



Harms and Benefits in Clinical Innovation

Bioethics of clinical innovation and unproven methods

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Clinical innovation and unproven methods

- Medical interventions that deviate significantly from standard medical practice
- No proven method available
- Typically applied as a “last resort”
- The primary purpose is to benefit the patient (save life, alleviate suffering)
- Outside clinical trials

- But, is it nonetheless research?



Research or therapy?

- The primary aim of research is to produce generalizable knowledge
- The primary aim of therapy is to benefit the patient
- Does clinical innovation blur the line between research and therapy? Is it in a gray area between research and clinical practice?
- Not a grey area, but maybe a false dichotomy?
- Clinical innovation as a third category, distinct from both therapy and research but with features from both
- Clinical innovation should be regulated according to the potential for harm, not by forcing it into either clinical context or research context



The permissive approach

- Clinical innovation is therapy and not research, therefore it should be regulated more like clinical practice than research.
- Example: WMA Declaration of Helsinki



WMA Declaration of Helsinki

Unproven Interventions in Clinical Practice

37. In the treatment of an individual patient, where proven interventions do not exist or other known interventions have been ineffective, the physician, after seeking expert advice, with **informed consent** from the patient or a legally authorised representative, may use an unproven intervention if **in the physician's judgement** it offers hope of saving life, re-establishing health or alleviating suffering. This intervention should subsequently be made the object of **research**, designed to evaluate its safety and efficacy. In all cases, new information must be recorded and, where appropriate, made publicly available.



The permissive approach

- Clinical innovation is therapy and not research, therefore it should be regulated more like clinical practice than research.
- Example: WMA Declaration of Helsinki
- The autonomy of the patient and the physician must be respected
- Regulation should not prevent patients' timely access to potentially life-saving unproven methods
- Clinical freedom



Problems with the permissive approach

- Uncertainty about efficacy and safety possibly greater than in research
- Potential for harm
 - Sometimes there is a very low likelihood of benefit combined with significant additional suffering at the end of life
- Clinician bias and conflicts of interest
- Patient bias, “therapeutic misconception”
- Patient may be in a desperate situation, vulnerable
- Potential for exploitation
- Potential for research avoiding ethical oversight



A protective approach

- Written informed consent
- Review by a research ethics committee or a similar independent institutional body
 - Expedited approval in urgent cases
 - Retrospective review in emergency cases
 - Chair's approvals where risks or innovative aspects are minimal
- Implementation and oversight
 - Producing regulation aiming to protect patients while promoting clinical innovation is not enough
 - Implementation must be robust
 - Oversight must be meaningful



Conclusion

- Clinical innovation should be regulated as a distinct activity, with a focus on potential harm and protecting patients.
- Proper informed consent is essential, but respect for autonomy should not carry most of the moral weight.
- Independent review must be performed, either by a research ethics committee or other competent and independent, institutional body.
- Regulation must be robustly implemented and provide meaningful oversight.



Bibliography

- Arnason, G. (forthcoming). Regulating clinical innovation: Trachea transplants and tissue engineering. *American Journal of Bioethics*. doi: 10.1080/15265161.2019.1602179
- Borysowski, J., H.-J. Ehni, A. Górski. 2017. Ethics review in compassionate use. *BMC medicine* 15(1): 136–142.
- Borysowski, J., H.-J. Ehni, A. Górski. 2019. Ethics codes and use of new and innovative drugs. *British journal of clinical pharmacology* 85(3): 501–507.
- Chapman, Carolyn Riley, Kenneth I. Moch, Andrew McFadyen, Lisa Kearns, Tom Watson, Pat Furlong & Alison Bateman-House. 2019. What compassionate use means for gene therapies. *Nature Biotechnology* 37: 352–355. <https://www.nature.com/articles/s41587-019-0081-7>; <https://doi.org/10.1038/s41587-019-0081-7>.
- Earl, J. (forthcoming). Innovative Practice, Clinical Research, and the Ethical Advancement of Medicine. *American Journal of Bioethics*.
- Helgesson, G. 2019. Can and should the research–therapy distinction be maintained? Reflections in the light of innovative last-resort treatment. *Research Ethics* 15(2), doi: 10.1177/1747016119835461.
- King, N.M. 2001. The line between clinical innovation and human experimentation. *Seton Hall Law Review* 32: 573–582.
- Macneill, P. U. 2009. Regulating Experimentation in Research and Medical Practice. In H. Kuhse and P. Singer (eds.): *A Companion to Bioethics*, pp. 469–486.
- National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research. 1978. *The Belmont Report: Ethical principles and guidelines for the protection of human subjects of research*, DHEW publication no. (OS) 78-0012. Washington, D.C.: GPO.
- Nuffield Council on Bioethics. 2018. Patient access to experimental treatments. <http://nuffieldbioethics.org/project/briefing-notes/experimental-treatments>
- World Medical Association. 2013. WMA Declaration of Helsinki – Ethical Principles For Medical Research Involving Human Subjects. <https://www.wma.net/policies-post/wma-declaration-of-helsinki-ethical-principles-for-medical-research-involving-human-subjects/>



Thank you.

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