

Human/Animal Research

Principles of Human Subjects Protection

There are three basic principles for the treatment of human subjects: autonomy, beneficence, and justice. These approximately correspond to the operational need for

- informed consent of subjects,
- reasonable ratios of benefits to risks, and
- equitable selection procedures and treatment.

Other concerns include:

- privacy/confidentiality concerns
- a plan for dealing with adverse effects
- the need to studies compare only treatments that are genuinely believed to be equally likely to have success
- Vulnerable populations must receive special attention to assure the appropriate application of these principles.

All human subjects research must be approved by the Institutional Review Board (IRB).

From http://www.research.umn.edu/ethics/curriculum/human_subjects.html.

Case Study At a residential treatment center for persons with mental retardation, lithium is frequently used to treat aggressive and self-injurious adolescents. However, this use of the drug has never been systematically tested on this population. Investigators propose a placebo-control experimental design but some staff members believe this is depriving patients of an established treatment.

Consider how the given principles might be applied in this case.

Animal Research There are three guidelines for animal research:

- reduction in the numbers of animals used,
- refinement of techniques and procedures to reduce pain and distress, and
- replacement of conscious living higher animals with insentient material.

All animal research must be approved by the Institutional Animal Care and Use Committee (IACUC).

From “On Being a Scientist: A Guide to Responsible Conduct in Research: Third Edition”, by National Academy of Sciences.

Case Study: A researcher comes to you with two competing designs to test two pain relief medications in dogs. Dogs are given the medication and then poked with a electrical simulation. In one design, each dog gets both medications and is tested twice. In the other design, each dog only gets one medication and so is test only once. What principles come into play?

Name: _____

What principle for animal/human research was new or most interesting to you? Describe what you learned about it.
