

The case for case reports in the Netherlands Journal of Medicine

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INTRODUCTION

Case reports are probably one of the most accessible forms of medical literature and when well written are a joy to read. They probably reflect clinical practice most accurately and give insight into the thoughts of the internist during his/her daily work collecting clinical information and making deductions in order to reach the diagnosis. The connection to clinical practice perhaps explains why case reports are so well liked by readers. In addition, they can be very useful for establishing the right diagnosis in patients with rare diseases. By nature, a case report is also one of the first papers that a resident, as a novice inexperienced author, will write.

Despite the popularity among readers, the status of the case report ranks low on the hierarchical ladder in this age of evidence-based medicine. This may help to explain why editors often shy away from publishing case reports.¹ On the other hand, many Journals do still publish case reports and a PubMed search (<http://www.pubmed.gov>) revealed that over 200,000 articles in the medical field have been published as case reports over the last five years.

We believe in the value of a good case report in that it is educative, enticing, and even entertaining. Furthermore, and this is reflected by our mission statement, we aim to provide the practising clinician with up-to-date medicine and to inform him/her on important issues in topical health care. The Netherlands Journal of Medicine usually publishes two to three case reports per issue. The competition for case reports is rather stiff. The Journal receives many case reports for consideration and although they probably all represent hard work we have to make choices. We would like the Netherlands Journal of Medicine to be your first port of call for publishing your case report, and we want to shed some light on what we expect from our prospective authors and how we, as Editors, deal with case report submissions.

WHAT TYPES OF CASE REPORTS ARE THERE?

We have not issued any specific guidelines or given advice to prospective authors in our 'Information for authors' section and we wish to change that. Generally speaking, when selecting articles the Editorial Board mainly focuses on four different items:

- Is the science correct?
- Is the material new and will it have any impact on clinical practice or add substantially to current knowledge?
- Is the message appropriate for the practising internist?
- Has the manuscript been prepared carefully or will major revisions be required to bring it up to par with the required standards?

For case reports we delve deeper as we want to publish case reports which discuss new aspects on clinical presentation, diagnosis or treatment. These elements describe our wishes in relatively general terms and each author always points to some aspect of novelty. So, we need to obtain more detail. Others have tried to classify case reports and have come up with a classification that divides case reports into various subcategories depending on the main focus of the article (*table 1*).² We have analysed the types of case reports that were published in the Journal in 2004 and 2005. *Table 1* lists the various categories along with the number of case reports published in the Journal in this period.^{3,4} As can be seen, most case reports (40%) focused on an unusual aspect or presentation of a relatively common case. For example, while prostate cancer is a common disorder, it rarely presents with severe hypocalcaemia associated with extensive osteoblastic metastases.⁵ Frequently, case reports describe unexpected rarely reported complications of therapeutic procedures. Some 26% of case reports cover this aspect, and Stridor and Horner's syndrome after attempted right subclavian vein cannulation is a good example.⁶

Table 1. *Types of case reports published in the Journal in 2004 and 2005*

Main focus of case report	Number per category	Example reference
Rare and previously sparsely reported condition	6	7
Unusual presentation/symptom of a (common) disease	17	8
Unexpected association between two relatively uncommon symptoms/signs	2	9
Impact of one disease process on another	1	10
Unexpected event in the course of observing or treating a patient	1	11
Novel insight into pathogenesis of disease	1	12
Unexpected rarely reported complication of treatment or procedure	11	13
New and unique treatment	3	14
Honest mistakes in management	0	
Totally original condition/new disease	0	
Impact of a treatment regime of one condition on another disease	0	

WHAT TYPES OF CASE REPORT ARE WE INTERESTED IN?

While it is exciting to be the first to diagnose a patient with an aortic regurgitation murmur in endocarditis and you feel an imminent urge to run it to press, first ask yourself a set of questions.¹⁵ What is novel, original, or unique about this report? A case report is a work of science and it should contain a novel point either in the form of a new problem, a new solution or a new idea. Ideally, you should be able to make this point in a single line. Try to define why you think this case or observation is important at all. Next, you should check whether the point you want to make is in fact unique. PubMed is an excellent resource to check this out. Taking the above-mentioned example will give you numerous articles, so you might want to reconsider. Next, why is this case important and clinically relevant to the audience of the Netherlands Journal of Medicine, internists? In other words: what does it teach us? For instance, the Journal is not looking for articles on paediatric subjects, such as a case of neonatal jaundice. The facts from the report should speak for themselves. As stated by Vandenbroucke: 'The writer should lay bare his/her thought process, as crisply and pointedly as possible, because that is the only way to impress and strike a chord with the reader'.⁴

Our mailbox is well stocked with papers describing a rare manifestation of relatively common conditions. Although these case reports are welcome, we prefer case reports describing novel treatment options. Similarly, we have our

share of papers describing a complication of treatment or a procedure, but we could use those that deal with biologically plausible but unexpected associations between two relatively uncommon symptoms or signs.

On the other hand, if you have performed a thorough literature review on a case, why not consider submitting this as a mini review to the Journal? You avoid the crowded case reports box and improve your chances of getting into the Journal.

THE ANATOMY OF A CASE REPORT

While we do not aim to give an introductory writing course, we do want to provide some guidelines on how to write a case report. A case report can be broken down in several components: Title, Introduction, Case report, Discussion and References.¹⁶

Title

The title should be informative, and it is important that it contains the key elements of the case. With the title as input line you should be able to obtain optimal retrieval with electronic searching. As a test of principle, use your title as a search item on PubMed and check what you get. You should be able to get one or more references that have been included in your reference list. Lastly, it should be interesting enough to attract the reader's attention. Remember, most readers will only see your title and decide on the basis of that whether they should go on reading.

Introduction

The introduction should contain no more than 200 words. The introduction contains reference to the clear and compelling rationale for the 'uniqueness criteria' that justify publication of the work. It should describe why the case is unique. If not, does the case contain unusual elements with respect to diagnosis, prognosis or therapy? Case reports educate, and we want to see whether the author is able to establish instructive or teaching points that add value to this case. Lastly, we would like to see a line on how the case expands scientific knowledge.

Case report

The case report (300 words maximum) should give a meticulous description of the history, examination and investigations pertinent to the point the report wants to make. Do not elaborate on irrelevant details that distract from the message of the paper. Is the cause of the patient's illness clear-cut? Are there any other plausible explanations? Describe the treatment in enough detail. Have all available therapeutic options been considered? If not explain why. You should be able to describe whether the outcome is related to the treatment. If the patient would

have improved regardless of treatment, how important was that therapy? Lastly, the description of a single patient is fine, but the description of more patients that support your point is better. Case series are more convincing than a single case report.

Discussion

The discussion is the hardest part for many authors and, in our view, should be limited to 500 words. Many authors end up writing a prosaic free-floating story rather than describing the merits of the case in a concise manner. Structure improves the quality and readability of the discussion. The discussion starts by highlighting the most pertinent findings from the case. The key question here is 'Does our case provide sufficient detail and documentation to support the conclusion?' Next, explain the rationale for reporting the case. What is unusual about the case? Does it challenge prevailing knowledge, or provide an opening to novel insights into a disease pathogenesis? If you find an unexpected association first explain what you expected, and then try to explain your finding in precise terms. Is the association contrary to common thinking? If so, explain how and why the well-accepted 'truth' is challenged? The discussion on each case report should contain a thorough, if not exhaustive (your case is unique so there will only be few other cases) literature review of other similar cases. Then go on to describe how your case is different, or whether you have recognised a common pattern that can be tested in future cases. You have seen the patient and performed the literature review so you are the person to give recommendations on how things can be done differently in a similar case in the future. Finally, the conclusion should be in line with the report. Case reports do not establish cause-and-effect relationships between interventions and outcomes, but might open the door to new (testable) hypothesis.

CONCLUSION

Case reports describe practice. As such they appeal to the readers and the Editorial board would like them to remain this way. However, we feel that handing out a set of guidelines could improve the standard of case reports in the Journal. The Journal is improving and it is important that the case reports show similar improvements.¹⁷ We hope that prospective writers for the Journal will benefit from these guidelines and welcome any comments.

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REFERENCES

1. Hoffman JR. Rethinking case reports. *West J Med* 1999;170:253-4.
2. Vandenbroucke JP. Case reports in an evidence-based world. *J R Soc Med* 1999;92:159-63.
3. Chelvarajah R, Bycroft J. Writing and publishing case reports: the road to success. *Acta Neurochir (Vienna)* 2004;146:313-6.
4. Vandenbroucke JP. In defense of case reports and case series. *Ann Intern Med* 2001;134:330-4.
5. Fokkema MI, de Heide LJ, van Schelven WD, et al. Severe hypocalcaemia associated with extensive osteoblastic metastases in a patient with prostate cancer. *Neth J Med* 2005;63:34-7.
6. Van der Werf TS, Drijver Y, Stegeman CA, et al. Stridor and Horner's syndrome, weeks after attempted right subclavian vein cannulation. *Neth J Med* 2005;63:31-3.
7. Westendorp IC, Tiemessen MA, de Jong M, et al. Moraxella catarrhalis sepsis in a patient with juvenile spinal muscle atrophy. *Neth J Med* 2005;63:227-9.
8. Fokkema MI, de Heide LJ, van Schelven WD, et al. Severe hypocalcaemia associated with extensive osteoblastic metastases in a patient with prostate cancer. *Neth J Med* 2005;63:34-7.
9. Herbers AH, Keuning JJ. Staging for CLL-type non-Hodgkin's lymphoma reveals a gastrointestinal stromal tumour. *Neth J Med* 2005;63:74-5.
10. Molkenboer JF, Vos AH, Schouten HC, et al. Acute lymphoblastic leukaemia in pregnancy. *Neth J Med* 2005;63:361-3.
11. Zandberg M, de Maar EF, Hofker HS, et al. Initial cytomegalovirus prophylaxis with ganciclovir: no guarantee for prevention of late serious manifestations of CMV after solid organ transplantation. *Neth J Med* 2005;63:408-12.
12. Bovenberg SA, Pieters GF, Hofland LJ, et al. Leuprolide acetate therapy in LH-dependent Cushing's syndrome: in vivo and in vitro observations. *Neth J Med* 2004;62:456-8.
13. Van der Werf TS, Drijver Y, Stegeman CA, et al. Stridor and Horner's syndrome, weeks after attempted right subclavian vein cannulation. *Neth J Med* 2005;63:31-3.
14. Huvers F, Slappendel R, Benraad B, et al. Treatment of postoperative bleeding after fondaparinux with rFVIIa and tranexamic acid. *Neth J Med* 2005;63:184-6.
15. Wright SM, Kouroukis C. Capturing zebras: what to do with a reportable case. *Can Med Assoc J* 2000;163:429-31.
16. Khan KS, Thompson PJ. A proposal for writing and appraising case reports. *BJOG*. 2002;109:849-51.
17. Drenth JP. A watershed for the Netherlands Journal Medicine: open internet access. *Neth J Med* 2005;63:239-40.