



## LETTERS

## DATA SHARING ON REQUEST FOR TRIALS

# Open access to economic outcome data will help to bridge the gap between clinical trials and clinical guidelines

Joseph A Ladapo *assistant professor of population health and medicine*<sup>1</sup>, Yixin Fang *assistant professor of population health*<sup>2</sup>, Karina W Davidson *professor of behavioral medicine in medicine, cardiology, and psychiatry*<sup>3</sup>, R Scott Braithwaite *professor of population health and medicine*<sup>1</sup>

<sup>1</sup>New York University School of Medicine, 227 E 30th Street, New York, NY 10016, USA; <sup>2</sup>New York University School of Medicine, 650 First Avenue, New York, NY 10016; <sup>3</sup>Columbia University Medical Center, 622 W 168th Street, New York, NY 10032

Buoyed by a burgeoning medical culture of “appropriate use” and rising doctor awareness of the financial ruin that threatens many patients who navigate expensive treatments in pursuit of better health, medical specialist societies have grown increasingly vocal about integrating economic value in their clinical guidelines.<sup>1</sup> These encouraging developments are, however, threatened by a worsening decline in the generalisability of randomised controlled trials, a concern supported by widening differences between the characteristics of patients enrolled in trials and those of the populations targeted for intervention outside trials.<sup>2-4</sup>

Randomised clinical trials are the highest level of evidence for comparative health effectiveness, but they also provide the highest evidentiary standard for comparative cost and cost effectiveness. Although many cost effectiveness analyses are performed with sophisticated mathematical models, we believe that economic evaluations performed alongside randomised trials with individual participant data will have an increasingly important role (figure↓). However, because patients in randomised trials often differ substantially from patients in the target population the generalisability of within trial cost effectiveness can be significantly threatened by the heterogeneity of treatment effects.<sup>3</sup> By interacting with differences in generalisability and thereby distorting cost effectiveness, treatment heterogeneity is a challenge to the integration of economic analyses in specialist society guidelines and health policy.

We propose that trialists enrolling populations that differ substantially from target populations should share individual participant economic data so that researchers can determine how these differences affect cost effectiveness.<sup>5</sup> The use of economic outcomes in guideline development by specialist societies is a reasonable and encouraging step towards providing patients and doctors with transparent information about value. Addressing the pitfalls in the process promises to improve the societies’ decision making and patient care. Public dissemination of study data will greatly help.<sup>6</sup>

We thank Dr Richard Frank, whose contributions to a National Heart, Lung, and Blood Institute (NHLBI) webinar entitled “Integrating economic analysis into NIH funded research” helped to inform this work.

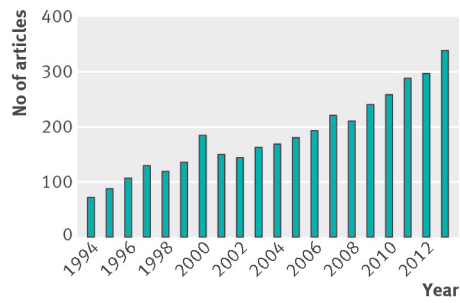
Competing interests: None declared.

- 1 Schwartz JA, Pearson SD. Cost consideration in the clinical guidance documents of physician specialty societies in the United States. *JAMA Intern Med* 2013;173:1091-7.
- 2 Sardar MR, Badri M, Prince CT, et al. Underrepresentation of women, elderly patients, and racial minorities in the randomized trials used for cardiovascular guidelines. *JAMA Intern Med* 2014;174:1868-70.
- 3 Murthy VH, Krumholz HM, Gross CP. Participation in cancer clinical trials: Race-, sex-, and age-based disparities. *JAMA* 2004;291:2720-6.
- 4 Udell JA, Wang TY, Li S, et al. Clinical trial participation after myocardial infarction in a national cardiovascular data registry. *JAMA* 2014;312:841-3.
- 5 Cole SR, Stuart EA. Generalizing evidence from randomized clinical trials to target populations: The ACTG 320 trial. *Am J Epidemiol* 2010;172:107-15.
- 6 Loder E, Groves T. The BMJ requires data sharing on request for all trials. *BMJ* 2015;350:h2373. (7 May.)

Cite this as: *BMJ* 2015;350:h3091

© BMJ Publishing Group Ltd 2015

## Figure



Numbers of publications of randomised controlled trials in PubMed that include an economic evaluation. Search terms included the medical subject headings cost-benefit analysis and randomised controlled trial