

Communicating the results of clinical research: Data and implications

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The Question

- When and how should investigators communicate the results of their research to study participants?

Some definitions

- **Aggregate Results**
 - Aggregate conclusions summarizing study findings
- **Individual Results**
 - Research findings relevant to particular participants.
 - Individual results are not "incidental findings!"

No regulatory help...

- From 45 CFR 46, FDA.

If you want something done, do it yourself?

- 30 national and international policies and guidelines concerning the duty to return research results, of which 21 were published in the last decade.*
- Stipulate that aggregate results should be provided to participants after a study's conclusion out of respect and gratitude for their contribution to the research.

*Knoppers BM, Joly Y, Simard J, Durocher F. The emergence of an ethical duty to disclose genetic research results: international perspectives. *Eur J Hum Genet.* 2006;14(11):1170-8.

The problem

- Most policies and commentaries on communication of results do not adequately take into account ethically relevant available data, or recognize the lack thereof.

Like what?

- Impact of disclosure on participants
 - Positive
 - Increased surveillance, better care, increased autonomy, happier?
 - Negative
 - Anxiety, false reassurance, unnecessary interventions, discrimination?
- Desire of participants to know individual research results
 - Plus/minus

Anything else?

- Cost of disclosure to researchers
 - Time, money, CLIA?
- Impact of disclosure on research enterprise
 - Trust, enrollment, perception

Literature review*

- Review of available data on:
 - Participants' desire for communication of results
 - Investigators' support for communication of results
 - Current communication practices
 - Consequences of communicating research results for
 - Participants
 - Investigators
 - Research enterprise

*Shalowitz et al. *PLoS Medicine* 2008. 5(5):e91

Search methodology

- Medline, Cochrane Library searches
- Manuscript references*

General characteristics

- 28 studies
 - 10 in US
 - 9 in UK
 - 4 in Canada
 - 1 in France, 1 in Sweden
 - 3 multinational
- 22 quantitative, 6 qualitative
- Sample size ranged from 13 - 8941
- 12 involved cancer research or participants
- 7 involved genetics research

Participants' attitudes towards disclosure

- 18 studies
 - 9 aggregate, 8 individual, 1 both
- Median of 90% of participants wanted to receive study results (range 20-100%)
 - (14/18 studies reporting percentages)
- Reasons for wanting results include
 - Clinical significance
 - Respect for participants
 - Raising public awareness
 - Wender phenomenon

Participants' attitudes towards disclosure

- Most participants would want (and were satisfied with) written communication of study results with phone number for further questions.
- Some mixed experience with language level in written communications.

Investigators' attitudes towards disclosure

- 5 studies
 - 4 aggregate, 1 individual
- Strong support in 4 trials (69%, 69%, 75%, 79%)
 - 5th trial...
- 95% of 77 Canadian REB chairs support making research results available to participants

Investigators' disclosure practices

- 6 studies
 - 4 aggregate, 1 individual, 1 both
- Communication of research results still represents the exception, rather than the rule
- Some examples:
 - 5/150 institutions surveyed had formal mechanism
 - 3/180 consent forms indicated availability of results
 - 9/22 REBs had policies regarding communication of research results

Impact on participants

- 8 studies (all aggregate results)
- 7/8 reported negative psychological consequences
- 6/8 reported positive psychological consequences

Impact on participants

- Schulz et al*
 - Risk of 2nd cancer in retinoblastoma survivors
 - ~1/4 reported feeling "very" to "extremely" frightened, anxious or sad
 - Only 1.4% would have preferred not to receive results
- Buchwald et al†
 - Ileal bypass for coronary artery disease prevention
 - Significant increase in perceived emotional QOL after disclosure of results

* *Med Pediatr Oncol* 2003, 41: 36-43

† *Control Clin Trials* 1993, 14: 500-510

Take-home points: Impact on participants

- Reaction to communicated results is likely to be mixed. (Genetic counseling may help, where appropriate).
- *****Vast majority of participants report feeling that it was important to receive study results, despite potentially negative emotional impact
- May be psychological benefit to communicating results

Impact on investigators

- Dinnett et al*
 - Expenses associated with communicating treatment allocation and lipid profiles to participants included:
 - Preparation, printing and distribution of letters
 - Salary support
 - 21 phone calls received after unblinding 1391 participants

*Clin. Trials 2005. 2:254-259

Impact on research enterprise

- Buchwald et al show trends (p-values between 0.09 and 0.13) indicating increases in 726 participants'
 - satisfaction with their decision to enroll
 - satisfaction with randomization allocation and
 - likelihood of advising others to join a research study after communication of aggregate study results

So what?

- Lessons from occupational health literature
- Fears over significant harms may often be unsubstantiated
 - Participants want results anyway
- Costs and effects on research as a whole are not known.
- 16 of 28 studies involved cancer or genetics research.
 - Not as much is known about other clinical areas, or socio-behavioral research.

Bottom Line

- Investigators should presumptively *offer* aggregate results, and some individual results.

Ethics Summary

- Respect for participants as more than a means to an end (in this case, research data).
- Clinical research is impossible without the voluntary contributions of research participants.
- Responding to requests allows participants access to information (often about themselves) that they helped generate.
- Particularly significant data may require investigators to proactively offer results.

Ethics Summary

- Burden is therefore on investigators to justify withholding research results.
- IRBs should, with investigators, consider the data the research is likely to generate and ensure that results will be communicated accurately and understandably.
- Informed consent should *not* be used to disclaim investigators' ethical responsibilities.

Planning for Disclosure

- In the protocol:
 - Plan for communicating aggregate results
 - Discussion of whether requests for individual results are likely
 - Plan for responding to individual requests (e.g. will counseling be used?)
 - Discussion of whether requests for individual results should be invited.

Planning for Disclosure

- In the consent document:
 - Statement that aggregate results will be communicated to participants at the conclusion of the study (and how to opt in/out),
 - General statement that investigators will discuss individual results with participants upon request, and
 - Statement(s) regarding the generation of specific meaningful results that will be available to participants upon request (if necessary).

Questions?
