

Do Some Patients Count More Than Others? Reporting Outcomes of the Same Patient in More Than One Study Requires Disclosure



Abstract: Clinical databases allow researchers to test multiple hypotheses. This could result in including outcomes on the same patient or patients in more than 1 study. When this occurs, it is vital for authors to clarify multiple reporting in their study methods to avoid having patients counted more than once in future systematic reviews or meta-analyses. As a caveat, primary authors should consider whether publication of multiple studies is important or whether they are simply generating “least publishable units” (LPUs, also known as salami slicing).

An aphorism in medicine and surgery is, “Nothing spoils good results like good follow-up.” The saying is ironic and cynical, reeking of the black humor that balances the reality that clinical practice does not result in 100% excellent outcomes. Like most generalizations, the maxim also contains some truth. Only by following our patients over time will we really know the results of our treatments. The good news is that in the 21st century, more and more patient outcome data are being collected. Interpretation of big data requires nuance; tracking and reporting patient outcomes offers opportunities to improve our results.¹⁻³

A risk requiring caution on the part of researchers using databases big or small is that, potentially, outcomes of the same patient or patients could be reported in more than one study. Such “double-dipping” is not a dilemma in and of itself, but a problem occurs if multiple reporting of outcomes on the same patient or patients is not disclosed in the methods of a study. Absent clarifying disclosure of multiple reporting, a single patient might then be counted twice in future systematic reviews or meta-analyses, resulting in biased and incorrect review of the literature.

For example, imagine a clinician/researcher who performed 100 hip arthroscopic surgeries and reported that 90% of the patients were satisfied at 2 years. Next, imagine that same surgeon/scientist publishing a second report on the same patients showing that 85% were satisfied at 5-year follow-up. Next, imagine that same individual reporting that of 100 hip arthroscopies he or she performed, 90% were in swimmers and 100% returned to swimming. Next, imagine that same

individual reporting that of 100 hip arthroscopies he or she performed, 75% were in golfers and 60% returned to golf.

Continuing, imagine a new researcher performing a systematic review on the results of hip arthroscopy. If the systematic reviewer did not realize that, in the aforementioned example, only 100 total patients were treated (as all 4 articles reported on the same patients), the reviewer could incorrectly synthesize in his or her review the outcomes on 100 patients (the 2-year follow-up), plus 100 patients (the 5 year follow-up), plus 90 patients (swimmers), plus 75 patients (golfers). The incorrect review would include 365 outcomes, whereas in truth, the primary researcher only had 100 outcomes to report.

Getting immediately to our point, authors using databases to report clinical outcomes must absolutely and explicitly clarify in their methods if the results of 1 or more patients included in their study have been reported in previous publications. If it is possible to provide more comprehensive detail with regard to which patients have been multiply reported, or in which previous studies, this is of enormous value. But, to repeat, authors must disclose in their study methods the fact (or even the possibility) that their research includes reporting of outcomes on a patient or patients whose result(s) have been previously reported.

A warning is that authors should avoid needlessly contributing to information overload⁴ (or padding their curriculum vitae)⁵ by reporting of “least publishable units” (i.e., LPUs) or “salami slicing.”^{6,7} This may be unethical and is always subject to interpretation. Returning to our example above, is it important (or ethical) to write a paper on return to swimming after hip arthroscopy and then write a paper on return to golf

after hip arthroscopy, and then, perhaps, return to tennis, then basketball, then skiing, then running, etc.? Or could it be more appropriate to write a single paper on return to sport where all of the information could be combined? There are no rules and regulations here, and some of us, some of the time, could have different opinions. Nevertheless, the concern is worthy of deliberation on the part of authors, as well as readers, reviewers, and editors.

In summary, outcome reporting is in the best interest of our patients and allows us to improve our results. Clinical outcomes databases, large or small, are of great value and allow us to test multiple clinical hypotheses. This may benefit from including the same patient or patients in more than one published study. However, when this occurs, it is vital for authors to clarify the facts of multiple reporting on the same patient or patients in their study methods. And authors should thoughtfully consider when publication of multiple reports is essential versus when they are merely generating LPU.

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