

Is it still useful to publish case reports?

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Summary

Although the medical literature is flooded with case descriptions, it is difficult to dismiss the significant impact that a clinical observation limited to one or two patients can have. Case reports can also play a critical role in other areas such as drug safety by serving as early warning signals for adverse drug reactions. Unlike the aggregated data and statistical abstractions of clinical trials or meta-analyses, case reports reflect the real-world context of medical practice, where decisions are made patient by patient. This alignment with everyday clinical experience makes case reports particularly relatable and valuable to practicing clinicians, offering insights that resonate far beyond the confines of population-based evidence. The “Swiss Medical Weekly” wishes to participate in the dissemination of high-quality case reports. A new section entitled “Clinical reasoning” will provide a dedicated platform for well-structured case reports while upholding the journal’s high and very strict editorial standard and its Diamond Open Access model.

The medical literature is overflowing with thousands of published case reports, raising the question of whether it is still relevant to continue sharing these in our medical literature. Scientifically speaking, these case reports have very limited significance in establishing evidence-based medical and therapeutic conclusions. There is no doubt today that systematic reviews, meta-analyses and randomised studies represent the highest standards for reliably establishing universally accepted diagnostic or therapeutic approaches. Case reports or case series certainly rank low on this so-called “clinical evidence” scale. Can we, on this basis, dismiss these isolated case reports or does this overlook the unique and enduring contributions to medical knowledge?

Most of us, as clinicians, have likely published several case reports during our academic careers. These clinical observations aim to describe exceptional and sometimes complex or unknown clinical situations, whether in their presentation or in the therapeutic approach. These exceptional cases are obviously not described in randomised studies. In fact, although the medical literature is flooded with case descriptions, it is difficult to dismiss the significant impact that a clinical observation limited to one or two patients can have. A few examples can illustrate this point.

In 1922, in the “Canadian Medical Association Journal”, F. G. Banting and C. H. Best described the first administration of pancreatic extracts, namely partially purified insulin, to a 13-year-old boy dying of diabetic coma [1]. This administration of pancreatic extracts saved the life of this young patient and was likely the first case report describing insulin administration to a human. The impact of this report was extraordinarily significant worldwide and it has been cited many times. This observation had a major impact on scientific research, leading to the establishment of numerous subsequent research protocols on insulin purification, as well as its administration in thousands of published therapeutic trials. Case reports often have a reputation for being rarely cited in medical literature. The first description of cases of patients suffering from what was then a mysterious disease, AIDS, was published in 1981, immediately initiating extraordinary research to identify the virus responsible for the disease [2]. A single case description of neuropathology and Alzheimer’s disease following inoculation with amyloid-beta peptide, published in “Nature Medicine” in 2003, has been cited nearly 1800 times to date [3]. There are many examples in the literature of case reports that, at the time of their publication, likely did not anticipate the scientific impact of these descriptions.

Case reports can also play a critical role in other areas such as drug safety by serving as early warning signals for adverse drug reactions. A landmark example is the 1961 very short report by W. G. McBride in “The Lancet” [4], which first suggested a connection between thalidomide use during pregnancy and severe congenital abnormalities. This single observation led to the recognition of a global drug safety crisis and ultimately triggered major reforms in drug regulation and pharmacovigilance systems worldwide. The thalidomide tragedy underscored the necessity of rigorous post-marketing surveillance and the power of individual reports to protect public health.

In the clinical setting, physicians engage daily with individual patients, navigating the complexities of diagnosis and treatment in real time. We diagnose and treat individual patients, making decisions based on the unique presentation and progression of each case. Each case unfolds uniquely, requiring nuanced judgment, adaptability and clinical reasoning. This personalised, case-by-case approach mirrors the structure and content of a well-written case report, which often resembles the detailed clinical reasoning found in medical correspondence or doctors’ letters – formats that clinicians are both accustomed to and com-

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fortable reading. Unlike the aggregated data and statistical abstractions of clinical trials or meta-analyses, case reports reflect the real-world context of medical practice, where decisions are made patient by patient. This alignment with everyday clinical experience makes case reports particularly relatable and valuable to practising clinicians, offering insights that resonate far beyond the confines of population-based evidence. For this reason, many physicians genuinely enjoy reading good case reports, as they provide practical, relatable and often thought-provoking examples of clinical decision-making “in action”.

Given this close alignment with everyday clinical reasoning, also the writing of a case report should be encouraged. The primary benefit of describing a case is for the author. Indeed, observing a clinical case, its evolution or its complex diagnostic phase, and crystallising this observation by writing a brief scientific summary with a critical review of the literature, is a very useful exercise for the author. We have a clear memory of each of the case reports we described during our medical career, often as a mentor and guide to a young doctor in training. These case descriptions contribute to an important body of literature, although they are often rarely cited, except in the exceptional cases mentioned above. However, these descriptions can be very important even in bibliometric research to recognise the manifestation of a particular clinical situation or side effect, described uniquely or very rarely in the literature. This can provide a different perspective on patient care. In addition, case reports in specific formats focusing on how a diagnosis is established or how a situation is managed are “exercises in clinical reasoning” and have a high educational value [5]. They help authors and readers improve their diagnostic and clinical skills.

We must, however, remain very critical in the evaluation of these case reports. They must meet strict criteria, aimed not only at education and training but also at scientific rigour. It is essential that these descriptions pertain to specific, sometimes unique, clinical situations with complex diagnostic approaches. The challenge of managing and understanding a new pathophysiological mechanism, or even gaining new biological, biochemical or genetic insights, is an asset in the case description. Particularly unusual, forgotten or previously unrecognised drug side effects also fall within the realm of case reports that are useful to the medical community and provide important contributions to clinical knowledge and patient safety.

The “Swiss Medical Weekly” wishes to participate in the dissemination of high-quality case reports. To date, our author guidelines have been quite strict, leaving little room for the publication of these case reports. Considering the

significant number of case report submissions to our journal, we are pleased to introduce a new section entitled “Clinical reasoning”. This section will provide a dedicated platform for well-structured case reports while upholding the journal’s high and very strict editorial standards. The “Swiss Medical Weekly” has followed the open access model since the first Open Access declarations and initiatives. As for other types of articles, the new section will be freely accessible and even with this expansion and unlike many other journals, the “Swiss Medical Weekly” will not charge authors article processing fees. We firmly believe that Diamond Open Access is the only publication model that avoids editorial conflicts of interest. External funding for the Diamond model is still very challenging, but it enables us to publish a truly scientifically sound journal without imposing financial barriers on authors. Our journal will continue to provide the entire Swiss and international medical community unrestricted access to both the review and publication process. The editorial board of the Swiss Medical Weekly strongly supports the development of our medical trainees. Indeed, the majority of professional medical societies in Switzerland include the requirement of one or more peer-reviewed publications within their speciality training curricula. With the introduction of this new platform for case report publication, we hope to meet the ambitions of our societies while providing a meaningful opportunity for our young colleagues in training to contribute to the scientific literature.

We invite clinicians, particularly those early in their careers, to contribute thoughtfully prepared case reports that reflect the realities of medical practice and the art of diagnostic reasoning. By doing so, we aim to foster a culture of reflective learning, support academic growth and continue providing high-quality, open-access medical knowledge for the benefit of the entire medical community. We look forward to receiving these submissions!

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