## The Relevance of Case Reports in Family Medicine

Professor Michael R Kidd AM, MD, FRACGP\*

s doctors we learn something new about human existence, health and disease every single day. This is especially true for family doctors. If you think back over the past week, what did you see in your own clinical practice that made you stop and think: "This patient has taught me something new" or "I haven't seen that before" or "Today I have added to my medical knowledge".

This is why in 2007, with a group of colleagues from around the world, I founded a new medical journal, the *Journal of Medical Case Reports*. We were surprised to discover that this was the world's first international medical journal devoted to publishing case reports from all clinical disciplines. We decided to publish only those case reports that are the first of their kind to be published in the English language medical literature. Each case must add something new to medical knowledge.

We also decided to encourage our authors to include patient perspectives where the patient describes their own experience of the disorder and their treatment. And, as Sir William Osler once wrote, "The best teaching of medicine is that taught by the patient."

And we decided to publish open access, which means that the content of the journal is available free of charge through the Internet, to ensure that our case reports are easily and freely accessible to clinicians and researchers in every nation of the world.

In the five years since the launch of the journal we have published over 2,000 case reports. In 2011, case reports were downloaded from our journal's web site over 1,500,000 times.

The rationale for the journal is easy. In this era of evidence-based practice, we need practice-based evidence. The basis of this evidence is the detailed information we obtain from each person that we see in our clinics; the information about individual people that in-

\*Executive Dean of the Faculty of Health Sciences at Flinders University, Australia. Honorary Professor of General Practice, The University of Sydney. President-elect of the World Organization of Family Doctors (Wonca).

forms both our daily clinical care and clinical research.<sup>1</sup>

Research in medicine often starts with patient encounters. Well-written case reports will always be a source of inspiration for clinicians and scientists seeking new research directions.

Case reports provide important and detailed information about an individual. This information can often be lost in research studies where individual results are aggregated. Case reports can also serve as an early warning signal of the adverse effects of new medications, or the presentations of new and emerging disease. And case reports can detail findings that can shed new light on the possible pathogenesis of a disease or an adverse effect.<sup>2</sup>

Yet case reports are a neglected area for publication. This is at least partly due to the impact of Impact Factors. Case reports may not receive high numbers of citations and this drives many journals to decide not to publish case reports. Yet some of the most highly cited publications in the history of medical publishing have involved case reports, for example the first ever reports of people with AIDS published in 1981.

Case reports have the potential to contribute to research and change clinical practice. Accurate recounting of clinical experience continues to be essential to the progress of medicine. For example our journal has received a number of case reports related to patients who presented with new or re-emerging diseases, including a series of case reports from the 2009 H1N1 influenza pandemic.

Case reports also provide an opportunity for medical students and recent medical graduates to start conducting research by writing up their own clinical observations about individual patients as part of their training in evidence-based practice.

We have also received many case reports from family doctors and general practitioners. One of the most important categories of case reports from family medicine has been reports of previously unreported or unu-



sual side effects or adverse interactions involving medications. Case reports can serve as an early warning signal for the adverse effects of new medications, highlighting problems that were not uncovered in the original clinical trials of new medications. Case reports can also highlight new ideas about diseases and associations.<sup>2</sup>

Dr Iona Heath, president of the Royal College of General Practitioners recently shared with me the story of a general practitioner who missed out on the Nobel Prize, as detailed in an article published in the British Medical Journal in 1997. In 1987, Dr Trefor Roscoe, a general practitioner in the United Kingdom, saw a patient who reported that his indigestion was cured by an antibiotic, oxytetracyline (trade name Oxytet), given to treat his acne rosacea. Dr Roscoe reported in this patient's notes: "Repeat Rx Oxytet 100. Indigestion. Says oxytet cures it!" At the time he thought the patient was mistaken - in 1987 everyone knew that antibiotics did not cure indigestion. The case of his patient went unreported. What Dr Roscoe didn't know was that at around the same time on the other side of the world, Australian medical researchers Barry Marshall and Robin Warren were conducting research which demonstrated that the bacterium Helicobacter pylori was the cause of gastroduodenal disease and that it could be treated with antibiotics. And in 2005 Marshall and Warren were awarded the Nobel Prize for Medicine.

The lesson here? If you are going to contribute your

observations from your daily practice to the world's medical literature, and possibly win the Nobel Prize for Medicine, you need to write up and publish your findings.

Case reports can also be used to report medical errors. The lessons obtained from medical errors can be important in preventing similar problems for future patients. For example our journal recently published the first case report in the medical literature of acute renal failure secondary to the accidental administration of a high dose of indomethacin to a neonate.

We all know that clinical medicine is a wonderful adventure. Working with our patients we can make new discoveries every day that may serve as a source of inspiration for clinical researchers seeking ideas about new research directions. It is a motivation for us all to know that what we observe and report today may contribute to the health and well being of many other people in the future.

## **CONFLICT OF INTEREST**

Professor Michael Kidd is the Editor-in-Chief of The Journal of Medical Case Reports, published by BioMed Central: http://www.jmedicalcasere-ports.com

## REFERENCES

- Kidd M. Case reports and 21st century medicine. J Med Case Case Reports 2012 (in press).
- Kidd M, Hubbard C. Introducing Journal of Medical Case Reports. J Med Case Reports 2007 Feb 2; 1: 1.