DOWNLOAD PDF THE MEANING OF MEDICAL RESEARCH.

Chapter 1 : What is Research? Definition and steps of the scientific method

Freebase (/ 0 votes) Rate this definition. Medical research. Biomedical research, in general simply known as medical research, is the basic research, applied research, or translational research conducted to aid and support the body of knowledge in the field of medicine.

English Walter Reed authored these informed consent documents in for his research on yellow fever Informed consent is a technical term first used by attorney, Paul G. Gebhard, in a medical malpractice United States court case in The patient has multiple choices and is not compelled to choose a particular one. The consent includes giving permission. These practices are part of what constitutes informed consent, and their history is the history of informed consent. It advises that physicians conceal most information from patients to give the patients the best care. He traced his ideas to the Hippocratic Oath. Army Yellow Fever Commission in Cuba that determined mosquitoes were the vector for yellow fever transmission. His earliest experiments were probably done without formal documentation of informed consent. In later experiments he obtained support from appropriate military and administrative authorities. In it he describes his research into male homosexual acts. In the experiment Milgram had an authority figure order research participants to commit a disturbing act of harming another person. Southam used HeLa cells to inject into cancer patients and Ohio State Penitentiary inmates without informed consent to determine if people could become immune to cancer and if cancer could be transmitted. The doctrine of informed consent also has significant implications for medical trials of medications, devices, or procedures. Requirements of the professional[edit] Until in the United Kingdom and in countries such as Malaysia and Singapore , informed consent in medical procedures requires proof as to the standard of care to expect as a recognised standard of acceptable professional practice the Bolam Test , that is, what risks would a medical professional usually disclose in the circumstances see Loss of right in English law. Arguably, this is "sufficient consent" rather than "informed consent. This moves away from the concept of a reasonable physician and instead uses the standard of a reasonable patient , and what risks an individual would attach significance to. Medicine in the United States, Australia, and Canada also takes this patient-centric approach to "informed consent. This approach combines an objective a hypothetical reasonable patient and subjective this particular patient approach. The doctrine of informed consent should be contrasted with the general doctrine of medical consent, which applies to assault or battery. The consent standard here is only that the person understands, in general terms, the nature of and purpose of the intended intervention. As the higher standard of informed consent applies to negligence, not battery, the other elements of negligence must be made out. Significantly, causation must be shown: That had the individual been made aware of the risk he would not have proceeded with the operation or perhaps with that surgeon. Optimal establishment of an informed consent requires adaptation to cultural or other individual factors of the patient. However, reliance on a signed form should not undermine the basis of the doctrine in giving the patient an opportunity to weigh and respond to the risk. In one British case, a doctor performing routine surgery on a woman noticed that she had cancerous tissue in her womb. The council stated that the woman should have been informed of her condition, and allowed to make her own decision. Obtaining informed consents[edit] To capture and manage informed consents, hospital management systems typically use paper-based consent forms which are scanned and stored in a document handling system after obtaining the necessary signatures. Hospital systems and research organizations are adopting an electronic way of capturing informed consents to enable indexing, to improve comprehension, search and retrieval of consent data, thus enhancing the ability to honor to patient intent and identify willing research participants. In common law jurisdictions, adults are presumed competent to consent. This presumption can be rebutted, for instance, in circumstances of mental illness or other incompetence. This may be prescribed in legislation or based on a common-law standard of inability to understand the nature of the procedure. In cases of incompetent adults, a health care proxy makes medical decisions. In some jurisdictions e. In other jurisdictions e. Deception[edit] Research involving deception is controversial given the requirement for informed consent. Deception typically arises in social psychology, when researching a particular psychological process requires that investigators deceive subjects. For example,

in the Milgram experiment , researchers wanted to determine the willingness of participants to obey authority figures despite their personal conscientious objections. They had authority figures demand that participants deliver what they thought was an electric shock to another research participant. For the study to succeed, it was necessary to deceive the participants so they believed that the subject was a peer and that their electric shocks caused the peer actual pain. Nonetheless, research involving deception prevents subjects from exercising their basic right of autonomous informed decision-making and conflicts with the ethical principle of respect for persons. Moreover, the research should bear no potential harm to the subject as an outcome of deception, either physical pain or emotional distress. Finally, the code requires a debriefing session in which the experimenter both tells the subject about the deception and gives subject the option of withdrawing the data. Other countries with such laws e. Germany require that the information giver be properly certified to make sure that no abortion is carried out for the financial gain of the abortion provider and to ensure that the decision to have an abortion is not swayed by any form of incentive. This "consent by proxy" usually works reasonably well, but can lead to ethical dilemmas when the judgment of the parents or guardians and the medical professional differ with regard to what constitutes appropriate decisions "in the best interest of the child". Children who are legally emancipated , and certain situations such as decisions regarding sexually transmitted diseases or pregnancy, or for unemancipated minors who are deemed to have medical decision making capacity, may be able to provide consent without the need for parental permission depending on the laws of the jurisdiction the child lives in. The American Academy of Pediatrics encourages medical professionals also to seek the assent of older children and adolescents by providing age appropriate information to these children to help empower them in the decision making process. The only effective way to establish normal patterns of growth and metabolism is to do research on infants and young children. When addressing the issue of informed consent with children, the primary response is parental consent. This is valid, although only legal guardians are able to consent for a child, not adult siblings. For example, emancipated minors may consent to medical treatment, and minors can also consent in an emergency. Informed consent is documented by means of a written, signed, and dated informed consent form. Nowadays, medical research is overseen by an ethics committee that also oversees the informed consent process. As the medical guidelines established in the Nuremberg Code were imported into the ethical guidelines for the social sciences , informed consent became a common part of the research procedure. Here, research often involves low or no risk for participants, unlike in many medical experiments. Second, the mere knowledge that they participate in a study can cause people to alter their behavior, as in the Hawthorne Effect: List exemplifies the potential dilemma that can result: This is commonly done after weighting the risk to study participants versus the benefit to society and whether participants are present in the study out of their own wish and treated fairly. The birth of new online media, such as social media, has complicated the idea of informed consent. In an online environment people pay little attention to Terms of Use agreements and can subject themselves to research without thorough knowledge. This issue came to the public light following a study conducted by Facebook Inc. The study then analyzed if the users status updates changed during the different conditions. The study was published in the Proceedings of the National Academy of Sciences. The lack of informed consent led to outrage among many researchers and users. However, supports of Facebook claim that Facebook details that they have the right to use information for research in their terms of use. Others pointed out that this specific study is not along but that news organizations constantly try out different headlines using algorithms to elicit emotions and garner clicks or Facebook shares. For example, coverage of University of California UC medical school faculty members has included news of ongoing corporate payments to researchers and practitioners from companies that market and produce the very devices and treatments they recommend to patients.

Chapter 2 : What does medical research mean?

research the systematic, rigorous investigation of a situation or problem in order to generate new knowledge or validate existing knowledge. Research in health care takes.

Please update this article to reflect recent events or newly available information. August Research funding in many countries derives from research bodies and private organizations which distribute money for equipment, salaries, and research expenses. In the United Kingdom , funding bodies such as the Medical Research Council derive their assets from UK tax payers, and distribute revenues to institutions by competitive research grants. These funders are attempting to maximize their return on investment in public health. From to , NIH support of biomedical research increased from 11 billion to 27 billion [7] Despite the jump in federal spending, advancements measured by citations to publications and the number of drugs passed by the FDA remained stagnant over the same time span. The relationship between industry and government-funded research in the US has seen great movement over the years. The Bayh Dole Act was passed by Congress to foster a more constructive relationship between the collaboration of government and industry funded biomedical research. The Bayh Doyle Act gave private corporations the option of applying for government funded grants for biomedical research which in turn allowed the private corporations to license the technology. In congress passed the Pure Food and Drugs Act of In the pharmaceutical industry patents are typically granted for a year period of time, and most patent applications are submitted during the early stages of the product development. After a sharp decline of new drugs entering the US market following the Kefauver-Harris amendments economist Sam Petlzman concluded that cost of loss of innovation was greater than the savings recognized by consumers no longer purchasing ineffective drugs. A fear that exists wherein a project is funded by industry is that firms might negate informing the public of negative effects to better promote their product. This publication included 37 different studies that met specific criteria to determine whether or not an academic institution or scientific investigator funded by industry had engaged in behavior that could be deduced to be a conflict of interest in the field of biomedical research. History[edit] The earliest narrative describing a medical trial is found in the Book of Daniel , which says that Babylonian king Nebuchadnezzar ordered youths of royal blood to eat only red meat and wine for three years, while another group of youths ate only beans and water. At the experiment endpoint, the trial accomplished its prerogative: In , Vannevar Bush said that biomedical scientific research was "the pacemaker of technological progress", an idea which contributed to the initiative to found the National Institutes of Health NIH in , a historical benchmark that marked the beginning of a near century substantial investment in biomedical research. Innovations such as the polio vaccine, antibiotics and antipsychotic agents, developed in the early years of the NIH lead to social and political support of the agency. Political initiatives in the early s lead to a doubling of NIH funding, spurring an era of great scientific progress. To date only two-thirds of published drug trial findings have results that can be re-produced, [22] which raises concerns from a US regulatory standpoint where great investment has been made in research ethics and standards, yet trial results remain inconsistent. Federal agencies have called upon greater regulation to address these problems; a spokesman from the National Institute of Neurological Disorders and Stroke, an agency of the NIH, stated that there is "widespread poor reporting of experimental design in articles and grant applications, that animal research should follow a core set of research parameters, and that a concerted effort by all stakeholders is needed to disseminate best reporting practices and put them into practice". Data specifically on biomedical research funding from federal sources is made publicly available by the National Health Expenditure Accounts NHEA , data on health services research, approximately 0. National regulatory authorities are appointed in almost every country worldwide to oversee and monitor medical research, such as for the development and distribution of new drugs. The World Medical Association develops the ethical standards for the medical profession, involved in medical research. The most fundamental of them is the Declaration of Helsinki. This is why treatment of a particular disease in one country may not be allowed, but is in another. Flaws and vulnerabilities[edit] A major flaw and vulnerability in biomedical research appears to be the hypercompetition for the resources and positions that are required to

conduct science. The competition seems to suppress the creativity, cooperation, risk-taking, and original thinking required to make fundamental discoveries.

Chapter 3 : Informed consent - Wikipedia

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Chapter 4 : Research | Definition of Research by Merriam-Webster

It was announced earlier that the Abbott government will be doing some hefty investment into medical research, amounting to a $20 billion Medical Research Future Fund (the Fund) to keep Australia at the forefront of medical research.

Chapter 5 : The meaning of author order in medical research.

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Chapter 6 : Understanding Medical Research: MedlinePlus

Medical Research Council: In the United Kingdom (UK) and some Commonwealth countries, MRC stands for the Medical Research Council which serves more or less as the counterpart of the National Institutes of Health (NIH) in the United States, at least in playing the important role of funding extramural biomedical research.

Chapter 7 : What is Clinical Research?

The meaning of author order in medical research. Baerlocher MO(1), Newton M, Gautam T, Tomlinson G, Detsky AS. Author information: (1)University of Toronto Radiology Residency Training Program, University of Toronto, Toronto, Canada.

Chapter 8 : Definition of Clinical Research | Grant-making Process | Doris Duke Charitable Foundation

It seems to happen almost every day - you hear about the results of a new medical research study. Sometimes the results of one study seem to disagree with the results of another study.

Chapter 9 : Medical research - Wikipedia

Example areas in basic medical research include cellular and molecular biology, medical genetics, immunology, neuroscience, and blog.quintoapp.comchers, mainly in universities or government-funded research institutes, aim to establish an understanding of the cellular, molecular and physiological mechanisms of human health and disease.