

CARE guidelines for case reports: explanation and elaboration document

David S. Riley^{a,*}, Melissa S. Barber^b, Gunver S. Kienle^c, Jeffrey K. Aronson^d,
Tido von Schoen-Angerer^e, Peter Tugwell^f, Helmut Kiene^g, Mark Helfand^h, Douglas G. Altmanⁱ,
Harold Sox^j, Paul G. Werthmann^g, David Moher^k, Richard A. Rison^l, Larissa Shamseer^k,
Christian A. Koch^m, Gordon H. Sunⁿ, Patrick Hanaway^o, Nancy L. Sudak^p,
Marietta Kaszkin-Bettag^q, James E. Carpenter^r, Joel J. Gagnier^{s,t}

^aIntegrative Medicine Institute, 2437A NW Overton Street, Portland, OR 97210, USA; Helfgott Research Institute, 2220 SW 1st Ave, Portland, OR 97201, USA

^bIntegrative Medicine Institute, 2437A NW Overton Street, Portland, OR 97210, USA

^cSenior Research Scientist, University of Freiburg, Fahrenbergplatz, 79085 Freiburg im Breisgau, Germany; Senior Research Scientist, Institute for Applied Epistemology and Medical Methodology at the University of Witten-Herdecke, Zechenweg 6, 79111 Freiburg im Breisgau, Germany

^dUniversity of Oxford, Nuffield Department of Primary Care Health Sciences, Radcliffe Observatory Quarter, Woodstock Road, Oxford, OX2 6GG, UK

^eDepartment of Pediatrics, Centre médical de La Chapelle, Chemin de Compostelle 7, 1212 Grand-Lancy, Genève, Switzerland; ACIM Institute, Filderklinik, Im Haberschlag 7, 70794 Filderstadt-Bonlanden, Germany

^fDepartment of Medicine University of Ottawa, 451 Smyth Rd, Ottawa, ON, Canada K1H 8M5

^gSenior Research Scientist, Institute for Applied Epistemology and Medical Methodology at the University of Witten-Herdecke, Zechenweg 6, 79111 Freiburg im Breisgau, Germany

^hDepartment of Medical Informatics and Clinical Epidemiology, 3710 SW US Veterans Hospital Rd, Portland, OR 97239, USA

ⁱUniversity of Oxford, Center for Statistics - Botnar Research Centre, Windmill Road, Oxford OX3 7LD, UK

^jProfessor Medicine and of The Dartmouth Institute, Geisel School of Medicine at Dartmouth, 31 Faraway Lane, West Lebanon, NH 03784-4401, USA

^kSenior Scientist, Ottawa Methods Centre, Ottawa Hospital Research Institute, 501 Smyth Road, Ottawa, ON, Canada K1H 8L6

^lPIH Health Hospital-Whittier, Neurology Consultants Medicine Group, University of Southern California Keck School of Medicine, 12291 Washington Blvd # 303, Whittier, CA 90606, USA

^mProfessor of Medicine, Director - Endocrinology at the University of Mississippi Medical Center, 2500 N. State Street, Jackson, MS 39216, USA

ⁿMedical Director of Inpatient Services at Rancho Los Amigos National Rehabilitation Center, 7601 Imperial Highway, Downey, CA 90242, USA

^oCenter for Functional Medicine, Cleveland Clinic, Mail Code H-18, 9500 Euclid Avenue, Cleveland, OH, 44195, USA

^pEssentia Health - Duluth, 420 East First Street, Duluth, MN 55805-1951, USA

^qDirector of Scientific Affairs - PharmaLex, Harrlachweg 6, 68163 Mannheim, Germany

^rDepartment Chair, Orthopaedic Surgery, 24 Frank Lloyd Wright Drive, Lobby A, Ann Arbor, MI 48106, USA

^sDepartment of Orthopaedic Surgery, 24 Frank Lloyd Wright Drive, Lobby A, Ann Arbor, MI 48106, USA

^tDepartment of Epidemiology, School of Public Health, 1415 Washington Heights, Ann Arbor, MI 48109-2029, USA

Accepted 27 April 2017; Published online 18 May 2017

Abstract

Background: Well-written and transparent case reports (1) reveal early signals of potential benefits, harms, and information on the use of resources; (2) provide information for clinical research and clinical practice guidelines, and (3) inform medical education. High-quality case reports are more likely when authors follow reporting guidelines. During 2011–2012, a group of clinicians, researchers, and journal editors developed recommendations for the accurate reporting of information in case reports that resulted in the CARE (Case REport) Statement and Checklist. They were presented at the 2013 International Congress on Peer Review and Biomedical Publication, have been endorsed by multiple medical journals, and translated into nine languages.

Objectives: This explanation and elaboration document has the objective to increase the use and dissemination of the CARE Checklist in writing and publishing case reports.

Funding: The 2012 CARE consensus meeting in Ann Arbor, Michigan, received funding from the Department of Orthopedic Surgery, the Office of the Executive Vice President of Research from the University of Michigan, Ann Arbor, Michigan, and Global Advances in Health and Medicine (grant number: 201210-3). CARE planning and working group meetings have been hosted by the University of Ottawa, Ottawa, CA (D.M. is supported by a University Research Chair, University of Ottawa); Integrative

Medicine Institute, Portland, Oregon; and the Institute for Applied Epistemology and Methodology at the University of Witten/Herdecke in Freiburg, Germany. No funding, direct or indirect, was received to write this article.

* Corresponding author. Tel.: +505 690-0688; fax: +503 227-3750.
E-mail address: dsriley@care-statement.org (D.S. Riley).

Article Design and Setting: Each item from the CARE Checklist is explained and accompanied by published examples. The explanations and examples in this document are designed to support the writing of high-quality case reports by authors and their critical appraisal by editors, peer reviewers, and readers.

Results and Conclusion: This article and the 2013 CARE Statement and Checklist, available from the CARE website [www.care-statement.org] and the EQUATOR Network [www.equator-network.org], are resources for improving the completeness and transparency of case reports. © 2017 Elsevier Inc. All rights reserved.

Keywords: Case report; Case study; EQUATOR network; Health research reporting guidelines; CARE guideline; Timelines; N-of-1

1. Introduction

Case reports describe a patient's medical problems and clinical management for scientific or educational purposes. Historically, case reports have been important in (1) recognizing new or rare diseases, (2) evaluating the beneficial and harmful effects of an intervention, and (3) medical education [1,2]. They comprise a significant proportion of the articles in many indexed medical journals—case report volume, indexed on EMBASE and MEDLINE, increased by 45% from 49,918 in 2000 to 72,388 in 2010 [3]. New medical report journals focusing on case reports have emerged in the past 10 years, some from publishers who have been labeled “predatory publishers” [4]. Most are open access, and others are “supplements” or “companions” to established medical journals, such as *Neurology Clinical Practice*, a companion journal to *Neurology* from the American Academy of Neurology. Table 1 is a partial list of peer-reviewed journals that explicitly accept case reports.

1.1. Medical journal—case reports table about here or as an appendix

Seminal examples published in the past 60 years illustrate how cases reported in the peer-reviewed medical literature have broadened our knowledge of emerging or existing conditions and their management. In 1961, *The Lancet* published a letter to the editor describing an increased incidence of congenital abnormalities in babies delivered of women who were given thalidomide during pregnancy as an antiemetic or sedative [5]. The Morbidity and Mortality Weekly Report published five case reports of *Pneumocystis carinii* pneumonia (PCP) in 1981 that turned out to be early signals of AIDS [6]. The *Journal of Medical Case Reports* in 2013 reported that women who suffer a stroke may have May-Thurner syndrome, a condition affecting nearly 1 in 2,000 women [7]. And in 2016, the *New England Journal of Medicine* published a report on Zika virus infection that included a case report of a patient with prolonged maternal viremia and fetal brain abnormalities—serologic evidence of infection [8].

1.2. Improving the quality of case reports

The usefulness of case reports has been limited by inconsistent and incomplete reporting. When written without reporting guidelines, they are often insufficiently rigorous [9] and fail to provide information related to

clinical management that would increase transparency and the likelihood of replication [10].

In 2011, a group of clinicians, researchers, and journal editors developed reporting guidelines for case reports following guideline development recommendations [11]. This process consisted of (1) a literature review, interviews, using a modified Delphi process to generate items for a case report checklist, (2) a consensus meeting to draft reporting guidelines for case reports, and (3) a postmeeting evaluation, finalization, and publication of the reporting guidelines for case reports [12]. The 2013 CARE Statement and Checklist were presented at the 2013 International Congress on Peer Review and Biomedical Publication, published in and endorsed by multiple medical journals, and translated into nine languages. The objective of this document is to support the publication of accurate, complete, and transparent case reports.

1.3. Using this document

Each CARE Checklist item is explained and accompanied by one or more illustrative examples to guide case report writing and their critical appraisal by editors, peer reviewers, and readers. Familiarity with reporting guidelines form part of the foundation of editorial competency and the critical appraisal of manuscripts by medical journal editors and peer reviewers [13].

This document and the CARE statement (available at www.care-statement.org) are resources to improve the quality of case reports. With the CARE Checklist as a framework, the writing of case reports continues to be an art, allowing author choices in focusing the case, sharing a patient's story in a way that appeals to readers and provides information for scientific and educational purposes.

2. The CARE Checklist

The 2013 CARE Checklist (see Fig. 1) provides a framework for writing case reports that can be adapted to include specialty-specific information.

2.1. The CARE Checklist—explanation and elaboration

In this section, each of the CARE Checklist items and subitems are explained, accompanied by examples from peer-reviewed, general, and specialty medical journals.

Download English Version:

<https://daneshyari.com/en/article/7519567>

Download Persian Version:

<https://daneshyari.com/article/7519567>

[Daneshyari.com](https://daneshyari.com)