A final element for the discussion is some suggestion for future inquiry into the topic stating that "more research is needed". Authors should state and describe the significance of any limitations of the case. The value that the case adds to the current literature should be highlighted, so should the lessons that may be learned from the case presented, especially if new recommendations for patient diagnosis (with use of an imaging modality) or management, could be put forward [4,10,23].

#### *VII-Conclusions:*

A case report ends with a conclusion, depending on the journal's format. After reviewing all the evidence in the discussion section, the author must provide a justified conclusion. This section gives readers the main points covered in the case report. The authors can give suggestions and recommendations to clinicians, teachers, or researchers. Some journals do not want a separate section for the conclusion: it can then be the concluding paragraph of the discussion section [4,16,17]. Please do not over-interpret the case/results, be concise.

#### *VIII-Supplementary parts:*

This includes tables, figures, and graphs (with their legend, if any), which provide additional data to support the text and provide the reader with more detail. This data should not duplicate that within the text [13,25]. Most journals in their guide to authors provide information about the length, number, and type of figures and tables, number and style of references, etc. for a case report. Authors must go through the guide to authors and journal policy before submitting their work to a particular journal.

#### *Acknowledgments:*

Author thanks any anyone provided assistance with the preparation of the case

study. Thanking patients is neither necessary nor conventional. It is inappropriate to thank others who did not directly participate in the preparation of the manuscript.

#### *IX- References cited:*

References should provide additional information and details for readers and they should support specific points highlighted.

Authors should use the most recent relevant references unless the history of scholarship in a topic area is being discussed. The number of references varies depending on the content of the report. A single authoritative reference may be adequate. The references should be cited as per the style and methods recommended by the journal in its instructions to authors [2,13,16,20].

#### **Common pitfalls and mistakes**

##### *Inexperience:*

Clinicians may decide to report their first case without experience in scientific writing. It can be tackled by reading reports in the literature and seeking help from mentors and experienced colleagues [26].

##### *Insufficient documentation:*

For a case to be reportable the diagnosis must be definite and the documentation required for this purpose is much more extensive and rigorous than that required in everyday practice [26]. The patient must not bear the cost of sophisticated investigations required for confirming the diagnosis but not for routine care [27].

##### *Inappropriate format:*

The authors are required to strictly follow the journal instruction—and read case reports published in the journal. Unclear and ineffective illustrations weaken the manuscript [26].

##### *Poor writing:*

Journals expect the report to be accurate, brief and clear [10]. Poor writing delays the review process, for sure. Authors can request experienced colleagues to offer comments and critique regarding inconsistencies, clarity,

grammar, and syntax before the draft is finalized [10,26,28].

#### Authorship:

The issue of authorship should be settled even before writing of the case report [26]. The authorship should be restricted to those who have made substantial intellectual contributions to the manuscript and clinicians who participated in patient diagnosis and management provided they also contribute to the manuscript writing and review.

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