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## Health Care Around the World

### Clinical Trials

One of the greatest advances in medicine was the introduction of a new research technique in the mid-1950s called the controlled clinical trial, which is used to determine if new drugs and other treatments are safe and effective. In the controlled clinical trial, one group of patients, the treatment group, receives the new drug or new treatment. Another group, the control group, is given an inactive pill (a placebo) or the best standard treatment. Researchers then compare the two groups over a period of time. The data collected is put through rigorous statistical techniques to determine whether the new treatment is safer and more effective than standard therapy or no treatment.

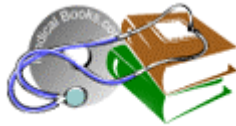
Most clinical trials are conducted on a blind or double-blind basis. In a blind trial, patients do not know whether they receive the new drug or a placebo. In a double-blind trial, neither patients nor physicians know who is receiving the new treatment. This secrecy is important because patients who know they are taking a powerful new drug may expect to feel better and report improvement to doctors. Researchers who know that a patient is receiving the test treatment may also see improvements that really do not exist.

Clinical trials usually are randomized. Researchers put patients into the treatment group or control group at random. This helps to assure that neither group contains an excess of patients with severe disease. A drug may appear more effective if the treatment group were packed with patients who had only mild symptoms.

The results of clinical trials are subjected to peer review. Researchers publish their results in scientific journals or present them to an audience of other scientists, who are their peers. This gives scientists not involved in the research a chance to spot potential errors.

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