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Title

A decade of case reports: Are they advancing medicine?

Priority 1 (Research Category)

Clinical research (other)

Presenters

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Abstract

Context: Despite their bottom dwelling in the hierarchy of evidence, case reports continue to be a popular form of contribution to the medical literature. PubMed indexed 639,761 publications in the case report category between 2010-2019. This overload challenges clinicians to assign value and meaning to reported cases and provides ambiguous direction to learners on how to select cases to report.

Objective: To apply a typology of contribution to the literature to ten years of published case reports.

Study design and analysis: Manifest content analysis with descriptive and inferential statistical analysis

Population studied: Using PubMed, we sampled case reports published in 10 peer reviewed journals from 2010–2019. Journals included: Journal of the American Academy of Dermatology, American Journal of Emergency Medicine, Anesthesiology, Annals of Internal Medicine, Journal of the American Board of Family Medicine, Journal of Clinical Oncology, Neurology, Otolaryngology, Obstetrics and Gynecology, and Pediatrics.

Results: We identified 942 published manuscripts using the search criteria. 647 met the definition of a case report. Across journals, the form and frequency of case reports varied widely. Within the typology, 122 (18.9%) reported detection cases, representing an actual first in the medical literature. 123 (19%) reported extension cases, extending the boundaries of what is known. 395 (61.1%) reported diffusion

cases, which use a case to summarize a medical topic. 7 (1.1%) reported fascination cases, spotlighting the wonder-inducing quality of a case. Across journal types (primary care, medicine subspecialty, surgical), diffusion was the most frequent type of case report.

For impact, detection cases were cited more frequently in PubMed (mean = 4.20) than extension (mean = 3.51), diffusion (mean = 3.19), or fascination (mean = 2.43) reports.

Extension case reports were statistically more likely to explicitly identify authors as trainees (15.4%) than detection (4.9%), diffusion (7.1%), or fascination (0) reports.

Conclusion: This description of case reports in peer-reviewed literature applies a novel typology for the role and impact of case reports. This typology allows trainees, and their faculty, who are considering writing a case report to critically analyze why it is worth publishing and how they frame the presentation to contribute to the evidence base.