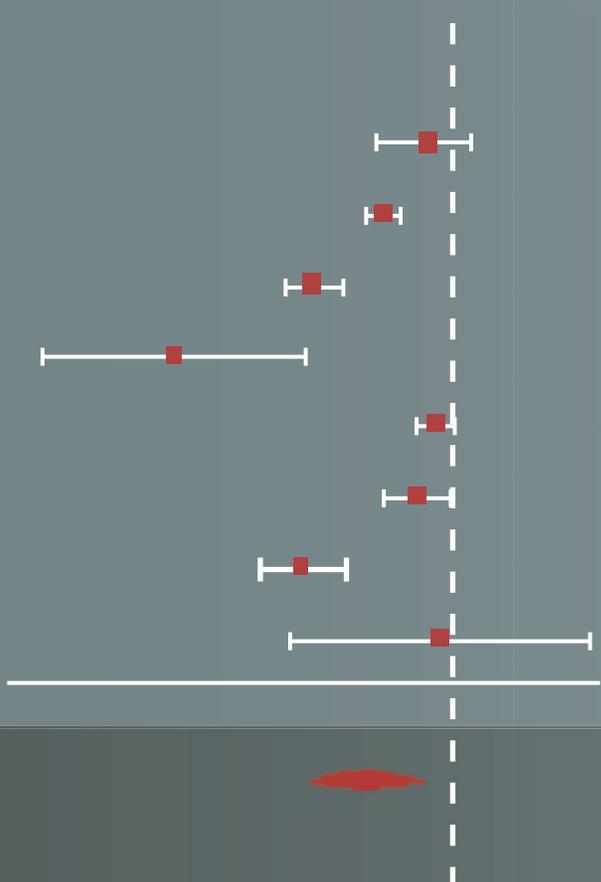




International Journal of

# Technology Assessment in Health Care



ISSN: 0266-4623

CAMBRIDGE UNIVERSITY PRESS

# International Journal of Technology Assessment in Health Care

Official Journal of Health Technology Assessment International

## Editor-in-Chief

**Wendy Babidge, BApp Sci (Hons), Ph.D., Grad Dip Bus, GAICD**

General Manager Research, Audit and Academic Surgery, Royal Australasian College of Surgeons

Adjunct Associate Professor, University of Adelaide

199 Ward St, North Adelaide South Australia 5006, Australia

Email: wendy.babidge@adam.com.au

**Aims and Scope:** The *International Journal of Technology Assessment in Health Care* has as its specific scope of interest the generation, evaluation, diffusion, and use of health care technology. It addresses the diverse audience of health care providers within medicine, public health, nursing, and the allied health professions; decision makers in government, industry, and health care organizations; and the scholarly disciplines such as ethics, economics, law, history, sociology, psychology, and engineering. The journal aims to fill the needs of those interested in the complexities of interaction between people and technology; technology as a force in social and organizational change; and technology as it is created, produced, applied, and paid for. It examines descriptively and analytically the effects of technology as perceived from the vantage point of different academic disciplines and policy-making organizations and examines methods necessary to conduct studies and evaluations of technology.

The focus of the journal is the international health care community. The experience of different countries in their encounter with health care technology, viewed comparatively, is invaluable to understanding its effects. Further, it is important to establish ties with the scholars, governments, and private institutions concerned with health care technology so that the experiences and learning of the international community in its parts can benefit the whole. The use of technology in health care has created some of the major dilemmas in society today. The journal serves as a forum for the wide range of professionals interested in the assessment of medical technology, its consequences for patients, and its impact on society.

**Publishing, Advertising, and Subscription Offices:** Cambridge University Press, One Liberty Plaza, Floor 20, New York, NY 10006, U.S.A. (for U.S.A., Canada, and Mexico); or Cambridge University Press, Journals Fulfillment Department, UPH, Shaftesbury Road, Cambridge CB2 8BS, UK (for U.K. and elsewhere).

**2019 Subscription Information:** *International Journal of Technology Assessment in Health Care* (ISSN 0266-4623) is

published bimonthly in February, April, June, August, October, and December by Cambridge University Press, One Liberty Plaza, Floor 20, New York, NY 10006; Cambridge University Press, Journals Fulfillment Department, UPH, Shaftesbury Road, Cambridge CB2 8BS, UK. Annual institutional subscription rates for Volume 35 (2019): Institutions online only US \$623.00, and online only UK and elsewhere £358.00. Individuals online only US \$361.00, and online only UK and elsewhere £203.00. Single part: US \$119.00 in the U.S.A., Canada and Mexico; UK £69.00 and elsewhere. Online only for all institutions. Print editions ceased in 2014. Back volume prices are available upon request. *International Journal of Technology Assessment in Health Care* and other Cambridge journals can be found at <http://journals.cambridge.org>

### © Cambridge University Press 2019

All rights reserved. No part of this publication may be reproduced, in any form or by any means, electronic or otherwise, without permission in writing from Cambridge University Press. Policies, request forms, and contacts are available at: <http://www.cambridge.org/rights/permissions.permission.htm>

Permission to copy (for users in the U.S.A.) is available from Copyright Clearance Center, <http://www.copyright.com>, email: [info@copyright.com](mailto:info@copyright.com).

Postmaster: Send address changes in the U.S.A. and Canada to: *International Journal of Technology Assessment in Health Care*, Journals Department, Cambridge University Press, One Liberty Plaza, Floor 20, New York, NY 10006, U.S.A. Send address changes elsewhere to: *International Journal of Technology Assessment in Health Care*, Cambridge University Press, Journals Fulfillment Department, UPH, Shaftesbury Road, Cambridge CB2 8BS, UK.

**Founding Editors:** Egon Jonsson and Stanley J. Reiser

## CONTENTS

### Perspective

- 253 Ethical challenges related to patient involvement in health technology assessment  
*Meredith Vanstone, Julia Abelson, Julia Bidonde, Kenneth Bond, Raquel Burgess, Carolyn Canfield, Lisa Schwartz and Laura Tripp*

### Commentaries

- 257 Commentary. In praise of studies that use more than one generic preference-based measure  
*David Feeny, William Furlong and George W. Torrance*
- 263 Scientific development of HTA—A proposal by the Health Technology Assessment International Scientific Development and Capacity Building Committee  
*Gert Jan van der Wilt, Alric Rütther and Rebecca Trowman*
- 266 Stories of patient involvement impact in health technology assessments: A discussion paper  
*Ann N.V. Single, Karen M. Facey, Heidi Livingstone and Aline Silveira Silva*

### Methods

- 273 Evaluation of ethical analyses in seven reports from the European Network for Health Technology Assessment  
*Perihan Elif Ekmekci and Müberra Devrim Güner*
- 280 Health technology assessment of public health interventions published 2012 to 2016: An analysis of characteristics and comparison of methods  
*Stephanie Polus, Tim Mathes, Corinna Klingler, Melanie Messer, Ansgar Gerhardus, Constance Stegbauer, Gerald Willms, Heidi Ehrenreich, Georg Marckmann and Dawid Pieper*
- 291 A non-inferiority framework for cost-effectiveness analysis  
*Xuanqian Xie, Lindsey Falk, James M. Brophy, Hong Anh Tu, Jennifer Guo, Olga Gajic-Veljanoski, Nancy Sikich, Irfan A. Dhalla and Vivian Ng*

### Assessments

- 298 Heated humidified high-flow nasal cannula for preterm infants: An updated systematic review and meta-analysis  
*Nigel Fleeman, Yenai Dundar, Prakesh S Shah and Ben NJ Shaw*
- 307 Cost-effectiveness of the transmural trauma care model (TTCM) for the rehabilitation of trauma patients  
*Suzanne H Wiertsema, Johanna M van Dongen, Edwin Geleijn, Rosalie J Huijsmans, Frank W Bloemers, Vincent de Groot and Raymond WJG Ostelo*
- 317 Cost-effectiveness evaluations of psychological therapies for schizophrenia and bipolar disorder: A systematic review  
*Gemma Elizabeth Shields, Deborah Buck, Jamie Elvidge, Karen Petra Hayhurst and Linda Mary Davies*
- 327 Context-specific economic evaluation for molecular pathology tests: An application in colorectal cancer in the west of Scotland  
*Janet Bouttell, Yun Yi Tan, David Creed, Gillian McGaffin, Neil Hawkins, Ruth McLaughlin, Graeme Smith, Paul Westwood, Nicola Williams and Janet Graham*
- 334 Clinical relevance of home monitoring of vital signs and blood glucose levels: A narrative review  
*Jessica P. Lee, Georgina Freeman, Michelle Cheng, Lauren Brown, Hector De la Hoz Siegler and John Conly*

### **Policies**

- 340 Leaving no one behind: Participatory technology appraisal as a platform for agenda setting to address disparities in access to health services in Thailand  
*Sripen Tantivess and Suradech Dounghipsirikul*
- 346 How to deal with the inevitable: Generating real-world data and using real-world evidence for HTA purposes – from theory to action  
*Wija Oortwijn, Laura Sampietro-Colom and Rebecca Trowman*
- 351 Evaluation of mobile health applications: Is regulatory policy up to the challenge?  
*Magdalena Ruth Moshi, Jacqueline Parsons, Rebecca Tooher and Tracy Merlin*

### **Addendum**

- 361 Interaction between objective performance measures and subjective user perceptions in the evaluation of medical devices: A case study—addendum  
*Matthew D. Haydock, Anubhav Mittal, Carissa F. Wilkes, David H. Lim, Elizabeth Broadbent and John A. Windsor*