How to write a case report

Rahij Anwar and colleagues give advice on the practical details of writing case reports

Research has become an integral part of medical careers. A case report is a way of communicating information to the medical world about a rare or unreported feature, condition, complication, or intervention by publishing it in a medical journal.

When to start

education

Be on the look out for a case report from the start of your basic surgical or medical training. This will introduce you to the research world, and if your report is published it will be an asset to your CV. Any kind of research entails a lot of hard work and persistence. Your thought processes should be geared towards research in your postgraduate career, and you should use every opportunity you get for writing a report. So if you come across something unusual, discuss it with a consultant, particularly one who is keen on research.

Many consultants have huge amounts of material in the top drawers of their desks, waiting to be published. All they want is an enthusiastic medic who will help share their load in writing and getting it published. They are usually helpful if you ask them about this.

How to start

A senior doctor's help is a must from the beginning. He or she may know from their experience what cases are suitable for publication. Do an extensive literature search—PubMed, Medline, Ovid, Embase, and even search engines like Google will give you a vast amount of information related to the condition or feature you are after. Narrow down the search to your actual topic. If this comes up with very few search results, it means (assuming your search method is correct) that the case is rare and the report is therefore more likely to be published.

Your hospital library staff can help (especially in the beginning) by doing your searches for you and then getting relevant literature from other sources, if necessary. So don't be afraid to ask them. It is always useful to read in a standard textbook or appropriate journal everything about the topic that your case report relates to. Note down or photocopy important references at the end of the chapter or article and follow them up.

Obtaining consent from the patient is not only good medical practice but also mandatory for some journals, such as the *BMJ* (which has its own consent form on bmj.com). If there is no standard form, make up your own. It is useful to have the patient's contact details on the form just in case you want to trace him or her later. It is also polite to ask permission from the doctor in charge of the patient's management.

How to collect information related to the case

After you have done the groundwork, collect all the material for the case report. Use the patient's notes to record the details of all the events in the patient's care—that is, history, examination findings, results of investigations with dates, and operative findings, if any, together with the details of the actual intervention and follow ups. Get copies—do not take the originals (they are the patient's only records for future reference). You are allowed to have copies only of radiographs, slides, photographs, and so on, but in this electronic age it is better to use a digital camera for your personal copies of radiographs and clinical photographs. This avoids many potential problems and saves a lot of time. Make sure you return the notes

and radiographs to their original source. You should also visit the patient again and make sure you have got the facts right.

Which journal to choose

Again, the advice of your supervising consultant is useful. Select a journal that you think would be the most appropriate for your case report. For example, unusual injury presentations are more likely to be accepted in the journals such as *Trauma* rather than more mainstream, general interest journal. The *BMJ* does not publish case reports, only Lesson of the Week. In other words, be sensible in choosing the journal.

Download or copy the information for authors for that particular journal and keep the hard copy safely in a folder with all the other information about the case. It is also useful to have a copy of any case report from a previous issue of the journal to get an idea of the presentation. It is extremely important to understand the basic format required by the journal. Your case report may be rejected because it does not conform to the standard format, no matter how good the content is. Margins, spacing, figure numbering, and style of references (Vancouver, Harvard, and so on), all are important aspects.

How many colleagues should be included?

The honest answer is not many: the supervising consultant and maybe one or two other colleagues, depending on how sincere and helpful they have been in collecting information or literature. You or your consultant (discuss with him or her) must be the first author. Do not ever give photographs or any other material related to your case report to anyone who you think might misplace them.

How do I write it?

It is best to write everything in one stretch. Piecemeal writing consumes time because you have to go over everything repeatedly. The following format is the most common way of writing a case report.

Introduction

Describe your case report in one sentence. Also mention how rare it is.

Case report

You have to summarise the information that you have gathered: a brief history and important and relevant positive and negative findings with details of investigations, treatment, and the condition of the patient after treatment. Don't include unnecessary details. Remember, this part should read like an interesting story, which your reader should enjoy.

One common form of presentation is to divide it into separate paragraphs with history, examination, investigation, treatment, and outcome in separate paragraphs–a textbook style of presentation without the headings.

Discussion

Remember that the probability of getting any research work published in a reputable journal is determined primarily by how well your arguments are presented scientifically —that is, how your report is supported or discussed. The first paragraph may explain the objective of reporting the case.

You must subsequently describe whatothers have written before about the condition or any related feature. Be generous in quoting the literature but don't go into unnecessary details.

The third and most important stage in the discussion is to substantiate the message you are trying to convey. Your reviewers want proof of the rarity of the condition and the scientific explanations for it. If you don't do this, they are likely to reject your report immediately. So you must be able to describe the cause of the condition or why a particular procedure or feature was chosen. How did it influence the outcome? How does it differ from usual and what are your



Box 1: Stages in writing a case report

- Finding a rare case
- Literature search
- Collecting information related to the case, including consent
- Summarising and writing
- Revising and editing

Investigations

Progress

Treatment and outcome

Box 2: Format for writing a case report

- Introduction
 Case report—the real story History Clinical features
- Discussion-review of literature Arguments Message Recommendations, if any
 - References

recommendations? Are there any lessons to be learnt? All (or at least, most) of these questions need to be answered in the discussion.

Conclusion

This is not always necessary in a case report but if it is, summarise your message in a few sentences.

References

The reference section is boring and time consuming but extremely important. Keep to the style (Vancouver, Harvard, etc) that your journal requires. The references should be in the form of numbers as you go along (usually 1, 2, 3, etc, as superscripts or in brackets in the order of appearance, as required by your journal). It is useful to put the same number on your hard copy of the reference.

Finishing touches

Expect to have to edit and revise the report about three times. Make sure you use the spell and grammar check on your computer. Every section of the case report—discussion, reference, etc—should start on a new page. Get the senior author (usually supervising consultant) to review the finished report and then write a covering letter. All the other documents, including photographs, copyright, and so on, as required by the journal, should be attached to the final copy of the report before sending it to the journal.

You are allowed to have a party once you have put your completed case report in the mailbox. Not for celebration but for preparation. Your search for the next case report should start the next day.

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