

## *Evidence-based practice tutorial: How to Write a Case Report*

The mantra “publish or perish” is becoming increasingly relevant to all health care practitioners. Few practitioners in private practice will have the opportunity to be involved in large scale clinical trials but writing a case report is possible for any osteopath. Case reports are frequently published in the medical literature; more than 240,00 have appeared in MEDLINE in the past 5 years. Case reports can be used for educational purposes providing an enormous amount of clinical information about a valuable lesson from practice; they can describe a diagnostic or therapeutic dilemma or present important information on an adverse reaction to a particular form of treatment. Additionally case reports can also suggest the need for change in practice or thinking in terms of diagnosis or prognosis. Suggestions for changes in intervention(s) or prevention cannot be made from case reports since they require stronger evidence. It is unfortunate that case reports are regarded as being quite lowly in the hierarchy of evidence (see Figure 1) since many practitioners feel they provide a great deal of helpful information.

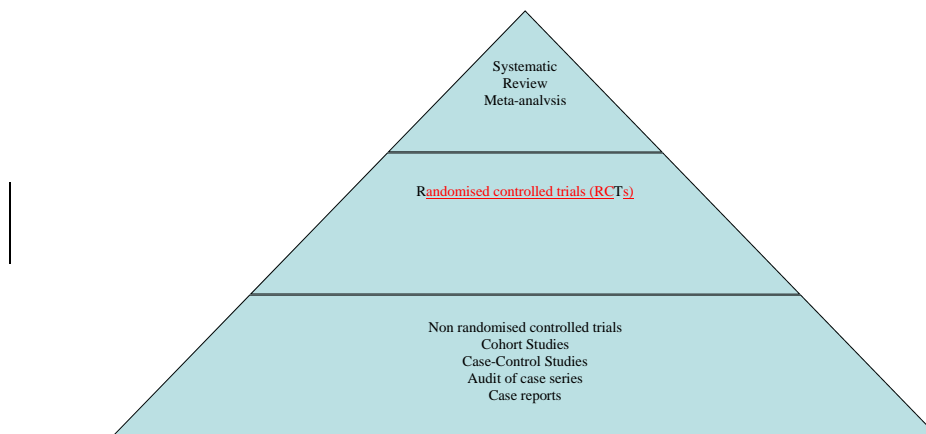


Figure 1. The Hierarchy of Evidence

This sentiment was acknowledged by Brodell (2000)<sup>1</sup> who stated “In this era of outcome studies and evidence-based medicine, the value of case reports, physician intuition, and serendipity is often overlooked. All science is rooted in observations, and full time clinicians are in ideal positions to observe unusual cases, develop rational explanations for the findings, and follow progress to determine if their hypothesis appears to be valid.” Therefore, the collected findings of case reports may provide bases for future research studies that will lead to evidence-based treatments.

If a patient has presented in clinical practice with an unusual or interesting disorder, it can be helpful to capture this in a case report. If you feel you would like to write a case report, written and signed consent should be obtained initially from a patient or their guardian. Obtaining consent is mandatory for some journals, but it is important to realise that this is a demonstration of good practice.

Once a suitable patient has been identified, there are certain steps to follow when writing a case report. A literature search should be carried out using suitable databases e.g. Medline, Pub Med, AMED and a search engine e.g. Google. A summarised account should be written including a patient's history, the examination(s) performed, the clinical features revealed in the examination, investigations that have been requested or already conducted (if appropriate), results of relevant investigations (both negative and positive findings), treatment and management strategy undertaken and the outcome of treatment. The patient's notes can be used to recall these details. Previous treatment and the outcome of any previous treatment should also be included. Confidentiality is essential and all of the information relating to the patient in the case report should be anonymised to prevent the patient's identity being revealed.

When considering a particular journal for submission of a case report, its website should be visited to identify the type of submissions a journal will accept. Some journals e.g. British Medical Journal, don't accept case reports per se, but have a section described as "Lesson of the Week." It is also important to consider the word limit and basic format required by a journal for each article. Formatting requirements in journals dictate the manner in which margins, numbering and spacing should be presented. Each journal will also have a preferred manner for presenting references e.g. Harvard, Vancouver (also known as output style).

The commonest way to present a case report is as follows:

### **Introduction**

Summarise what your case report is about in one or two sentences.

### **Case Report**

This should be a summary of the information obtained from the patient's history, examination, test results and treatment. Each category of information can be enclosed in its own paragraph without headings. This part should read easily as if telling a story about the patient and omitting any unnecessary details. This should contain selected clinical material which illustrates the points you are making; it should not be a blow by blow account of a consultation and treatment.

### **Discussion**

This section should include a number of different criteria. The reason for writing a case report on the particular patient chosen should introduce the discussion. This can then be followed by what the literature search revealed and provide information concerning what other authors have written about this particular subject area.

The final and most important part of the discussion should concentrate on the proof for the rarity or uniqueness of a condition or response to treatment and should include scientific explanations for the position you have adopted concerning the management of this particular case. It is important to describe the cause of a particular condition, why you chose a particular clinical aspect of it and how this influenced the outcome for the patient. If your approach differed from a standard treatment approach, you must describe what recommendations you would make for future patients based on your experience and what lessons can be learnt.

### **Conclusion**

Some case reports don't contain conclusions. If you do choose to include one, this should summarise your findings in one or two sentences.

### **References**

This should be created in the particular output style required by the journal to which your article has been submitted.

### **Acknowledgements**

A statement should be included mentioning informed consent. This could be e.g. "Written informed consent was obtained from the patient/their relative for publication of this report."

### **Additional information**

It can also be helpful to include details of abbreviations if these have been used. Any competing interests from financial or academic parties should also be included in this section.

### **Preparing you case report for submission**

It is advisable to read what you have written several times. This will allow you to correct any areas where the text is too verbose or if there are areas in the report that lack clarity. When the report has been edited to your satisfaction, it can be helpful to ask a colleague to read it and encourage them to give constructive feedback.

### **Submission to a Journal**

Submissions to journals can now be made electronically. The section on a journal's website signifying "instructions to authors" will indicate the journal's preferred method for submission. Each journal will have reviewers who will send comments about your case report; it may need to be edited further in view of these comments before it is ready for publication.

### **Summary of stages in preparation of background information for a case report:**

- Identify a suitable patient
- Search the literature for similar cases
- Obtain consent from the patient or their appointed guardian
- Collect information from the patient's case history, examinations and test results

### **Summary of items to include in a case report**

- Introduction
  
- Case report – history
  - examination
  - examination findings
  - investigations
  - results of investigations
  - treatment intervention used
  - outcome of treatment
  
- Discussion – why you selected this patient for your case report
  - what the literature reports about similar cases

how rare is this condition?  
what is the scientific explanation for this condition?  
what is the cause of this condition?  
why did you choose your intervention?  
how did your intervention influence the outcome for the patient?  
what are the standard interventions for this condition?  
what are your recommendations for future treatment for this condition?  
what lessons can be learned from this case report?

- Conclusion
- References
- Acknowledgements
- Additional information

Further information on case report submissions and advice for authors for the International Journal of Osteopathic Medicine can be found at:

<http://authors.elsevier.com/JournalDetail.html?PubID=705245&Precis=&popup>

Reference:

1. Brodell RT. Do more than discuss that unusual case: Write it up. *Postgraduate Medicine*. 2000; 108 (2).