North American regulatory agencies can and should make clinical trial data publicly available

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Regulatory agencies such as Health Canada and the US Food and Drug Administration (FDA) have to date treated submissions of clinical trial data as confidential business information. Even for substances for which trials have been published, regulatory agencies possess substantial unpublished data that are not accessible to researchers, clinicians or patients. The recently passed Protecting Canadians from Unsafe Drugs Act (Vanessa's Law) allows Canada's minister of health to disclose confidential business data, but only under certain circumstances and only to certain individuals. We argue that regulatory agencies can and should make all clinical trial data publicly available.

People who participate in clinical trials or other types of studies might reasonably assume that their participation, which involves potential harms, contributes to scientific knowledge. But clinical studies can add to the medical knowledge base only when their methods and findings are publicly available. Making clinical trial data publicly available helps to protect participants in future studies, as well as people who might receive approved treatments as part of their care. Conversely, suppressing clinical trial data is wasteful and may expose patients to unnecessary risk or to ineffective treatments.¹

The Declaration of Helsinki states that researchers have a "duty" to make study results publicly available.² The evidence-based medicine movement has long advocated this position.³ The potential of data-sharing to improve patient care and advance medical science has been endorsed by the World Health Organization, the US Institute of Medicine, Pharmaceutical Research and Manufacturers of America and

the European Federation of Pharmaceutical Industries and Associations.

Yet, although regulatory agencies possess vast amounts of clinical trial data, they frequently decline requests for these data. The most common reason for refusal by Health Canada is that the request is for a third party's "confidential business information" (the third party often being a pharmaceutical company when clinical trial data are requested).⁴ Canadian law, however, allows Health Canada to disclose clinical trial data, and disclosure is also consistent with international treaties, including the North American Free Trade Agreement.⁴ Court rulings in the United States have favoured disclosure in the public interest and have also supported nondisclosure where a public benefit of disclosure was not clearly demonstrated (e.g., information about a medication that was abandoned before being marketed).⁵

Not all regulatory data need be released. Pharmaceutical companies should be able to submit technical manufacturing information to regulators without worrying about it falling into the hands of competitors. The public may benefit indirectly from the protection of such secrets if it promotes innovation. However, the public would benefit from the disclosure of clinical trial information that routinely exists in regulators' holdings, including clinical study reports, case report forms, electronic data related to individual participants, study protocols, statistical analysis plans, manuals of procedures, investigators' brochures and correspondence.

There is evidence that disclosure of previously submitted clinical trial data can change practice. Agomelatine appeared to be an effective treatment for depression until publication of a systematic review that included previously unpublished studies submitted to the European Medicines Agency.⁶ Similarly, systematic reviews had overstated oseltamivir's favourable risk-benefit ratio before a four-year campaign that brought to light data from clinical study reports and regulatory comments that are now in the public domain.⁷ The US Agency for Healthcare Research and Quality now recommends routine searches of the European Medicines

KEY POINTS

- North American regulatory agencies possess vast amounts of clinical trial data but treat them as confidential business information.
- Adoption by Health Canada and the US Food and Drug Administration of a new approach to the disclosure of clinical trial data would be consistent with these agencies' advertised shift toward greater openness.
- Clinical trial data should be fully disclosed in the interest of public health and safety, as called for by international bodies and movements.

Agency for clinical study reports and other regulatory agency databases for information on medicine approval.⁸

One regulator has already made important progress in the area of data disclosure and can serve as a model for others. After a campaign by researchers to obtain clinical trial data for anti-obesity medications, the European Medicines Agency changed its approach to disclosure.⁹ The policy now recognizes the importance of transparency: “Access to clinical data will allow third parties to verify the original analysis and conclusions, to conduct further analyses, and to examine the regulatory authority’s positions and challenge them where appropriate.”¹⁰

The new European Medicines Agency policy also recognizes some potential challenges with disclosure. Regulators can possess millions of pages of information about a single medication. Finding and de-identifying useful data can be resource intensive. Furthermore, disclosure to a third party such as a researcher or clinician does not guarantee that the information will become publicly available. Individuals or organizations (including competing pharmaceutical companies) that are granted access to data by regulatory agencies on an exclusive basis may intentionally or unintentionally misreport the information they receive, which may in turn compromise patient care. Companies that submit information to regulators may take additional steps to prevent it from being disclosed, including litigation. The costs of these manoeuvres will ultimately be borne by the public, through higher drug costs. If regulatory agencies publicly post all freedom-of-information requests they receive, as several already do, the information will be more easily accessible to others. Once clinical trial data are made available, all parties will have easy access to the same information, and original findings can be independently verified or challenged.

However, concerns over nonpublication are neither new nor unique to the sharing of detailed clinical trial data. These problems are common to all forms of research, including the original reporting of clinical trials.

Adoption of a new approach by Health Canada and the FDA to the disclosure of clinical trial data would be consistent with the advertised shift of both these agencies toward greater openness. The Government of Canada says it “is working with the national and international open government community to create greater transparency and accountability, increase citizen engagement, and drive innovation and economic opportunities through Open Data, Open Information, and Open Dialogue.”¹¹ The FDA launched its own “Transparency Initiative” in 2009 as an

“agency-wide effort to open the doors of the agency and promote innovation, in a manner compatible with the agency goal of appropriately protecting confidential information.”¹²

Despite these public endorsements of transparency, Health Canada and the FDA are out of step with the global movement advocating transparency of clinical trial data. Failing to disclose clinical trial data publicly supports unethical research conduct.³ Any legal hurdles to disclosure that might exist — if any truly do exist — are outdated and must be removed or bypassed. The onus is now on Health Canada and the FDA to either justify their ongoing secrecy with regard to clinical trial data or join the transparency movement by supporting maximal public access to clinical trial data.

References

1. Chan AW, Song F, Vickers A, et al. Increasing value and reducing waste: addressing inaccessible research. *Lancet* 2014;383:257-66.
2. World Medical Association. World Medical Association Declaration of Helsinki: ethical principles for medical research involving human subjects. *JAMA* 2013;310:2191-4.
3. Chalmers I. Underreporting research is scientific misconduct. *JAMA* 1990;263:1405-8.
4. Herder M. Unlocking Health Canada’s cache of trade secrets: mandatory disclosure of clinical trial results. *CMAJ* 2012;184:194-9.
5. Kesselheim AS, Mello MM. Confidentiality laws and secrecy in medical research: improving public access to data on drug safety. *Health Aff (Millwood)* 2007;26:483-91.
6. Koesters M, Guaiana G, Cipriani A, et al. Agomelatine efficacy and acceptability revisited: systematic review and meta-analysis of published and unpublished randomised trials. *Br J Psychiatry* 2013;203:179-87.
7. Jefferson T, Jones M, Doshi P, et al. Oseltamivir for influenza in adults and children: systematic review of clinical study reports and summary of regulatory comments. *BMJ* 2014;348:g2545.
8. *Methods guide for effectiveness and comparative effectiveness review*. Rockville (MD): Agency for Healthcare Research and Quality; 2014. Available: www.effectivehealthcare.ahrq.gov/ehc/products/60/318/CER-Methods-Guide-140109.pdf (accessed 2015 Sept. 22).
9. Gotzsche PC, Jorgensen AW. Opening up data at the European Medicines Agency. *BMJ* 2011;342:1184-6.
10. European Medicines Agency policy on publication of clinical data for medicinal products for human use. Policy/0070. London: European Medicines Agency; 2015. Available: www.ema.europa.eu/docs/en_GB/document_library/Other/2014/10/WC500174796.pdf (accessed 2015 Sept. 22).
11. Open government [homepage]. Ottawa: Government of Canada; 2013. Available: <http://open.canada.ca/en> (accessed 2015 June 12).
12. About FDA: transparency [web page]. Silver Spring (MD): US Food and Drug Administration; 2015. Available: www.fda.gov/AboutFDA/Transparency/ (accessed 2015 Apr. 28).

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