BMJ 2015;351:h4169 doi: 10.1136/bmj.h4169 (Published 25 September 2015)



ANALYSIS

Are manufacturers sharing data as promised?

The drug industry's rhetoric over transparency of clinical trial data may not be reflected in practice

Evan Mayo-Wilson assistant scientist, Center for Clinical Trials and Evidence Synthesis, Department of Epidemiology, Johns Hopkins Bloomberg School of Public Health, Baltimore, Maryland, USA, Peter Doshi assistant professor, University of Maryland School of Pharmacy, Baltimore, Kay Dickersin professor, Center for Clinical Trials and Evidence Synthesis, Department of Epidemiology, Johns Hopkins Bloomberg School of Public Health

Over the past two years drug and device manufacturers have been among the most vocal contributors to the discussion about transparency of clinical trial data. In 2013 GlaxoSmithKline (GSK) established its Clinical Study Data Request system to share participant level data, and now 11 other companies are listed as contributors to it (www.clinicalstudydatarequest.com). Other companies have developed similar systems of their own, but it is difficult to evaluate how they are working or even to decide on what basis they should be judged.

Paradoxically, despite manufacturers' publicized support for research transparency, processes for sharing data remain opaque. In the first year of operation of the Clinical Study Data Request system an "independent review panel" reported that it shared data concerning 13 projects.² In their declarations on the website dated November 2013, one panel member lists "none" under "financial interests," and another member does not list consulting fees from GSK. In their declarations related to an article about the process published in 2014, the members of this panel all reported consulting fees or indirect support from GSK (the only member who did not report personal fees is chairman of a company that has a contract with GSK), and some reported payments from other companies contributing to the site.²

At the time of writing, the Clinical Study Data Request website says that data have been provided for 58 requests, and some information is available about 64 "agreed" research proposals. The website does not explain what limitations affect the use of data for 89 requests that were either approved or "approved with conditions."

Other systems provide even fewer opportunities for public scrutiny of requests and responses. Consequently, we do not know how often requests are granted and denied, how long it takes manufacturers to reach decisions about them, how many previously hidden results have been disclosed, and to whom data have been given. We do know that few reanalyses of clinical trials have been published, and most of them have been undertaken by the authors of the original studies.³ This indicates

that relatively few results have been released to independent groups, and it is unclear whether new policies are leading to more and different types of analyses and publications.

As part of a study to compare data from multiple sources (such as journal articles and company documents) we documented one request for data. By sharing our experience we hope to stimulate discussion about successful and unsuccessful attempts to obtain unpublished information.

Our experience

On 28 February 2014 we contacted the drug company AstraZeneca and requested clinical study reports and individual participant data from trials about quetiapine (marketed as Seroquel) for bipolar depression. We continued to contact AstraZeneca until we received a response.

AstraZeneca sent its first substantive reply three months after our request, at which time the company requested further information. We responded by asking AstraZeneca how long its review would take, and we asked the company to describe the criteria it would use to make a decision. Although AstraZeneca publicly supported data sharing "on a case-by-case basis, following consistent criteria to establish if and how the information provided will be used for valid scientific purposes and to benefit patients," and though it has made further statements since our request, 5 the company declined to answer our questions about the criteria for reviewing our request.

We responded to all questions from AstraZeneca, and we provided information it requested, including our grant application and our study protocol. After nine months of correspondence AstraZeneca declined our request for data (see Appendix 1).

Rhetoric and reality

Seventeen manufacturers supported this year's Institute of Medicine report on sharing clinical trial data, including GSK

evan.mayo-wilson@jhu.edu

Extra material supplied by the authors (see http://www.bmj.com/content/351/bmj.h4169?tab=related#datasupp)

Appendix 1: Chronology of a request to AstraZeneca for data about quetiapine

Appendix 2: List of publications provided by AstraZeneca

and AstraZeneca.⁶ This year AstraZeneca also announced that it would establish a scientific review board to review requests for data; the company will review requests on a case by case basis, and only the results of recent trials will be eligible for release.⁷ These policies may indicate that manufacturers are under growing pressure from public campaigns such as AllTrials (alltrials.net) and from prominent bodies such as the World Health Organization⁸ to improve research transparency. However, panels organized by manufacturers and overseen by people who receive grants and consulting fees from manufacturers, and internal reviews conducted by the companies themselves, are at odds with the Institute of Medicine's recommendation that "an independent review panel rather than the [study] sponsor" should review requests for data.⁶

What lies ahead?

To increase transparency of trials, and to increase transparency about the process of data sharing, we encourage other researchers to share documents they have received from companies and to document publicly their unsuccessful attempts to obtain data. We hope that better understanding of these experiences will lead to improvements in the practice of data sharing.

Our experience shows that case by case review can be slow, so data may not be usable even if a request is granted (such as when funding expires). Furthermore, the time required to request data, and the time to receive a response, might have a chilling effect on efforts to obtain information. We do not know if the reason for an absence of reanalyses in the medical literature is that requests like ours are uncommon or that others have been denied. A permanent and public repository would reduce the need for case by case review.

There is a growing consensus that information about the effectiveness and safety of medical interventions should be viewed "as a community resource, much like a shared park, rather than as personal property." We believe that data from all trials should be available, not just those trials conducted after a particular date or those trials selected by manufacturers for release. A public repository—one organized by a truly independent group and managed without interference of manufacturers—could be used to share unpublished reports about trials. It will be time consuming to prepare older trials for release (such as to remove identifying information from lengthy reports), but manufacturers have already developed processes for preparing data. Releasing all trials in an organized manner might be more efficient than reviewing individual requests and releasing data piecemeal over many years.

Doing so would accomplish much of what the growing data transparency movement has taught us: reduce research waste, advance knowledge, improve the care of patients, and fulfill researchers' ethical obligations to participants who volunteer for clinical trials. 12-15

Acknowledgments: We thank our collaborators on the larger study (ME-1303-5785) funded by the Patient-Centered Outcomes Research Institute (PCORI), for which we requested additional data from AstraZeneca. Our collaborators have had an appropriate opportunity to review the submitted manuscript and have agreed to acknowledgment, but they have no responsibility for the request to AstraZeneca for quetiapine data. We particularly thank Theresa Cowley, Jeffrey Ehmsen, Nicole Fusco, Gillian Gresham, Jennifer Haythornwaite, James Heyward, Susan Hutfless, Tianjing Li, Diana Lock, Jennifer L Payne, Catalina Suarez-Cuervo, and Elizabeth Tolbert.

Competing interests: All authors are researchers on a project funded by PCORI (ME-1303-5785). In addition, EM-W is a coauthor of a guideline of the UK National Institute for Health and Care Excellence (NICE) in which quetiapine was reviewed for the treatment of bipolar disorder. PD is a co-recipient of a grant from the National Institute for Health Research to carry out a Cochrane review of neuraminidase inhibitors and also received €1500 from the European Respiratory Society in support of his travel to the society's September 2012 annual congress in Vienna, where he gave an invited talk on oseltamivir. PD is an associate editor at *The BMJ*.

Provenance and peer review: Not commissioned; peer reviewed.

The BMJ would like to know more about whether the system for sharing clinical trial data is working as promised. Readers can share their experiences at http://bit.ly/1KDhy95.

thebmj.com Editorial: Liberating the data from clinical trials (*BMJ* 2015;351:h4601, doi:10.1136/bmj.h4601); Feature: No correction, no retraction, no apology, no comment: paroxetine trial reanalysis raises questions about institutional responsibility (*BMJ* 2015;351:h4629, doi:10.1136/bmj.h4629)

- Doshi P. From promises to policies: is big pharma delivering on transparency? BMJ 2014;348:g1615.
- 2 Strom BL, Buyse M, Hughes J, Knoppers BM. Data sharing, year 1—access to data from industry-sponsored clinical trials. N Engl J Med 2014;371:2052-4.
- 3 Ebrahim S, Sohani ZN, Montoya L, et al. Reanalyses of randomized clinical trial data JAMA 2014;312:1024-32.
- 4 AstraZeneca. Transparency of trial information. 2015 (accessed 27 Mar 2015; archived at http://bit.ly/1TpjRBG).
- AstraZeneca. Disclosure commitment. 2015. http://astrazenecagrouptrials.pharmacm.
 com/Submission/Disclosure
- 6 Institute of Medicine. Sharing clinical trial data: maximizing benefits, minimizing risk. 2015.
- AstraZeneca. AstraZeneca establishes scientific review board to support clinical trial data transparency commitment [press release]. www.astrazeneca.com/Research/news/Article/ 20150319--astrazeneca-establishes-scientific-review-board.
- 8 Moorthy VS, Karam G, Vannice KS, Kienny MP. Rationale for WHO's new position calling for prompt reporting and public disclosure of interventional clinical trial results. *PLoS Med* 2015;12:e1001819.
- 9 World Health Organization. WHO statement on public disclosure of clinical trial results www.who.int/ictrp/results/reporting/en. 2015.
- 10 Drazen JM. Sharing individual patient data from clinical trials. N Engl J Med 2015;372:201-2
- 11 Hughes S, Wells K, McSorley P, Freeman A. Preparing individual patient data from clinical trials for sharing: the GlaxoSmithKline approach. *Pharm Stat* 2014;13:179-83.
- 12 Chalmers I, Bracken MB, Djulbegovic B, et al. How to increase value and reduce waste when research priorities are set. *Lancet* 2014;383:156-65.
- 13 Chan AW, Song F, Vickers A, et al. Increasing value and reducing waste: addressing inaccessible research. *Lancet* 2014;383:257-66.
- 14 Goodman S, Dickersin K. Metabias: a challenge for comparative effectiveness research. Ann Intern Med 2011;155:61-2.
- 15 Song F, Parekh S, Hooper L, et al. Dissemination and publication of research findings: an updated review of related biases. Health Technology Assess 2010;14:iii, ix-xi, 1-193.

Cite this as: BMJ 2015;351:h4169

© BMJ Publishing Group Ltd 2015