Research Advisory Council

Research Ethics Committee
Guidelines & Policies Manual

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Section I

International Ethical Guidelines on Biomedical Research

The Nuremberg Code (1947)

1. The voluntary consent of the human subject is absolutely essential.

   - This means that the person involved should have legal capacity to give consent; should be so situated as to be able to exercise free power of choice, without the intervention of any element of force, fraud, deceit, duress, over-reaching, or other ulterior form of constraint or coercion; and should have sufficient knowledge and comprehension of the elements of the subject matter involved as to enable him to make an understanding and enlightened decision. This latter element requires that before the acceptance of an affirmative decision by the experimental subject there should be made known to him the nature, duration, and purpose of the experiment; the method and means by which it is to be conducted; all inconveniences and hazards reasonably to be expected; and the effects upon his health or person which may possibly come from his participation in the experiment.
   - The duty and responsibility for ascertaining the quality of the consent rests upon each individual who initiates, directs or engages in the experiment. It is a personal duty and responsibility which may not be delegated to another with impunity.

2. The experiment should be such as to yield fruitful results for the good of society, unprocurable by other methods or means of study, and not random and unnecessary in nature.

3. The experiment should be so designed and based on the results of animal experimentation and knowledge of the natural history of the disease or other problem under study that the anticipated results will justify the performance of the experiment.

4. The experiment should be so conducted as to avoid all unnecessary physical and mental suffering and injury.

5. No experiment should be conducted where there is an a priori reason to believe that death or disabling injury will occur; except, perhaps, in those experiments where the experimental physicians also serve as subjects.

6. The degree of risk to be taken should never exceed that determined by the humanitarian importance of the problem to be solved by the experiment.

7. Proper preparations should be made and adequate facilities provided to protect the experimental subject against even remote possibilities of injury, disability, or death.

8. The experiment should be conducted only by scientifically qualified persons. The highest degree of skill and care should be required through all stages of the experiment of those who conduct or engage in the experiment.

9. During the course of the experiment the human subject should be at liberty to bring the experiment to an end if he has reached the physical or mental state where continuation of the experiment seemed to him to be impossible.

10. During the course of the experiment the scientist in charge must be prepared to terminate the experiment at any stage, if he has probably [sic] cause to believe, in the exercise of the good faith, superior skill and careful judgment required of him that a continuation of the experiment is likely to result in injury, disability, or death to the experimental subject.

The Belmont Report (1979)

Ethical Principles & Guidelines for Research Involving Human Subjects

National Commission for the Protection of Human Subjects
of Biomedical and Behavioural Research

Scientific research has produced substantial social benefits. It has also posed some troubling ethical questions. Public attention was drawn to these questions by reported abuses of human subjects in biomedical experiments, especially during the Second World War. During the Nuremberg War Crime Trials, the Nuremberg code was drafted as a set of standards for judging physicians and scientists who had conducted biomedical experiments on concentration camp prisoners. This code became the prototype of many later codes(1) intended to assure that research involving human subjects would be carried out in an ethical manner.

The codes consist of rules, some general, others specific, which guide the investigators or the reviewers of research in their work. Such rules often are inadequate to cover complex situations; at times they come into conflict, and they are frequently difficult to interpret or apply. Broader ethical principles will provide a basis on which specific rules may be formulated, criticized and interpreted.

Three principles, or general prescriptive judgments, that are relevant to research involving human subjects are identified in this statement. Other principles may also be relevant. These three are comprehensive, however, and are stated at a level of generalization that should assist scientists, subjects, reviewers and interested citizens to understand the ethical issues inherent in research involving human subjects. These principles cannot always be applied so as to resolve beyond dispute particular ethical problems. The objective is to provide an analytical framework that will guide the resolution of ethical problems arising from research involving human subjects.

This statement consists of a distinction between research and practice, a discussion of the three basic ethical principles, and remarks about the application of these principles.

A. Boundaries Between Practice and Research

It is important to distinguish between biomedical and behavioral research, on the one hand, and the practice of accepted therapy on the other, in order to know what activities ought to undergo review for the protection of human subjects of research. The distinction between research and practice is blurred partly because both often occur together (as in research designed to evaluate a therapy) and partly because notable departures from standard practice are often called “experimental” when the terms “experimental” and “research” are not carefully defined.

For the most part, the term “practice” refers to interventions that are designed solely to enhance the well-being of an individual patient or client and that have a reasonable expectation of success. The purpose of medical or behavioral practice is to provide diagnosis, preventive

treatment or therapy to particular individuals.(2) By contrast, the term "research' designates an activity designed to test an hypothesis, permit conclusions to be drawn, and thereby to develop or contribute to generalizable knowledge (expressed, for example, in theories, principles, and statements of relationships). Research is usually described in a formal protocol that sets forth an objective and a set of procedures designed to reach that objective.

When a clinician departs in a significant way from standard or accepted practice, the innovation does not, in and of itself, constitute research. The fact that a procedure is "experimental," in the sense of new, untested or different, does not automatically place it in the category of research. Radically new procedures of this description should, however, be made the object of formal research at an early stage in order to determine whether they are safe and effective. Thus, it is the responsibility of medical practice committees, for example, to insist that a major innovation be incorporated into a formal research project.(3)

Research and practice may be carried on together when research is designed to evaluate the safety and efficacy of a therapy. This need not cause any confusion regarding whether or not the activity requires review; the general rule is that if there is any element of research in an activity, that activity should undergo review for the protection of human subjects.

B. Basic Ethical Principles

The expression "basic ethical principles" refers to those general judgments that serve as a basic justification for the many particular ethical prescriptions and evaluations of human actions. Three basic principles, among those generally accepted in our cultural tradition, are particularly relevant to the ethics of research involving human subjects: the principles of respect of persons, beneficence and justice.

1. Respect for Persons. – Respect for persons incorporates at least two ethical convictions: first, that individuals should be treated as autonomous agents, and second, that persons with diminished autonomy are entitled to protection. The principle of respect for persons thus divides into two separate moral requirements: the requirement to acknowledge autonomy and the requirement to protect those with diminished autonomy.

An autonomous person is an individual capable of deliberation about personal goals and of acting under the direction of such deliberation. To respect autonomy is to give weight to autonomous persons' considered opinions and choices while refraining from obstructing their actions unless they are clearly detrimental to others. To show lack of respect for an autonomous agent is to repudiate that person's considered judgments, to deny an individual the freedom to act on those considered judgments, or to withhold information necessary to make a considered judgment, when there are no compelling reasons to do so.

However, not every human being is capable of self-determination. The capacity for self-determination matures during an individual's life, and some individuals lose this capacity wholly or in part because of illness, mental disability, or circumstances that severely restrict liberty. Respect for the immature and the incapacitated may require protecting them as they mature or while they are incapacitated.

Some persons are in need of extensive protection, even to the point of excluding them from activities which may harm them; other persons require little protection beyond making sure they undertake activities freely and with awareness of possible adverse consequence. The extent of protection afforded should depend upon the risk of harm and the likelihood of benefit. The judgment that any individual lacks autonomy should be periodically reevaluated and will vary in different situations.

In most cases of research involving human subjects, respect for persons demands that subjects enter into the research voluntarily and with adequate information. In some situations, however, application of the principle is not obvious. The involvement of prisoners as subjects of research provides an instructive example. On the one hand, it would seem that the principle of respect for persons requires that prisoners not be deprived of the opportunity to volunteer for research. On the other hand, under prison conditions they may be subtly coerced or unduly influenced to engage in research activities for which they would not otherwise volunteer. Respect for persons would then dictate that prisoners be protected. Whether to allow prisoners to "volunteer" or to "protect" them presents a dilemma. Respecting persons, in most hard cases, is often a matter of balancing competing claims urged by the principle of respect itself.

2. Beneficence. – Persons are treated in an ethical manner not only by respecting their decisions and protecting them from harm, but also by making efforts to secure their well-being. Such treatment falls under the principle of beneficence. The term "beneficence" is often understood to cover acts of kindness or charity that go beyond strict obligation. In this document, beneficence is understood in a stronger sense, as an obligation. Two general rules have been formulated as complementary expressions of beneficent actions in this sense: (1) do not harm and (2) maximize possible benefits and minimize possible harms.

The Hippocratic maxim "do no harm" has long been a fundamental principle of medical ethics. Claude Bernard extended it to the realm of research, saying that one should not injure one person regardless of the benefits that might come to others. However, even avoiding harm requires learning what is harmful; and, in the process of obtaining this information, persons may be exposed to risk of harm. Further, the Hippocratic Oath requires physicians to benefit their patients "according to their best judgment." Learning what will in fact benefit may require exposing persons to risk. The problem posed by these imperatives is to decide when it is justifiable to seek certain benefits despite the risks involved, and when the benefits should be foregone because of the risks.

The obligations of beneficence affect both individual investigators and society at large, because they extend both to particular research projects and to the entire enterprise of research. In the case of particular projects, investigators and members of their institutions are obliged to give forethought to the maximization of benefits and the reduction of risk that might occur from the research investigation. In the case of scientific research in general, members of the larger society are obliged to recognize the longer term benefits and risks that may result from the improvement of knowledge and from the development of novel medical, psychotherapeutic, and social procedures.

The principle of beneficence often occupies a well-defined justifying role in many areas of research involving human subjects. An example is found in research involving children.

Effective ways of treating childhood diseases and fostering healthy development are benefits that serve to justify research involving children – even when individual research subjects are not direct beneficiaries. Research also makes it possible to avoid the harm that may result from the application of previously accepted routine practices that on closer investigation turn out to be dangerous. But the role of the principle of beneficence is not always so unambiguous. A difficult ethical problem remains, for example, about research that presents more than minimal risk without immediate prospect of direct benefit to the children involved. Some have argued that such research is inadmissible, while others have pointed out that this limit would rule out much research promising great benefit to children in the future. Here again, as with all hard cases, the different claims covered by the principle of beneficence may come into conflict and force difficult choices.

3. Justice. – Who ought to receive the benefits of research and bear its burdens? This is a question of justice, in the sense of "fairness in distribution" or "what is deserved." An injustice occurs when some benefit to which a person is entitled is denied without good reason or when some burden is imposed unduly. Another way of conceiving the principle of justice is that equals ought to be treated equally. However, this statement requires explication. Who is equal and who is unequal? What considerations justify departure from equal distribution? Almost all commentators allow that distinctions based on experience, age, deprivation, competence, merit and position do sometimes constitute criteria justifying differential treatment for certain purposes. It is necessary, then, to explain in what respects people should be treated equally. There are several widely accepted formulations of just ways to distribute burdens and benefits. Each formulation mentions some relevant property on the basis of which burdens and benefits should be distributed. These formulations are (1) to each person an equal share, (2) to each person according to individual need, (3) to each person according to individual effort, (4) to each person according to societal contribution, and (5) to each person according to merit.

Questions of justice have long been associated with social practices such as punishment, taxation and political representation. Until recently these questions have not generally been associated with scientific research. However, they are foreshadowed even in the earliest reflections on the ethics of research involving human subjects. For example, during the 19th and early 20th centuries the burdens of serving as research subjects fell largely upon poor ward patients, while the benefits of improved medical care flowed primarily to private patients. Subsequently, the exploitation of unwilling prisoners as research subjects in Nazi concentration camps was condemned as a particularly flagrant injustice. In this country, in the 1940's, the Tuskegee syphilis study used disadvantaged, rural black men to study the untreated course of a disease that is by no means confined to that population. These subjects were deprived of demonstrably effective treatment in order not to interrupt the project, long after such treatment became generally available.

Against this historical background, it can be seen how conceptions of justice are relevant to research involving human subjects. For example, the selection of research subjects needs to be scrutinized in order to determine whether some classes (e.g., welfare patients, particular racial and ethnic minorities, or persons confined to institutions) are being systematically selected simply because of their easy availability, their compromised position, or their manipulability, rather than for reasons directly related to the problem being studied. Finally, whenever research

supported by public funds leads to the development of therapeutic devices and procedures, justice demands both that these not provide advantages only to those who can afford them and that such research should not unduly involve persons from groups unlikely to be among the beneficiaries of subsequent applications of the research.

C. Applications

Applications of the general principles to the conduct of research leads to consideration of the following requirements: informed consent, risk/benefit assessment, and the selection of subjects of research.

1. Informed Consent. – Respect for persons requires that subjects, to the degree that they are capable, be given the opportunity to choose what shall or shall not happen to them. This opportunity is provided when adequate standards for informed consent are satisfied.

While the importance of informed consent is unquestioned, controversy prevails over the nature and possibility of an informed consent. Nonetheless, there is widespread agreement that the consent process can be analyzed as containing three elements: information, comprehension and voluntariness.

Information. Most codes of research establish specific items for disclosure intended to assure that subjects are given sufficient information. These items generally include: the research procedure, their purposes, risks and anticipated benefits, alternative procedures (where therapy is involved), and a statement offering the subject the opportunity to ask questions and to withdraw at any time from the research. Additional items have been proposed, including how subjects are selected, the person responsible for the research, etc.

However, a simple listing of items does not answer the question of what the standard should be for judging how much and what sort of information should be provided. One standard frequently invoked in medical practice, namely the information commonly provided by practitioners in the field or in the locale, is inadequate since research takes place precisely when a common understanding does not exist. Another standard, currently popular in malpractice law, requires the practitioner to reveal the information that reasonable persons would wish to know in order to make a decision regarding their care. This, too, seems insufficient since the research subject, being in essence a volunteer, may wish to know considerably more about risks gratuitously undertaken than do patients who deliver themselves into the hand of a clinician for needed care. It may be that a standard of "the reasonable volunteer" should be proposed: the extent and nature of information should be such that persons, knowing that the procedure is neither necessary for their care nor perhaps fully understood, can decide whether they wish to participate in the furthering of knowledge. Even when some direct benefit to them is anticipated, the subjects should understand clearly the range of risk and the voluntary nature of participation.

A special problem of consent arises where informing subjects of some pertinent aspect of the research is likely to impair the validity of the research. In many cases, it is sufficient to indicate to subjects that they are being invited to participate in research of which some features will not be revealed until the research is concluded. In all cases of research involving incomplete

disclosure, such research is justified only if it is clear that (1) incomplete disclosure is truly necessary to accomplish the goals of the research, (2) there are no undisclosed risks to subjects that are more than minimal, and (3) there is an adequate plan for debriefing subjects, when appropriate, and for dissemination of research results to them. Information about risks should never be withheld for the purpose of eliciting the cooperation of subjects, and truthful answers should always be given to direct questions about the research. Care should be taken to distinguish cases in which disclosure would destroy or invalidate the research from cases in which disclosure would simply inconvenience the investigator.

Comprehension. The manner and context in which information is conveyed is as important as the information itself. For example, presenting information in a disorganized and rapid fashion, allowing too little time for consideration or curtailing opportunities for questioning, all may adversely affect a subject's ability to make an informed choice.

Because the subject's ability to understand is a function of intelligence, rationality, maturity and language, it is necessary to adapt the presentation of the information to the subject's capacities. Investigators are responsible for ascertaining that the subject has comprehended the information. While there is always an obligation to ascertain that the information about risk to subjects is complete and adequately comprehended, when the risks are more serious, that obligation increases. On occasion, it may be suitable to give some oral or written tests of comprehension.

Special provision may need to be made when comprehension is severely limited – for example, by conditions of immaturity or mental disability. Each class of subjects that one might consider as incompetent (e.g., infants and young children, mentally disable patients, the terminally ill and the comatose) should be considered on its own terms. Even for these persons, however, respect requires giving them the opportunity to choose to the extent they are able, whether or not to participate in research. The objections of these subjects to involvement should be honored, unless the research entails providing them a therapy unavailable elsewhere. Respect for persons also requires seeking the permission of other parties in order to protect the subjects from harm. Such persons are thus respected both by acknowledging their own wishes and by the use of third parties to protect them from harm.

The third parties chosen should be those who are most likely to understand the incompetent subject's situation and to act in that person's best interest. The person authorized to act on behalf of the subject should be given an opportunity to observe the research as it proceeds in order to be able to withdraw the subject from the research, if such action appears in the subject's best interest.

Voluntariness. An agreement to participate in research constitutes a valid consent only if voluntarily given. This element of informed consent requires conditions free of coercion and undue influence. Coercion occurs when an overt threat of harm is intentionally presented by one person to another in order to obtain compliance. Undue influence, by contrast, occurs through an offer of an excessive, unwarranted, inappropriate or improper reward or other overture in order to obtain compliance. Also, inducements that would ordinarily be acceptable may become undue influences if the subject is especially vulnerable.

Unjustifiable pressures usually occur when persons in positions of authority or commanding influence – especially where possible sanctions are involved – urge a course of action for a subject. A continuum of such influencing factors exists, however, and it is impossible to state precisely where justifiable persuasion ends and undue influence begins. But undue influence would include actions such as manipulating a person's choice through the controlling influence of a close relative and threatening to withdraw health services to which an individual would otherwise be entitle.

2. Assessment of Risks and Benefits. – The assessment of risks and benefits requires a careful arrayal of relevant data, including, in some cases, alternative ways of obtaining the benefits sought in the research. Thus, the assessment presents both an opportunity and a responsibility to gather systematic and comprehensive information about proposed research. For the investigator, it is a means to examine whether the proposed research is properly designed. For a review committee, it is a method for determining whether the risks that will be presented to subjects are justified. For prospective subjects, the assessment will assist the determination whether or not to participate.

The Nature and Scope of Risks and Benefits. The requirement that research be justified on the basis of a favorable risk/benefit assessment bears a close relation to the principle of beneficence, just as the moral requirement that informed consent be obtained is derived primarily from the principle of respect for persons. The term "risk" refers to a possibility that harm may occur. However, when expressions such as "small risk" or "high risk" are used, they usually refer (often ambiguously) both to the chance (probability) of experiencing a harm and the severity (magnitude) of the envisioned harm.

The term "benefit" is used in the research context to refer to something of positive value related to health or welfare. Unlike, "risk," "benefit" is not a term that expresses probabilities. Risk is properly contrasted to probability of benefits, and benefits are properly contrasted with harms rather than risks of harm. Accordingly, so-called risk/benefit assessments are concerned with the probabilities and magnitudes of possible harm and anticipated benefits. Many kinds of possible harms and benefits need to be taken into account. There are, for example, risks of psychological harm, physical harm, legal harm, social harm and economic harm and the corresponding benefits. While the most likely types of harms to research subjects are those of psychological or physical pain or injury, other possible kinds should not be overlooked.

Risks and benefits of research may affect the individual subjects, the families of the individual subjects, and society at large (or special groups of subjects in society). Previous codes and Federal regulations have required that risks to subjects be outweighed by the sum of both the anticipated benefit to the subject, if any, and the anticipated benefit to society in the form of knowledge to be gained from the research. In balancing these different elements, the risks and benefits affecting the immediate research subject will normally carry special weight. On the other hand, interests other than those of the subject may on some occasions be sufficient by themselves to justify the risks involved in the research, so long as the subjects' rights have been protected. Beneficence thus requires that we protect against risk of harm to subjects and also that we be concerned about the loss of the substantial benefits that might be gained from research.

The Systematic Assessment of Risks and Benefits. It is commonly said that benefits and risks must be "balanced" and shown to be "in a favorable ratio." The metaphorical character of these terms draws attention to the difficulty of making precise judgments. Only on rare occasions will quantitative techniques be available for the scrutiny of research protocols. However, the idea of systematic, non-arbitrary analysis of risks and benefits should be emulated insofar as possible. This ideal requires those making decisions about the justifiability of research to be thorough in the accumulation and assessment of information about all aspects of the research, and to consider alternatives systematically. This procedure renders the assessment of research more rigorous and precise, while making communication between review board members and investigators less subject to misinterpretation, misinformation and conflicting judgments. Thus, there should first be a determination of the validity of the presuppositions of the research; then the nature, probability and magnitude of risk should be distinguished with as much clarity as possible. The method of ascertaining risks should be explicit, especially where there is no alternative to the use of such vague categories as small or slight risk. It should also be determined whether an investigator's estimates of the probability of harm or benefits are reasonable, as judged by known facts or other available studies.

Finally, assessment of the justifiability of research should reflect at least the following considerations: (i) Brutal or inhumane treatment of human subjects is never morally justified. (ii) Risks should be reduced to those necessary to achieve the research objective. It should be determined whether it is in fact necessary to use human subjects at all. Risk can perhaps never be entirely eliminated, but it can often be reduced by careful attention to alternative procedures. (iii) When research involves significant risk of serious impairment, review committees should be extraordinarily insistent on the justification of the risk (looking usually to the likelihood of benefit to the subject – or, in some rare cases, to the manifest voluntariness of the participation). (iv) When vulnerable populations are involved in research, the appropriateness of involving them should itself be demonstrated. A number of variables go into such judgments, including the nature and degree of risk, the condition of the particular population involved, and the nature and level of the anticipated benefits. (v) Relevant risks and benefits must be thoroughly arrayed in documents and procedures used in the informed consent process.

3. Selection of Subjects. – Just as the principle of respect for persons finds expression in the requirements for consent, and the principle of beneficence in risk/benefit assessment, the principle of justice gives rise to moral requirements that there be fair procedures and outcomes in the selection of research subjects.

Justice is relevant to the selection of subjects of research at two levels: the social and the individual. Individual justice in the selection of subjects would require that researchers exhibit fairness: thus, they should not offer potentially beneficial research only to some patients who are in their favor or select only "undesirable" persons for risky research. Social justice requires that distinction be drawn between classes of subjects that ought, and ought not, to participate in any particular kind of research, based on the ability of members of that class to bear burdens and on the appropriateness of placing further burdens on already burdened persons. Thus, it can be considered a matter of social justice that there is an order of preference in the selection of classes of subjects (e.g., adults before children) and that some classes of potential subjects (e.g., the institutionalized mentally infirm or prisoners) may be involved as research subjects, if at all, only on certain conditions.

Injustice may appear in the selection of subjects, even if individual subjects are selected fairly by investigators and treated fairly in the course of research. Thus injustice arises from social, racial, sexual and cultural biases institutionalized in society. Thus, even if individual researchers are treating their research subjects fairly, and even if IRBs are taking care to assure that subjects are selected fairly within a particular institution, unjust social patterns may nevertheless appear in the overall distribution of the burdens and benefits of research. Although individual institutions or investigators may not be able to resolve a problem that is pervasive in their social setting, they can consider distributive justice in selecting research subjects.

Some populations, especially institutionalized ones, are already burdened in many ways by their infirmities and environments. When research is proposed that involves risks and does not include a therapeutic component, other less burdened classes of persons should be called upon first to accept these risks of research, except where the research is directly related to the specific conditions of the class involved. Also, even though public funds for research may often flow in the same directions as public funds for health care, it seems unfair that populations dependent on public health care constitute a pool of preferred research subjects if more advantaged populations are likely to be the recipients of the benefits.

One special instance of injustice results from the involvement of vulnerable subjects. Certain groups, such as racial minorities, the economically disadvantaged, the very sick, and the institutionalized may continually be sought as research subjects, owing to their ready availability in settings where research is conducted. Given their dependent status and their frequently compromised capacity for free consent, they should be protected against the danger of being involved in research solely for administrative convenience, or because they are easy to manipulate as a result of their illness or socioeconomic condition.

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(1) Since 1945, various codes for the proper and responsible conduct of human experimentation in medical research have been adopted by different organizations. The best known of these codes are the Nuremberg Code of 1947, the Helsinki Declaration of 1964 (revised in 1975), and the 1971 Guidelines (codified into Federal Regulations in 1974) issued by the U.S. Department of Health, Education, and Welfare Codes for the conduct of social and behavioral research have also been adopted, the best known being that of the American Psychological Association, published in 1973.

(2) Although practice usually involves interventions designed solely to enhance the well-being of a particular individual, interventions are sometimes applied to one individual for the enhancement of the well-being of another (e.g., blood donation, skin grafts, organ transplants) or an intervention may have the dual purpose of enhancing the well-being of a particular individual, and, at the same time, providing some benefit to others (e.g., vaccination, which protects both the person who is vaccinated and society generally). The fact that some forms of practice have elements other than immediate benefit to the individual receiving an intervention, however, should not confuse the general distinction between research and practice. Even when a procedure applied in practice may benefit some other person, it remains an intervention designed to enhance the well-being of a particular individual or groups of individuals; thus, it is practice and need not be reviewed as research.

(3) Because the problems related to social experimentation may differ substantially from those of biomedical and behavioral research, the Commission specifically declines to make any policy determination regarding such research at this time. Rather, the Commission believes that the problem ought to be addressed by one of its successor bodies

The Declaration of Helsinki
Ethical Principles for Medical Research Involving Human Subject

World Medical Association Declaration of Helsinki

Adopted by the 18th WMA General Assembly
Helsinki, Finland, June 1964 and amended by the
29th WMA General Assembly, Tokyo, Japan, October 1975
35th WMA General Assembly, Venice, Italy, October 1983
41st WMA General Assembly, Hong Kong, September 1989
48th WMA General Assembly, Somerset West, Republic of South Africa, October 1996
and the 52nd WMA General Assembly, Edinburgh, Scotland, October 2000

A. INTRODUCTION

1. The World Medical Association has developed the Declaration of Helsinki as a statement of ethical principles to provide guidance to physicians and other participants in medical research involving human subjects. Medical research involving human subjects includes research on identifiable human material or identifiable data.
2. It is the duty of the physician to promote and safeguard the health of the people. The physician's knowledge and conscience are dedicated to the fulfillment of this duty.
3. The Declaration of Geneva of the World Medical Association binds the physician with the words, "The health of my patient will be my first consideration," and the International Code of Medical Ethics declares that, "A physician shall act only in the patient's interest when providing medical care which might have the effect of weakening the physical and mental condition of the patient."
4. Medical progress is based on research which ultimately must rest in part on experimentation involving human subjects.
5. In medical research on human subjects, considerations related to the well-being of the human subject should take precedence over the interests of science and society.
6. The primary purpose of medical research involving human subjects is to improve prophylactic, diagnostic and therapeutic procedures and the understanding of the etiology and pathogenesis of disease. Even the best-proven prophylactic, diagnostic, and therapeutic methods must continuously be challenged through research for their effectiveness, efficiency, accessibility and quality.
7. In current medical practice and in medical research, most prophylactic, diagnostic and therapeutic procedures involve risks and burdens.
8. Medical research is subject to ethical standards that promote respect for all human beings and protect their health and rights. Some research populations are vulnerable and need special protection. The particular needs of the economically and medically disadvantaged must be recognized. Special attention is also required for those who cannot give or refuse consent for themselves, for those who may be subject to giving consent under duress, for those who will not benefit personally from the research and for those for whom the research is combined with care.

9. Research Investigators should be aware of the ethical, legal and regulatory requirements for research on human subjects in their own countries as well as applicable international requirements. No national ethical, legal or regulatory requirement should be allowed to reduce or eliminate any of the protections for human subjects set forth in this Declaration.

B. BASIC PRINCIPLES FOR ALL MEDICAL RESEARCH

10. It is the duty of the physician in medical research to protect the life, health, privacy, and dignity of the human subject.
11. Medical research involving human subjects must conform to generally accepted scientific principles, be based on a thorough knowledge of the scientific literature, other relevant sources of information, and on adequate laboratory and, where appropriate, animal experimentation.
12. Appropriate caution must be exercised in the conduct of research that may affect the environment, and the welfare of animals used for research must be respected.
13. The design and performance of each experimental procedure involving human subjects should be clearly formulated in an experimental protocol. This protocol should be submitted for consideration, comment, guidance, and where appropriate, approval to a specially appointed ethical review committee, which must be independent of the investigator, the sponsor or any other kind of undue influence. This independent committee should be in conformity with the laws and regulations of the country in which the research experiment is performed. The committee has the right to monitor ongoing trials. The researcher has the obligation to provide monitoring information to the committee, especially any serious adverse events. The researcher should also submit to the committee, for review, information regarding funding, sponsors, institutional affiliations, other potential conflicts of interest and incentives for subjects.
14. The research protocol should always contain a statement of the ethical considerations involved and should indicate that there is compliance with the principles enunciated in this Declaration.
15. Medical research involving human subjects should be conducted only by scientifically qualified persons and under the supervision of a clinically competent medical person. The responsibility for the human subject must always rest with a medically qualified person and never rest on the subject of the research, even though the subject has given consent.
16. Every medical research project involving human subjects should be preceded by careful assessment of predictable risks and burdens in comparison with foreseeable benefits to the subject or to others. This does not preclude the participation of healthy volunteers in medical research. The design of all studies should be publicly available.
17. Physicians should abstain from engaging in research projects involving human subjects unless they are confident that the risks involved have been adequately assessed and can be satisfactorily managed. Physicians should cease any investigation if the risks are found to outweigh the potential benefits or if there is conclusive proof of positive and beneficial results.
18. Medical research involving human subjects should only be conducted if the importance of the objective outweighs the inherent risks and burdens to the subject. This is especially important when the human subjects are healthy volunteers.
19. Medical research is only justified if there is a reasonable likelihood that the populations in which the research is carried out stand to benefit from the results of the research.

20. The subjects must be volunteers and informed participants in the research project.
21. The right of research subjects to safeguard their integrity must always be respected. Every precaution should be taken to respect the privacy of the subject, the confidentiality of the patient's information and to minimize the impact of the study on the subject's physical and mental integrity and on the personality of the subject.
22. In any research on human beings, each potential subject must be adequately informed of the aims, methods, sources of funding, any possible conflicts of interest, institutional affiliations of the researcher, the anticipated benefits and potential risks of the study and the discomfort it may entail. The subject should be informed of the right to abstain from participation in the study or to withdraw consent to participate at any time without reprisal. After ensuring that the subject has understood the information, the physician should then obtain the subject's freely given informed consent, preferably in writing. If the consent cannot be obtained in writing, the non-written consent must be formally documented and witnessed.
23. When obtaining informed consent for the research project the physician should be particularly cautious if the subject is in a dependent relationship with the physician or may consent under duress. In that case the informed consent should be obtained by a well-informed physician who is not engaged in the investigation and who is completely independent of this relationship.
24. For a research subject who is legally incompetent, physically or mentally incapable of giving consent or is a legally incompetent minor, the investigator must obtain informed consent from the legally authorized representative in accordance with applicable law. These groups should not be included in research unless the research is necessary to promote the health of the population represented and this research cannot instead be performed on legally competent persons.
25. When a subject deemed legally incompetent, such as a minor child, is able to give assent to decisions about participation in research, the investigator must obtain that assent in addition to the consent of the legally authorized representative.
26. Research on individuals from whom it is not possible to obtain consent, including proxy or advance consent, should be done only if the physical/mental condition that prevents obtaining informed consent is a necessary characteristic of the research population. The specific reasons for involving research subjects with a condition that renders them unable to give informed consent should be stated in the experimental protocol for consideration and approval of the review committee. The protocol should state that consent to remain in the research should be obtained as soon as possible from the individual or a legally authorized surrogate.
27. Both authors and publishers have ethical obligations. In publication of the results of research, the investigators are obliged to preserve the accuracy of the results. Negative as well as positive results should be published or otherwise publicly available. Sources of funding, institutional affiliations and any possible conflicts of interest should be declared in the publication. Reports of experimentation not in accordance with the principles laid down in this Declaration should not be accepted for publication.

C. ADDITIONAL PRINCIPLES FOR MEDICAL RESEARCH COMBINED WITH MEDICAL CARE

28. The physician may combine medical research with medical care, only to the extent that the research is justified by its potential prophylactic, diagnostic or therapeutic value. When medical research is combined with medical care, additional standards apply to protect the patients who are research subjects.
29. The benefits, risks, burdens and effectiveness of a new method should be tested against those of the best current prophylactic, diagnostic, and therapeutic methods. This does not exclude the use of placebo, or no treatment, in studies where no proven prophylactic, diagnostic or therapeutic method exists.
30. At the conclusion of the study, every patient entered into the study should be assured of access to the best-proven prophylactic, diagnostic and therapeutic methods identified by the study.
31. The physician should fully inform the patient which aspects of the care are related to the research. The refusal of a patient to participate in a study must never interfere with the patient-physician relationship.
32. In the treatment of a patient, where proven prophylactic, diagnostic and therapeutic methods do not exist or have been ineffective, the physician, with informed consent from the patient, must be free to use unproven or new prophylactic, diagnostic and therapeutic measures, if in the physician's judgment it offers hope of saving life, re-establishing health or alleviating suffering. Where possible, these measures should be made the object of research, designed to evaluate their safety and efficacy. In all cases, new information should be recorded and, where appropriate, published. The other relevant guidelines of this Declaration should be followed.

CONVENTION FOR THE PROTECTION OF HUMAN RIGHTS AND DIGNITY OF THE HUMAN BEING WITH REGARD TO THE APPLICATION OF BIOLOGY AND MEDICINE:

Council of Europe Convention on Human Rights and Biomedicine
(1997)

Chapter I – General provisions

Article 1 – Purpose and object

Parties to this Convention shall protect the dignity and identity of all human beings and guarantee everyone, without discrimination, respect for their integrity and other rights and fundamental freedoms with regard to the application of biology and medicine.
Each Party shall take in its internal law the necessary measures to give effect to the provisions of this Convention.

Article 2 – Primacy of the human being

The interests and welfare of the human being shall prevail over the sole interest of society or science.

Article 3 – Equitable access to health care

Parties, taking into account health needs and available resources, shall take appropriate measures with a view to providing, within their jurisdiction, equitable access to health care of appropriate quality.

Article 4 – Professional standards

Any intervention in the health field, including research, must be carried out in accordance with relevant professional obligations and standards.

Chapter II – Consent

Article 5 – General rule

An intervention in the health field may only be carried out after the person concerned has given free and informed consent to it.
This person shall beforehand be given appropriate information as to the purpose and nature of the intervention as well as on its consequences and risks.
The person concerned may freely withdraw consent at any time.

Article 6 – Protection of persons not able to consent

1. Subject to Articles 17 and 20 below, an intervention may only be carried out on a person who does not have the capacity to consent, for his or her direct benefit.
2. Where, according to law, a minor does not have the capacity to consent to an intervention, the intervention may only be carried out with the authorization of his or her representative or an authority or a person or body provided for by law.
   The opinion of the minor shall be taken into consideration as an increasingly determining factor in proportion to his or her age and degree of maturity.
3. Where, according to law, an adult does not have the capacity to consent to an intervention because of a mental disability, a disease or for similar reasons, the intervention may only be carried out with the authorization of his or her representative or an authority or a person or body provided for by law.
   The individual concerned shall as far as possible take part in the authorization procedure.
4. The representative, the authority, the person or the body mentioned in paragraphs 2 and 3 above shall be given, under the same conditions, the information referred to in Article 5.
5. The authorization referred to in paragraphs 2 and 3 above may be withdrawn at any time in the best interests of the person concerned.

Article 7 – Protection of persons who have mental disorder

Subject to protective conditions prescribed by law, including supervisory, control and appeal procedures, a person who has a mental disorder of a serious nature may be subjected, without his or her consent, to an intervention aimed at treating his or her mental disorder only where, without such treatment, serious harm is likely to result to his or her health.

Article 8 – Emergency situation

When because of an emergency situation the appropriate consent cannot be obtained, any medically necessary intervention may be carried out immediately for the benefit of the health of the individual concerned.

Article 9 – Previously expressed wishes

The previously expressed wishes relating to a medical intervention by a patient who is not, at the time of the intervention, in a state to express his or her wishes shall be taken into account.

Chapter III – Private life and right to information

Article 10 – Private life and right to information

1. Everyone has the right to respect for private life in relation to information about his or her health.
2. Everyone is entitled to know any information collected about his or her health. However, the wishes of individuals not to be so informed shall be observed.

3. In exceptional cases, restrictions may be placed by law on the exercise of the rights contained in paragraph 2 in the interests of the patient.

Chapter IV – Human genome

Article 11 – Non-discrimination

Any form of discrimination against a person on grounds of his or her genetic heritage is prohibited.

Article 12 – Predictive genetic tests

Tests which are predictive of genetic diseases or which serve either to identify the subject as a carrier of a gene responsible for a disease or to detect a genetic predisposition or susceptibility to a disease may be performed only for health purposes or for scientific research linked to health purposes, and subject to appropriate genetic counseling.

Article 13 – Interventions on the human genome

An intervention seeking to modify the human genome may only be undertaken for preventive, diagnostic or therapeutic purposes and only if its aim is not to introduce any modification in the genome of any descendants.

Article 14 – Non-selection of sex

The use of techniques of medically assisted procreation shall not be allowed for the purpose of choosing a future child's sex, except where serious hereditary sex-related disease is to be avoided.

Chapter V – Scientific research

Article 15 – General rule

Scientific research in the field of biology and medicine shall be carried out freely, subject to the provisions of this Convention and the other legal provisions ensuring the protection of the human being.

Article 16 – Protection of persons undergoing research

Research on a person may only be undertaken if all the following conditions are met:

i) there is no alternative of comparable effectiveness to research on humans,
ii) the risks which may be incurred by that person are not disproportionate to the potential benefits of the research,
iii) the research project has been approved by the competent body after independent examination of its scientific merit, including assessment of the importance of the aim of the research, and multidisciplinary review of its ethical acceptability,

iv) the persons undergoing research have been informed of their rights and the safeguards prescribed by law for their protection,
v) the necessary consent as provided for under Article 5 has been given expressly, specifically and is documented. Such consent may be freely withdrawn at any time.

Article 17 – Protection of persons not able to consent to research

Research on a person without the capacity to consent as stipulated in Article 5 may be undertaken only if all the following conditions are met:

i) the conditions laid down in Article 16, sub-paragraphs i to iv, are fulfilled;
ii) the results of the research have the potential to produce real and direct benefit to his or her health;
iii) research of comparable effectiveness cannot be carried out on individuals capable of giving consent;
iv) the necessary authorization provided for under Article 6 has been given specifically and in writing, and
v) the person concerned does not object.

Exceptionally and under the protective conditions prescribed by law, where the research has not the potential to produce results of direct benefit to the health of the person concerned, such research may be authorized subject to the conditions laid down in paragraph 1, sub-paragraphs i, iii, iv and v above, and to the following additional conditions:

i) the research has the aim of contributing, through significant improvement in the scientific understanding of the individual's condition, disease or disorder, to the ultimate attainment of results capable of conferring benefit to the person concerned or to other persons in the same age category or afflicted with the same disease or disorder or having the same condition.
ii) the research entails only minimal risk and minimal burden for the individual concerned.

Article 18 – Research on embryos in vitro

1. Where the law allows research on embryos in vitro, it shall ensure adequate protection of the embryo.
2. The creation of human embryos for research purposes is prohibited.

Chapter VI – Organ and tissue removal from living donors for transplantation purposes

Article 19 – General rule

1. Removal of organs or tissue from a living person for transplantation purposes may be carried out solely for the therapeutic benefit of the recipient and where there is no suitable organ or tissue available from a deceased person and no other alternative therapeutic method of comparable effectiveness.
2. The necessary consent as provided for under Article 5 must have been given expressly and specifically either in written form or before an official body.

Article 20 – Protection of persons not able to consent to organ removal

No organ or tissue removal may be carried out on a person who does not have the capacity to consent under Article 5.
Exceptionally and under the protective conditions prescribed by law, the removal of regenerative tissue from a person who does not have the capacity to consent may be authorized provided the following conditions are met:

i) there is no compatible donor available who has the capacity to consent,
ii) the recipient is a brother or sister of the donor,
iii) the donation must have the potential to be life-saving for the recipient,
iv) the authorization provided for under paragraphs 2 and 3 of Article 6 has been given specifically and in writing, in accordance with the law and with the approval of the competent body,
v) the potential donor concerned does not object**.**

Chapter VII – Prohibition of financial gain and disposal of a part of the human body

Article 21 – Prohibition of financial gain

The human body and its parts shall not, as such, give rise to financial gain.

Article 22 – Disposal of a removed part of the human body

When in the course of an intervention any part of a human body is removed, it may be stored and used for a purpose other than that for which it was removed, only if this is done in conformity with appropriate information and consent procedures.

Chapter VIII – Infringements of the provisions of the Convention

Article 23 – Infringement of the rights or principles

The Parties shall provide appropriate judicial protection to prevent or to put a stop to an unlawful infringement of the rights and principles set forth in this Convention at short notice.

Article 24 – Compensation for undue damage

The person who has suffered undue damage resulting from an intervention is entitled to fair compensation according to the conditions and procedures prescribed by law.

Article 25 – Sanctions

Parties shall provide for appropriate sanctions to be applied in the event of infringement of the provisions contained in this Convention.

Chapter IX – Relation between this Convention and other provisions

Article 26 – Restrictions on the exercise of the rights

1. No restrictions shall be placed on the exercise of the rights and protective provisions contained in this Convention other than such as are prescribed by law and are necessary in a democratic society in the interest of public safety, for the prevention of crime, for the protection of public health or for the protection of the rights and freedoms of others.
2. The restrictions contemplated in the preceding paragraph may not be placed on Articles 11, 13, 14, 16, 17, 19, 20 and 21.

Article 27 – Wider protection

None of the provisions of this Convention shall be interpreted as limiting or otherwise affecting the possibility for a Party to grant a wider measure of protection with regard to the application of biology and medicine than is stipulated in this Convention.

Chapter X – Public debate

Article 28 – Public debate

Parties to this Convention shall see to it that the fundamental questions raised by the developments of biology and medicine are the subject of appropriate public discussion in the light, in particular, of relevant medical, social, economic, ethical and legal implications, and that their possible application is made the subject of appropriate consultation.

Chapter XI – Interpretation and follow-up of the Convention

Article 29 – Interpretation of the Convention
Article 30 – Reports on the application of the Convention

Chapter XII – Protocols

Article 31 – Protocols

Chapter XIII – Amendments to the Convention

Article 32 – Amendments to the Convention

Chapter XIV – Final clauses

Article 33 – Signature, ratification, and entry into force
Article 34 – Non-member States
Article 35 – Territories
Article 36 – Reservations
Article 37 – Denunciation
Article 38 – Notifications

The Canadian Tri-Council Policy Statement: Ethical Conduct of Research Involving Humans (1999)

The following is a comprehensive listing of all articles included in the statement.

Article 1.1

a. All research that involves living human subjects requires review and approval by a Research Ethics Board (REB) in accordance with this Policy Statement, before the research is started, except as stipulated below.
b. Research involving human remains, cadavers, tissues, biological fluids, embryos or fetuses should also be reviewed by the REB.
c. Research about a living individual involved in the public arena, or about an artist, based exclusively on publicly available information, documents, records, works, performances, archival materials or third-party interviews, is not required to undergo ethics review. Such research only requires ethics review if the subject is approached directly for interviews or for access to private papers, and then only to ensure that such approaches are conducted according to professional protocols and to Article 2.3 of this Policy.
d. Quality assurance studies, performance reviews or testing within normal educational requirements should also not be subject to REB review.

Article 1.2

The institution in which research involving human subjects is carried out shall mandate the REB to approve, reject, propose modifications to, or terminate any proposed or ongoing research involving human subjects, which is conducted within, or by members of, the institution, using the considerations set forth in this Policy as the minimum standard.

Article 1.3

The REB shall consist of at least five members, including both men and women, of whom:

a. at least two members have broad expertise in the methods or in the areas of research that are covered by the REB;
b. at least one member is knowledgeable in ethics;
c. for biomedical research, at least one member is knowledgeable in the relevant law; this is advisable but not mandatory for other areas of research; and
d. at least one member has no affiliation with the institution, but is recruited from the community served by the institution.

Article 1.4

a. REBs shall be established by the highest levels of the institution, and cover as broad a range of research as is consistent with manageable workloads. Departmental REBs normally are not acceptable (except as discussed below for review of undergraduate

research within course requirements). A multiplicity of REBs with small workloads within the same institution should be avoided.

b. Large institutions may find it necessary to create more than one REB, usually to cover different areas of research. The jurisdiction of each REB should be clearly defined by the normal processes of governance within the Institution, and a mechanism should be established to coordinate the practices of all REBs within the Institution.
c. Small institutions may wish to explore regional cooperation or alliances, including the sharing of REBs.

Article 1.5

a. The REB shall satisfy itself that the design of a research project that poses more than minimal risk is capable of addressing the questions being asked in the research.
b. The extent of the review for scholarly standards that is required for biomedical research that does not involve more than minimal risk will vary according to the research being carried out.
c. Research in the humanities and the social sciences, which poses at most, minimal risk, shall not normally be required by the REB to be peer reviewed.
d. Certain types of research, particularly in the social sciences and the humanities, may legitimately have a negative effect on public figures in politics, business, labour, the arts or other walks of life, or on organizations. Such research should not be blocked through the use of harms/benefits analysis or because of the potentially negative nature of the findings. The safeguard for those in the public arena is through public debate and discourse and, *in extremis*, through action in the courts for libel.

Article 1.6

The REB should adopt a proportionate approach based on the general principle that the more invasive the research, the greater should be the care in assessing the research.

Article 1.7

REBs shall meet regularly to discharge their responsibilities.

Article 1.8

Minutes of all REB meetings shall be prepared and maintained by the REB. The minutes shall clearly document the REB's decisions and any dissents, and the reasons for them. In order to assist internal and external audits or research monitoring, and to facilitate reconsideration or appeals, the minutes must be accessible to authorized representatives of the institution, researchers and funding agencies.

Article 1.9

REBs shall meet face-to-face to review proposed research that is not delegated to expedited review. REB review shall be based upon fully detailed research proposals or, where applicable,

progress reports. The REB shall function impartially, provide a fair hearing to those involved and provide reasoned and appropriately documented opinions and decisions. The REB shall accommodate reasonable requests from researchers to participate in discussions about their proposals, but not be present when the REB is making its decision. When an REB is considering a negative decision, it shall provide the researcher with all the reasons for doing so and give the researcher an opportunity to reply before making a final decision.

Article 1.10

Researchers have the right to request, and REBs have an obligation to provide, reconsideration of decisions affecting a research project.

Article 1.11

In cases when researchers and REBs can not reach agreement through discussion and reconsideration, an institution should permit review of an REB decision by an appeal board, provided that the board is within the same institution and its membership and procedures meet the requirements of this Policy. No *ad hoc* appeal boards are permitted.
The Councils will not entertain any appeals of REB decisions.

Article 1.12

If an REB is reviewing research in which a member of the REB has a personal interest in the research under review (e.g., as a researcher or as an entrepreneur), conflict of interest principles require that the member not be present when the REB is discussing or making its decision. The REB member may disclose and explain the conflict of interest and offer evidence to the REB provided the conflict is fully explained to the REB, and the proposer of the research has the right to hear the evidence and to offer a rebuttal.

Article 1.13

a. Ongoing research shall be subject to continuing ethics review. The rigour of the review should be in accordance with a proportionate approach to ethics assessment.
b. As part of each research proposal submitted for REB review, the researcher shall propose to the REB the continuing review process deemed appropriate for that project.
c. Normally, continuing review shall consist of at least the submission of a succinct annual status report to the REB. The REB shall be promptly notified when the project concludes.

Article 1.14

Research to be performed outside the jurisdiction or country of the institution which employs the researcher shall undergo prospective ethics review both (a) by the REB within the researcher's institution; and (b) by the appropriate REB, where such exists, which has authority in the country or jurisdiction where the research is to be done.

Article 2.1

a. Research governed by this Policy (see Article 1.1) may begin only if (1) prospective subjects, or authorized third parties, have been given the opportunity to give free and informed consent about participation, and (2) their free and informed consent has been given and is maintained throughout their participation in the research. Articles 2.1, 2.3 and 2.8 provide exceptions to Article 2.1(a).
b. Evidence of free and informed consent by the subject or authorized third party should ordinarily be obtained in writing. Where written consent is culturally unacceptable, or where there are good reasons for not recording consent in writing, the procedures used to seek free and informed consent shall be documented.
c. The REB may approve a consent procedure[1] which does not include, or which alters, some or all of the elements of informed consent set forth above, or waive the requirement to obtain informed consent, provided that the REB finds and documents that:

    i. The research involves no more than minimal risk to the subjects;
    ii. The waiver or alteration is unlikely to adversely affect the rights and welfare of the subjects;
    iii. The research could not practicably be carried out without the waiver or alteration;
    iv. Whenever possible and appropriate, the subjects will be provided with additional pertinent information after participation; and
    v. The waivered or altered consent does not involve a therapeutic intervention.

d. In studies including randomization and blinding in clinical trials, neither the research subjects nor those responsible for their care know which treatment the subjects are receiving before the project commences. Such research is not regarded as a waiver or alteration of the requirements for consent if subjects are informed of the probability of being randomly assigned to one arm of the study or another.

Article 2.2

Free and informed consent must be voluntarily given, without manipulation, undue influence or coercion.

Article 2.3

REB review is normally required for research involving naturalistic observation. However, research involving observation of participants in, for example, political rallies, demonstrations or public meetings, should not require REB review since it can be expected that the participants are seeking public visibility.

Article 2.4

Researchers shall provide, to prospective subjects or authorized third parties, full and frank disclosure of all information relevant to free and informed consent. Throughout the free and informed consent process, the researcher must ensure that prospective subjects are given

adequate opportunities to discuss and contemplate their participation. Subject to the exception in Article 2.1 (c), at the commencement of the free and informed consent process, researchers or their qualified designated representatives shall provide prospective subjects with the following:

a. Information that the individual is being invited to participate in a research project;
b. A comprehensible statement of the research purpose, the identity of the researcher, the expected duration and nature of participation, and a description of research procedures;
c. A comprehensible description of reasonably foreseeable harms and benefits that may arise from research participation, as well as the likely consequences of non-action, particularly in research related to treatment, or where invasive methodologies are involved, or where there is a potential for physical or psychological harm;
d. An assurance that prospective subjects are free not to participate, have the right to withdraw at any time without prejudice to pre-existing entitlements, and will be given continuing and meaningful opportunities for deciding whether or not to continue to participate; and
e. The possibility of commercialization of research findings, and the presence of any apparent or actual or potential conflict of interest on the part of researchers, their institutions or sponsors.

In light of (b) and (c), REBs may require researchers to provide below:

Additional information that may be required for some projects:

1. An assurance that new information will be provided to the subjects in a timely manner whenever such information is relevant to a subject's decision to continue or withdraw from participation;
2. The identity of the qualified designated representative who can explain scientific or scholarly aspects of the research;
3. Information on the appropriate resources outside the research team to contact regarding possible ethical issues in the research;
4. An indication as to who will have access to information collected on the identity of subjects, and descriptions of how confidentiality will be protected, and anticipated uses of data;
5. An explanation of the responsibilities of the subject;
6. Information on the circumstances under which the researcher may terminate the subject's participation in the research;
7. Information on any costs, payments, reimbursement for expenses or compensation for injury;
8. In the case of randomizes trials, the probability of assignment to each option;
9. For research on biomedical procedures, including health care interventions; information about (a) foregoing alternative procedures that might be advantageous to the subject, (b) which aspects of the research involve the use of procedures that are not generally recognized or accepted; and, (c) particularly in trials of therapeutic interventions, the care provided if the potential subject decides not to consent to participation in the study;
10. The ways in which the research results will be published, and how the subjects will be informed of the results of the research.

Article 2.5

Subject to applicable legal requirements, individuals who are not legally competent shall only be asked to become research subjects when:

a. the research question can only be addressed using the identified group(s); and
b. free and informed consent will be sought from their authorized representative(s); and
c. .the research does not expose them to more than minimal risks without the potential for direct benefits for them.

Article 2.6

For research involving incompetent individuals, the REB shall ensure that, as a minimum, the following conditions are met:

a. The researcher shall show how the free and informed consent will be sought from the authorized third party, and how the subjects' best interests will be protected.
b. The authorized third party may not be the researcher or any other member of the research team.
c. The continued free and informed consent of an appropriately authorized third party will be required to continue the participation of a legally incompetent subject in research, so long as the subject remains incompetent.
d. When a subject who was entered into a research project through third-party authorization becomes competent during the project, his or her informed consent shall be sought as a condition of continuing participation.

Article 2.7

Where free and informed consent has been obtained from an authorized third party, and in those circumstances where the legally incompetent individual understands the nature and consequences of the research, the researcher shall seek to ascertain the wishes of the individual concerning participation. The potential subject's dissent will preclude his or her participation.

Article 2.8

Subject to all applicable legislative and regulatory requirements, research involving emergency health situations shall be conducted only if it addresses the emergency needs of individuals involved, and then only in accordance with criteria established in advance of such research by the REB. The REB may allow research that involves health emergencies to be carried out without the free and informed consent of the subject or of his or her authorized third party if ALL of the following apply:

a. A serious threat to the prospective subject requires immediate intervention; and
b. Either no standard efficacious care exists or the research offers a real possibility of direct benefit to the subject in comparison with standard care; and
c. Either the risk of harm is not greater than that involved in standard efficacious care, or it is clearly justified by the direct benefits to the subject; and
d. The prospective subject is unconscious or lacks capacity to understand risks, methods and purposes of the research; and

e. Third-party authorization cannot be secured in sufficient time, despite diligent and documented efforts to do so; and
f. No relevant prior directive by the subject is known to exist. S dissent will preclude his or her participation.

When a previously incapacitated subject regains capacity, or when an authorized third party is found, free and informed consent shall be sought promptly for continuation in the project and for subsequent examinations or tests related to the study.

Article 3.1

Subject to the exceptions in Article 1.1above, researchers who intend to interview a human subject to secure identifiable personal information shall secure REB approval for the interview procedure used and shall ensure the free and informed consent of the interviewee as required in Article 2.4. As indicated in Article 1.1c, REB approval is not required for access to publicly available information or materials, including archival documents and records of public interviews or performances.

Article 3.2

Subject to Article 3.1 above, researchers shall secure REB approval for obtaining identifiable personal information about subjects. Approval for such research shall include such considerations as:

a. The type of data to be collected;
b. The purpose for the which the data will be used;
c. Limit on the use, disclosure, and retention of the data;
d. Appropriate safeguards for security and confidentiality;
e. Any modes of observation (e.g., photographs or videos) or access to information (e.g., sound recordings) in the research that allow identification of particular subjects;
f. Any anticipated secondary uses of identifiable data from the research;
g. Any anticipated linkage of data gathered in the research with other data about subjects, whether those data are contained in public or personal records; and
h. Provisions for confidentiality of data resulting from the research.

Article 3.3

If identifying information is involved, REB approval shall be sought for secondary uses of data. Researchers may gain access to identifying information if they have demonstrated to the satisfaction of the REB that:

a. Identifying information is essential to the research; and
b. They will take appropriate measures to protect the privacy of the individuals, to ensure the confidentiality of the data, and to minimize harms to subjects;
c. Individuals to whom the data refer have not objected to secondary use.

Article 3.4

The REB may also require that a researcher's access to secondary use of data involving identifying information be dependent on:

a. The informed consent of those who contributed data or of authorized third parties; or
b. An appropriate strategy for informing the subjects; or
c. Consultation with representatives of those who contributed data.

Article 3.5

Researchers who wish to contact individuals to whom data refer shall seek the authorization of the REB prior to contact.

Article 3.6

The implications of approved data linkage in which research subjects may be identifiable shall be approved by the REB.

Article 4.1

Researchers and REB members shall disclose actual, perceived or potential conflicts of interest to the REB. REBs should develop mechanisms to address and resolve conflicts of interest.

Article 5.1

a. Where research is designed to survey a number of living research subjects because of their involvement in generic activities (e.g., in many areas of health research or in some social science research such as studies of child poverty or of access to legal clinics) that are not specific to particular identifiable groups, researchers shall not exclude prospective or actual research subjects on the basis of such attributes as culture, religion, race, mental or physical disability, sexual orientation, ethnicity, sex or age, unless there is a valid reason for doing so.

b. This article is not intended to preclude research focused on a single living individual (such as in a biography) or on a group of individuals who share a specific characteristic (as in a study of an identifiable group of painters who happen to be all of one sex, colour or religion, or of a religious order which is restricted to one sex).

Article 5.2

Women shall not automatically be excluded from research solely on the basis of sex or reproductive capacity.

Article 5.3

Subject to the provisions in Articles 2.6 to 2.8, those who are not competent to consent for

themselves shall not be automatically excluded from research which is potentially beneficial to them as individuals, or to the group that they represent.

Article 6

(None)

Article 7.1

Phase I non-therapeutic clinical trials shall undergo both stringent review and continuous monitoring by an REB independent of the clinical trials sponsor.

Article 7.2

In combined Phase I/II clinical trials, researchers and REBs shall carefully examine the integrity of the free and informed consent process. Where appropriate, the REB may require an independent monitoring process.

Article 7.3

REBs shall examine the budgets of clinical trials to assure that ethical duties concerning conflict of interest are respected.

Article 7.4

The use of placebo controls in clinical trials is generally unacceptable when standard therapies or interventions are available for a particular patient population.

Article 8.1

The genetics researcher shall seek free and informed consent from the individual and report results to that individual if the individual so desires.

Article 8.2

The researcher and the REB shall ensure that the results of genetic testing and genetic counseling records are protected from access by third parties, unless free and informed consent is given by the subject. Family information in databanks shall be coded so as to remove the possibility of identification of subjects within the bank itself.

Article 8.3

Researchers and genetic counselors involving families and groups in genetic research studies shall reveal potential harms to the REB and outline how such harms will be dealt with as part of the research project.

Article 8.4

Genetics researchers and the REB shall ensure that the research protocol makes provision for access to genetic counseling for the subjects, where appropriate.

Article 8.5

Gene alteration (including "gene therapy") that involves human germ-line cells or human embryos is not ethically acceptable. Gene alteration for therapeutic purposes and involving human somatic cells may be considered for approval.

Article 8.6

Though the banking of genetic material is expected to yield benefits, it may also pose potential harms to individuals, their families and the groups to which they may belong. Accordingly, researchers who propose research involving the banking of genetic material have a duty to satisfy the REB and prospective research subjects that they have addressed the associated ethical issues, including confidentiality, privacy, storage, use of the data and results, withdrawal by the subject, and future contact of subjects, families and groups.

Article 8.7

At the outset of a research project, the researcher shall discuss with the REB and the research subject the possibility and/or probability that the genetic material and the information derived from its use may have potential commercial uses.

Article 9.1

Researchers shall obtain free and informed consent from the individual whose gametes are to be used in research.

Article 9.2

In research, it is not ethical to use in research ova or sperm that have been obtained through commercial transactions, including exchange for service.

Article 9.3

It is not ethically acceptable to create, or intend to create, hybrid individuals by such means as mixing human and animal gametes, or transferring somatic or germ cell nuclei between cells of humans and other species.

Article 9.4

It is not ethically acceptable to create human embryos specifically for research purposes. However, in those cases where human embryos are created for reproductive purposes, and

subsequently are no longer required for such purposes, research involving human embryos may be considered to be ethically acceptable, but only if all of the following apply:

a. The ova and sperm from which they were formed are obtained in accordance with Articles 9.1 and 9.2;

b. The research does not involve the genetic alteration of human gametes or embryos;

c. Embryos exposed to manipulations not directed specifically to their ongoing normal development will not be transferred for continuing pregnancy; and

d. Research involving human embryos takes place only during the first 14 days after their formation by combination of the gametes.

Article 9.5

It is not ethically acceptable to undertake research that involves ectogenesis, cloning human beings by any means including somatic cell nuclear transfer, formation of animal/human hybrids, or the transfer of embryos between humans and other species.

Article 10.1

Research proposing the collection and use of human tissues requires ethics review by a REB. Amongst other things, the researcher shall demonstrate the following to the REB:

a. That the collection and use of human tissues for research purposes shall be undertaken with the free and informed consent of competent donors;
b. In the case of incompetent donors, free and informed consent shall be by an authorized third party;
c. In the case of deceased donors, free and informed consent shall be expressed in a prior directive or through the exercise of free and informed consent by an authorized third party.

Article 10.2

For the purpose of obtaining free and informed consent, researchers who seek to collect human tissue for research shall, as a minimum, provide potential donors or authorized third parties information about:

a. The purpose of the research;
b. The type and amount of tissue to be taken, as well as the location where the tissue is to be taken;
c. The manner in which tissue will be taken, the safety and invasiveness of acquisition, and the duration and conditions of preservation;
d. The potential uses for the tissue including any commercial uses;
e. The safeguards to protect the individual's privacy and confidentiality;
f. Identifying information attached to specific tissue, and its potential traceability; and
g. How the use of the tissue could affect privacy.

Article 10.3

a. When identification is possible, researchers shall seek to obtain free and informed consent from individuals, or from their authorized third parties, for the use of their previously collected tissue. The provisions of Article 10.2 also apply here.
b. When collected tissue has been provided by persons who are not individually identifiable (anonymous and anonymized tissue), and when there are no potential harms to them, there is no need to seek donors' permission to use their tissue for research purposes, unless applicable law so requires.

Endnotes

[1] Article 2.1© was adapted from *Protection of Human Subjects*, U.S. Dept. Of Health & Human Services, Title 45; *Code of Federal Regulations, Part 46.116(d).*

Section II

Requirements of the Research Advisory Council of the King Faisal Specialist Hospital and Research Centre

1. General Requirements

All research that is to be conducted in human subjects by full-time, voluntary, or part-time members, students or trainees of the KFSH&RC must be submitted to the Office of Research Affairs (ORA) for review by the RAC. No research in human subjects can be initiated without RAC approval (unless specifically categorized as exempt from RAC review, see below). The period of approval will be indicated in a written communication from the ORA to the Principal Investigator. It is important to note that the RAC approves a project only for a **maximum** period of 365 days. To renew the approval period of a project, the investigator must submit a progress report to the ORA for review and approval by the RAC. **It is the responsibility of the Principal Investigator to provide a progress report on time for uninterrupted RAC approval.** Progress reports must be submitted at least one month prior to the date that approval terminates.

In the Progress Report, it is essential that investigators indicate whether or not the application includes any modification in the research protocol and/or the consent form. Whether or not there have been any modifications in the protocol, all progress reports must be accompanied by a copy of the consent form that will be utilized during the requested period of the renewal.

The KFSH&RC Research Ethics Committee (REC), one of the four standing committees that support the RAC is charged to evaluate the religious and ethical aspects of all research proposals involving human subjects that are undertaken by members of, or within, the KFSH&RC. Human subject is defined as an individual about whom an investigator obtains (i) data through intervention or interaction with the individual, or (ii) identifiable private information (eg, medical records). Proposals recommended by the REC may be subject to further review and approval by the RAC. The REC meets biweekly on Sunday pm.

In reviewing research protocols involving human subjects, the REC considers the expertise and experience of the investigators to be a major indicator that risks to the subjects will be minimized and benefits from the study maximized. The REC encourages principal investigators to include co-investigators who are knowledgeable and experienced in the performance and evaluation of procedures to be used in the research. The co-investigators should have an active role in developing the research proposal and they must assume responsibility for the accuracy and appropriateness of those parts of the proposal related to their particular expertise proposal (see RAC 8.3. Guidelines for Proposal Authorship). They are responsible to have knowledge of all study procedures as well as the risks, benefits and adverse effects. This information is provided to subjects as part of the informed process).

To document the acceptance of this responsibility and the agreement to participate in the study once it is approved, each co-investigator must sign the Investigators' Assurance Form (see ORA 5.1.2, Investigators' Assurance Form).

Principal investigators are urged to consult with the appropriate co-investigators early in the process of protocol development and arrange to obtain the required signatures before the application is submitted to the ORA.

2. Requirements for Research in Human Subjects at Affiliates of KFSH&RC

The RAC promotes, regulates, and monitors all aspects of the research activities undertaken by members of, or within, the King Faisal Specialist Hospital & Research Centre (KFSH&RC) and affiliated Institutions (KFSH&RC Health Care System, KFSH&RCHCS). Research is defined as any systematic investigation (i.e., the gathering and analysis of information designed, in whole or in part, to develop or contribute to generalizable knowledge.

a) All research applications must be submitted to the ORA at KFSH&RC. With the exception of components of the pre-printed pages of the consent document which are not directly applicable to the affiliate institution, the RAC of KFSH&RC requires that consent documents utilize the KFSH&RC format. The KFSH&RC RAC Policies and Guidelines Manual and ORA forms for conducting research in human subjects are available at each affiliate site. When approval of a project is granted, the KFSH&RC REC will notify the investigator as well as the research office at the affiliate institution.

b) Reports of adverse events, requests for approval of modifications in protocols and/or consent forms or administrative matters relative to a project must be submitted to the ORA.

3. Requirements for Informed Consent

Listed below are the basic elements and additional elements that are to be provided to each research subject. (Please see Appendix 1-8)

A. Basic elements of informed consent that must be provided to each subject.

(1) a statement that the study involves research, an explanation of the purposes of the research and the expected duration of the subject's participation, a description of the procedures to be followed, and identification of any procedures which are experimental;

(2) a description of any reasonably foreseeable risks or discomforts to the subject;

(3) a description of any benefits to the subject or to others which may reasonably be expected from the research;

(4) a disclosure of appropriate alternative procedures or courses of treatment, if any, that might be advantageous to the subject;

(5). a statement describing the extent, if any, to which confidentiality of records identifying the subject will be maintained;

(6) for research involving more than minimal risk, an explanation as to whether any compensation and an explanation as to whether any medical treatments are available if injury occurs and, if so, what they consist of, or where further information may be obtained;

(7) an explanation of whom to contact for answers to pertinent questions about the research and research subjects' rights, and whom to contact in the event of a research-related injury to the subject; and

(8) a statement that participation is voluntary, refusal to participate will involve no penalty or loss of benefits to which the subject is otherwise entitled, and the subject may discontinue participation at any time without penalty or loss of benefits to which the subject is otherwise entitled.

B. Additional elements of informed consent, which must be provided to each subject, when appropriate.

(1) a statement that the particular treatment or procedure may involve risks to the subject (or to the embryo or fetus, if the subject is or may become pregnant) which are currently unforeseeable;
(2) anticipated circumstances under which the subject's participation may be terminated by the investigator without regard to the subject's consent;
(3) any additional costs to the subject that may result from participation in the research;
(4) the consequences of a subject's decision to withdraw from the research and procedures for orderly termination of participation by the subject;
(5) a statement that significant new findings developed during the course of the research which may relate to the subject's willingness to continue participation will be provided to the subject; and
(6) the approximate number of subjects involved in the study.

4. Criteria for REC Approval of Research

The REC must determine that all of the following requirements are satisfied before the REC can approve the initiation of research in human subjects (please see Appendix 4 & 5).

(1) Risks to subjects are minimized:
  (i) by using procedures which are consistent with sound research design and which do not unnecessarily expose subjects to risk, and
  (ii) whenever appropriate, by using procedures already being performed on the subjects for diagnostic or treatment purposes.

(2) Risks to subjects are reasonable in relation to anticipated benefits, if any, to subjects, and the importance of the knowledge that may reasonably be expected to result. In evaluating risks and benefits, the REC should consider only those risks and benefits that may result from the research (as distinguished from risks and benefits of therapies subjects would receive even if not participating in the research). The REC should not consider possible long-range effects of applying knowledge gained in the research (for example, the possible effects of the research on public policy) as among those research risks that fall within the purview of its responsibility.

(3) Selection of subjects is equitable. In making this assessment the REC should take into account the purposes of the research and the setting in which the research will be conducted and should be particularly cognizant of the special problems of research involving vulnerable populations, such as children, prisoners, pregnant women, mentally disabled persons, or economically or educationally disadvantaged persons.

(4) Informed consent will be sought form each prospective subject or the subject's legally authorized representative, in accordance with, and to the extent required by this Policy and RAC Bylaws (see above, requirements for informed consent, and see below, waiver of informed consent).

(5) Informed consent will be appropriately documented, in accordance with, and to the extent required by this Policy and RAC Bylaws (see below, waiver of signed consent).

(6) When appropriate, the research plan makes adequate provision for monitoring the data collected to ensure the safety of subjects.

(7) When appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of data.

(8) When some or all of the subjects are likely to be vulnerable to coercion or undue influence, such as children, prisoners, pregnant women, mentally disabled persons, or economically or educationally disadvantaged persons, additional safeguard have been included in the study to protect the rights and welfare of these subjects.

5. Research that Requires Review at a Convened Meeting of the FULL REC

All research in human subjects other than those which the REC has the authority to review and approve by expedited review (and elects to review and approve by expedited review) or is exempt from REC review **MUST** be reviewed at a convened meeting of the full REC. (See below for research that can be reviewed by Expedited Review and research that may be Exempt from REC review.)

6. Research that may be Reviewed by the REC by an EXPEDITED Review Process

Research that may be reviewed by an expedited review process (review by the REC Chairman) must **NOT** involve more than minimal risk and may **NOT** involve more than a minor change in a research project during an approved project period. Categories of research that RECs have the authority to approve by expedited review are itemized below. It should be noted that the KFSH&RC REC has the authority to be more stringent and may require that full review rather than expedited review be used for any of these categories.

A. Categories of new and continuing research that may be reviewed by the REC through an Expedited Review Procedure:

(1) Clinical studies of drugs and medical devices only when condition (a) or (b) is met.

(a) Research on drugs that are registered at the Ministry of Health of Saudi Arabia. (Note: Research on marketed drugs that significantly increases the risks or decreases the acceptability of the risks associated with the use of the product is not eligible for expedited review.)
(b) Research on medical devices that are cleared/approved for marketing and the medical device is being used in accordance with its cleared/ approved labeling.

(2) Collection of blood samples by finger stick, heel stick, ear stick, or venipuncture as follows:

(a) from healthy, non-pregnant adults who weigh at least 110 pounds. For these subjects, the amounts drawn may not exceed 550 ml in an 8 week period and collection may not occur more frequently than 2 times per week; or
(b) from other adults and children, considering the age, weight, and health of the subjects, the collection procedure, the amount of blood to be collected, and the frequency with which it will be collected. For these subjects, the amount drawn may not exceed the lesser of 50 ml or 3 ml per kg in an 8 week period and collection may not occur more frequently than 2 times per week.

(3) Prospective collection of biological specimens for research purposes by noninvasive means:

(a) hair and nail clippings in a nondisfiguring manner;

(b) deciduous teeth at time of exfoliation or if routine patient care indicates a need for extraction;

(c) permanent teeth if routine patient care indicates a need for extraction;

(d) excreta and external secretions (including sweat);

(e) uncannulated saliva collected either in an unstimulated fashion or stimulated by chewing gumbase or wax or by applying a dilute citric solution to the tongue;

(f) placenta removed at delivery;

(g) amniotic fluid obtained at the time of rupture of the membrane prior to or during labor;

(h) supra- and subgingival dental plaque and calculus, provided the collection procedure is not more invasive than routine prophylactic scaling of the teeth and the process is accomplished in accordance with accepted prophylactic techniques;

(i) mucosal and skin cells collected by buccal scraping or swab, skin swab, or mouth washings;

(j) sputum collected after saline mist nebulization.

(4) Collection of data through noninvasive procedures (not involving general anesthesia or sedation) routinely employed in clinical practice, excluding procedures involving x-rays or microwaves. Where medical devices are employed, they must be cleared/approved for marketing. (Studies intended to evaluate the safety and effectiveness of the medical device are not generally eligible for expedited review, including studies of cleared medical devices for new indications.)

Examples:

(a) physical sensors that are applied either to the surface of the body or at a distance and do not involve input of significant amounts of energy into the subject or an invasion of the subject's privacy;
(b) weighing or testing sensory acuity;
(c) magnetic resonance imaging;
(d) electrocardiography, electroencephalography, thermography, detection of naturally occurring radioactivity, electroretinography, ultrasound, diagnostic infrared imaging, doppler blood flow, and echocardiography;
(e) moderate exercise, muscular strength testing, body composition assessment, and flexibility testing where appropriate given the age, weight, and health of the individual.

(5) Research involving materials (data, documents, records, or specimens) that have been collected, or will be collected solely for nonresearch purposes (such as medical treatment or diagnosis).

(6) Collection of data from voice, video, digital, or image recordings made for research purposes.

(7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

(8) Continuing review of research previously approved by the convened REC as follows:

(a) where (i) the research is permanently closed to the enrollment of new subjects; (ii) all subjects have completed all research-related interventions; and (iii) the research remains active only for long-term follow-up of subjects; or
(b) where no subjects have been enrolled and no additional risks have been identified; or
(c) where the remaining research activities are limited to data analysis.

B. Modifications in research that may or may not be reviewed by the REC through an Expedited Review Procedure during an approved project period:

The REC Chairman is authorized to approve by expedited review any change that falls into expedited categories 1 through 7, with the exception of interviews and surveys with children.

Modifications to the protocol or consent form that the REC Chairman is **NOT** authorized to approve by expedited review include:

(1) Addition of a new drug
(2) Addition of a new device
(3) Addition of an invasive procedure
(4) Increase in medication dose or a decrease in dose that may increase the risk
(5) Addition of vulnerable subjects as a study population
(6) Prolongation of the patient's participation in the study other than for observational purposes
(7) Change in the inclusion/exclusion criteria which may involve incorporation of populations at greater risk
(8) Identification of new potentially significant risks
(9) Collection of additional blood samples that exceed the limits set in expedited category

7. Research that may be EXEMPT from REC Review

Some very specific forms of research may be exempt from REC review and may not require a subject's consent. It is important to note that the study of existing data (retrospective chart reviews) or the use of discards of tissue taken for clinical reasons can **ONLY** be exempted from REC review **IF** the information is recorded in such a manner that the subjects can **not be identifie**d, either directly or through a code linked to the subject (ie, the identity of the subject is **NOT** or may **NOT** be readily ascertained by the investigator or associated with the information). It is also important to note that the types of research that can be exempted must pose **NO** risks to the subjects.

Research protocols that may be eligible for exemption from REC review **must** be submitted to the ORA for registration and approval by RAC (i.e., the Clinical Research Committee or Basic Research Committee) and **must** contain a statement that justifies the request for exemption.

NOTE: NONE OF THE EXEMPTIONS APPLY TO RESEARCH IN PRISONERS, FETUSES, PREGNANT WOMEN OR HUMAN IN VITRO FERTILIZATION.
NOTE: EXEMPTION (2) CANNOT BE USED FOR RESEARCH IN MINORS IF IT INVOLVES SURVEYS OR INTERVIEW PROCEDURES OR OBSERVATION OF PUBLIC BEHAVIOR.

Categories of research that may be exempt from REC review

(1) Research involving the collection or study of **EXISTING** data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available or if the information is recorded by the investigator in such a manner that **SUBJECTS CANNOT BE IDENTIFIED, DIRECTLY OR THROUGH IDENTIFIERS LINKED TO THE SUBJECTS.**

(2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior UNLESS:
   (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and
   (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

(3) Research conducted in established or commonly accepted educational settings, involving normal educational practices, such as:
   (i) research on regular and special education instructional strategies, or
   (ii) research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.

(4) Research and demonstration projects which are conducted by or subject to the approval of Minister of Health, and which are designed to study, evaluate, or otherwise examine:
   (i) public benefit or service programs;
   (ii) procedures for obtaining benefits or services under those programs;
   (iii) possible changes in or alternatives to those programs or procedures; or
   (iv) possible changes in methods or levels of payment for benefits or services under those programs.

8. Suspension/Termination of Research Projects by the REC

The RAC Bylaws require that all research in human subjects be reviewed by the REC at least annually. Consequently, administrative extensions can **not** be granted beyond the approved project period (maximally one year). Enrollment of new subjects and/or performance of research beyond the REC approved project period is **prohibited** by RAC regulations. Accordingly, any project that has not received the RAC's final approval for continuation, prior to the project's expiration date, will be automatically suspended.

For the safety of subjects who are enrolled in research projects in which investigational therapy is being administered, the RAC do permit short-term continuation of the therapy beyond the RAC approval date **ONLY IF** abrupt cessation of that therapy would be detrimental to the patient's health. Although all investigators are reminded of the upcoming expiration of REC approval of their projects, it is the investigator's ultimate responsibility to ensure that REC approval is continuous. If RAC approval has expired, and a research subject requires the investigational therapy, then it is critically important that the investigator rapidly reinstates the research project.

Reinstatement: Reinstatement and approval of a research project requires that the REC review and approve the following at a convened meeting of the REC:

1. A complete Progress Report;

2. A memo to the RAC Chairman that incorporates the following information:
   a) an explanation of circumstances that led to the failure to submit the application at the appropriate time;
   b) a statement indicating whether patients were enrolled during the period that the project was not RAC approved; **AND**
   c) a statement indicating the number of patients maintained on a therapeutic intervention after the expiration date of RAC approval and why abrupt cessation of that therapy would have been detrimental to each patient's health.

NOTE: Funding Agencies & Sponsors in general require that the RAC notify them of any suspension or termination of a research project. Consequently, it is clearly in the best interest of the research subjects and all investigators that progress report receive RAC approval prior to their date of expiration of RAC approval.

Section III

Informed Consent

1. Ethical Principles Of Informed Consent

The use of patients or healthy volunteers as subjects in research is a **privilege** which carries with it stringent obligations that must be met scrupulously by the investigators. Respect for the rights, dignity and safety of the subjects must be the primary determinant of the researcher's actions. At all stages of a research project involving human subjects, vigilance must be maintained in order not to jeopardize these rights. As autonomous individuals, research subjects have a right to be fully informed about the nature of the research and the extent of their participation. They must be free to agree or to, refuse to participate in the research. In addition, subjects must be free to withdraw their participation at anytime. Circumstances which could put subjects at risk if they withdraw and procedures for withdrawal must be described in the consent document.

Informed consent to participate in a research protocol can only be given by subjects who are fully informed about the protocol and have had all of their questions answered. This requires that informed consent be solicited by someone who is completely familiar with all aspects of the study that relate to the subject's participation including: the rationale for doing the study; eligibility requirements and exclusion criteria; the procedures to be used; costs, risks and benefits of participation; the time frame of participation; alternatives to participation; etc. Informed consent must also be obtained at a time and in an environment that allows the potential subject to review, carefully and fully, the information provided (orally and in writing), to have all questions answered fully and to consider the pros and cons of participation before making a decision.

2. Recruitment of Subjects

Protocols submitted to the RAC for review and approval must specify how subjects will be identified and recruited.

Patients expect that information on their medical condition will be kept confidential, although an investigator may access this information in the conduct of an RAC approved research project (see Section XI, 10, Chart Review Protocols). However, many patients would consider it a serious breach of confidentiality and of medical ethics that someone not involved in their care obtained this information and contacted them. For this reason, permission to recruit a patient as a subject in a research study should be obtained from the patient's physician before the patient is contacted. Where possible, the physician should first get permission from the potential subject to allow the investigator to contact him/her. If this is impractical, a letter can be sent by the physician informing the patient that the investigator would like to contact him/her. The letter should include a reply card to be returned granting or refusing permission.

If the nature of a study makes use of these procedures unrealistic, this must be fully justified to the REC by the investigator. Such studies may require very narrow time windows for collection of data or involve large numbers of physicians and potential subjects. In addition, it must be clear that the patients would very likely not be distressed by being contacted by someone not involved in their care. For such studies, individual or blanket permission may be obtained from the physician(s) (preferably in writing) to contact a particular patient or all of the physicians' eligible

patients. The investigator may then contact the patient(s) directly, without previous notification, indicating that their physician had given permission for the contact. If blanket permission is obtained and used, the investigator must inform the physician each time that a patient is contacted.

If recruitment of family members is planned, for confidentiality reasons, the index patient should not be asked to provide the name of the family member(s) directly to the investigator. Rather, the index patient should be asked to contact family members. If the family member is willing to speak with the investigator, then the family member should be asked to contact the investigator. Therefore, when research will include family members the protocol and consent form must indicate how family members will be contacted.

Subjects recruited for a research study must be free of any outside influences while deciding whether to participate. Even in the absence of overt coercive or inducing statements, an element of coercion may be introduced because of the relationship between the potential subject and the investigator. Patients may feel obliged to agree because their physicians have asked them to. Co-workers in an investigator's laboratory, office or clinic may agree in order to preserve the good will of the investigator. Prospective research subjects must be re-assured, verbally, that refusal to participate will in no way affect their care. In addition, **the RAC strongly feels that workers directly supervised by an investigator should not be recruited to serve as control subjects.** Co-investigators and colleagues (in the specific sense of having a comparable position in the institution) are appropriate potential control subjects.

3. Advertisement For Research Subjects

All forms of advertising or dissemination of information for the purpose of recruitment of subjects into a research protocol, including newspaper advertisements, posters, and fliers, or newspaper articles which include recruitment information must be approved by the RAC prior to distribution or publication of the material.

In addition, letters to fellow physicians, both within and outside of the institution, must be approved.
The following information must be contained in the advertisement:

1) The purpose of the study;
2) The characteristics which would qualify an individual for enrollment;
3) A straightforward description of any and all benefits to the subjects;
4) The RAC number of the protocol and the expiration date ;
5) The name and number of whom to contact for further information.

Nothing in the text should serve as an undue inducement to potential subjects to enter the study. Such inducements might include claims (explicit or implicit) about safety or efficacy of an investigational drug or device, equivalence or superiority to existing treatments, or closer monitoring of the patients condition. The availability of compensation (monetary or other) for time and effort related to participation can be included without mention of any specific amounts.

4. Guidelines for Consent Documents

NOTE:
Only consent documents officially dated with inclusive RAC approval dates may be used in the conduct of human subject studies. When RAC approval is granted, the consent documents will be stamped with an approval period. However, in the case of applications for sponsored support (ie, NIH, KACST), consent documents will be held until official notification of funding is received. Under no circumstances may consent forms be used beyond their expiration date.

The forms (see Appendix 1. Consent documents for Research Involving the Administration of Drugs, Use of Devices or Performance of Procedures, and Appendix 2.Consent for Research with No Direct Benefits to Participants) used in soliciting consent must provide, in writing, all of the information that the subject would reasonably want about the study and the extent of his/her involvement in it.

An investigator shall seek such consent only under circumstances that provide the prospective subject, or the representative, sufficient opportunity to consider whether or not to participate, and that minimize the possibility of coercion or undue influence.

The informed consent, whether oral or written, may not include any exculpatory language through which the subject, or the representative, is made to waive, or appear to waive, any of the subject's legal rights, or releases, or appears to release, the investigator, the sponsor, the Institution or its agents, from liability for negligence.

By completing these documents, as suggested below, all of the international requirements for informed consent should be fulfilled.

Research Participant Information Sheet: This information sheet explains details of the research that are unique to the particular study and therefore must be written by the Principal Investigator. The Research Participant Information Sheet must incorporate the following components, including the appropriate subject headings for each component:

TITLE OF PROJECT: Place at the top of the first page of the consent document.

A. PURPOSE OF THE RESEARCH:
Begin by writing "You are being asked to participate in a research study. The purpose of this study is …". Then state "You qualify for participation in this study because…".

B. DESCRIPTION OF THE RESEARCH:
Must be written in language that is fully understandable to an individual with a sixth-grade education. Thus, scientific terms must be defined in language easily comprehensible to the lay person, (see Glossary of Lay Terms for Use in Preparing Informed Consent Documents).

1) describe the study design.

2) describe specifically what will be required of the subject.
3) describe which procedures or tests are being performed solely for research, and which are being done for clinically indicated reasons. Only describe (in detail) those procedures or tests (or components thereof) that are being done for research purposes.
4) Indicate if the drug, device or procedure is approved by the Food and Drug Administration or similar agencies, or not approved for the purpose proposed in this study.
5) indicate the approximate number of subjects to be enrolled.
6) indicate the duration of the subject's participation.

NOTE: Under most circumstances patients must be enrolled in a study prior to any screening evaluations. This must be reflected in the consent form. If it is found that the patient does not qualify, then he/she should be terminated from the study. The rationale for enrolling patients prior to evaluation is that it is inappropriate for patients to have to be responsible for the costs associated with such evaluations (eg, examinations and tests), subjected to any risks associated with screening procedures, or to be personally responsible for the costs associated with treatment for any adverse reactions.

C. POTENTIAL RISKS AND DISCOMFORTS:

Describe all potential risks and discomforts whether major or minor. Estimate the likelihood and severity of such risks and describe the reversibility of adverse reactions. If blood drawing is included in the study, be sure to indicate the risks involved (eg, fainting, pain, hematoma, etc). A statement should be included, if applicable, that participation may result in currently unforeseeable risks to the subject (and possibly the foetus or embryo, in the event of pregnancy).

D. POTENTIAL BENEFITS

Describe the potential benefits of participation for the subject, the general benefits for science, the population at large, or other patients with similar diseases. Estimate the likelihood of such benefits, followed with "Allah's will" . Do not include information regarding compensation or procedures or medications provided at no cost.

E. ALTERNATIVES TO PARTICIPATION (where applicable):

The Principal Investigator should state: "The following are possible alternatives to participation…" and/or "Treatment comparable to that being proposed in the context of this study is/is not available to you outside of such a study." If the study does not involve treatment and there are no alternatives, simply state "The alternative is not to participate."

F. COSTS/REIMBURSEMENTS:

Indicate:

1) whether the subject will incur any costs by participating, and
2) whether the subject will receive any reimbursement for time and expenses.

G. TERMINATION OF PARTICIPATION:

Include the following: "You may discontinue participation in the study at any time without penalty or loss of benefits to which you are otherwise entitled."

When applicable, describe potential consequences of a subject's decision to withdraw and procedures for early termination. Explain circumstances under which participation may be terminated by the investigator without the subject's consent.

H. COMPENSATION/TREATMENT

You may include **ONE** of the following standard statements, as appropriate:

For minimal risk protocols: "If you believe that you have suffered an injury related to this research as a participant in this study, you should contact Dr _____ at telephone # _____.

For more than minimal risk protocols: If the subject might receive direct benefit from participation: "In the event of injury resulting from your participation in this research study, short-term hospitalisation and professional attention will be made available to you at your expense. Financial compensation from KFSH&RC will not be provided. If you believe that you have suffered an injury related to this research as a participant in the study, you should contact Dr _____ at telephone # _____**.**

For more than minimal risk protocols, if the subject is not expected to receive direct benefit (eg, controls): "In the event of injury resulting from your participation in this research study, short-term hospitalisation and professional attention, if these are required, will be provided at the KFSH&RC, at no cost to you. Financial compensation from KFSH&RC will not be provided. If you believe you have suffered an injury related to this research as a participant in this study, you should contact Dr _____ at telephone # _____.

I. VOLUNTARY PARTICIPATION:

Include the following: "Participation in the study is voluntary. If you decide not to participate this will not affect your ability to receive medical care at KFSH&RC, or to receive any benefits to which you are otherwise entitled."
"Any new information that develops during this study, which might affect your decision to participate, will be given to you immediately."

"A signed copy of this consent form will be given to you."
The entire section of voluntary participation should be highlighted.

J. CONFIDENTIALITY:

Include the following: "Your identity as a participant in this research study will be kept confidential in any publication of the results of this study. Your medical record in connection with this study will be kept confidential to the extent permitted by the law. However, your medical record may be reviewed by government agencies or the agency sponsoring this research, if required by applicable laws or regulations."

K. CONTACT PERSON(s):

Include the following: "If you have any questions, at any time, about this research, please contact Dr _____ at telephone # _____. If you still have questions, you may discuss them with a member of the section of Assurance & Compliance, Office of Research Affairs, telephone # _____.

INSTRUCTIONS TO INVESTIGATORS

There are circumstances under which some of the elements in this Form may be altered or waived (see Request for Modification of Informed Consent) and/or requirements for the consent form to be signed may be waived, (see Request for Modification in Documentation of Informed Consent). The signature of at least one parent or guardian, or more depending on the risk, is required for children under 18 years-of-age to participate in the study. In addition, elementary school-age children may provide oral assent, and middle school age children may provide a written assent. A witness signature is only needed when the subject or the subject's guardian cannot read. The English and Arabic versions of the consent form should be written side-by-side on the page.

5. Who May Obtain Consent

Obtaining informed consent from a subject is the responsibility of the principal investigator (P.I.). The P.I. may delegate this task to a named co-investigator (Co-Inv) on the project who is familiar with all aspects of the information to be provided the subject. Indeed, for studies involving more than minimal risk, or procedures other than those performed for routine clinical care or examination, consent should be obtained by the P.I. or the Investigator performing the procedure.

The RAC recognizes that there may be projects in which it would be impracticable and might prevent the research from being performed if only a P.I. or Co-Inv. could obtain consent . For such projects the REC may allow delegation of this responsibility to other appropriate professionals. Requests to delegate this responsibility will be considered by the REC on a case-by-case basis. Delegated individuals must be specifically trained by the P.I. or Co-Inv to be familiar with all aspects of the protocol, the information to be provided the subject, and how to obtain informed consent. The names and professional appointments of delegates (e.g., Fellow, Senior or Chief Resident, etc.) must be submitted for REC approval when the delegates are chosen and trained and before they obtain any consents. Unlike investigators (principal or co-investigators), they are not responsible for the conduct of the research.

6. When and Where Consent Should Be Solicited

The setting in which consent is requested and obtained must be one in which the potential subject can consider the request as an autonomous individual, free from time constraints or a sense of obligation or dependency. For all but emergency care protocols it is inappropriate to solicit consent immediately before beginning a procedure or instituting a therapeutic regimen. A crowded waiting room, public area or Operating Room holding area are examples of

inappropriate sites. Patients who have received drugs (e.g., sedatives or pre-anesthetic medication) that may impair their ability to understand and weigh the information provided are clearly not capable of giving informed consent.

Research proposals must detail where and when informed consent generally will be obtained; e.g., Pre-admission screening, day-of-admission, waiting room, hospital room, emergency room, evening before surgery, etc.

At all stages of the consent process, every effort must be made to avoid coercion in any form or to any degree.

7. The Consent Process

The potential research subjects are given the information contained in the consent form both verbally and in a copy of the complete form itself. They are allowed time to think about the request, to ask questions and have them answered to their satisfaction. If they agree to participate, the subjects sign in the appropriate place. The person obtaining consent (investigator or delegate) signs the attestation at the end of the form after the subject signs.

One copy of the full completed and signed consent form must be given to the subject, and a second copy must be placed in the patient's chart. The original completed and signed consent form must be retained for inclusion in the **P.I.'s research records.**

All subjects who sign a consent form are considered to have entered the study. Their consent forms must be retained by the P.I. even if they are later withdrawn for any reason or do not actually participate in the project. (See RAC 7.5 Policy on Research Records Retention & Access).

Persons delegated to obtain consent by a P. I. should make every effort to notify the P.I. of the recruitment of a subject before that subject begins participation in the research project. The P.I. should also ascertain that a properly completed consent form, as required for the particular protocol, has been obtained by the delegate(s) and that copies have been distributed as required above.

8. Required Signatures

1) Patient or the patient's Surrogate.

2) Witness: a witness is only needed when a third party verbally transmits the consent form to a subject who is unable to read the consent. The third party must sign as a witness to affirm that the consent was accurately translated and that the subject understood the information provided.

3) Investigator's signature or the signature of an REC approved delegate.

9. The Effective Period Of Signed Consent

Although an individual consent document is stamped with the period of REC approval (up to 12 months), the consent does not need to be re-signed by the subject on an annual basis if it is explicitly stated in the consent document that the duration of the study will be greater than one year. However, consent must be re-obtained if:

1) the consent document has been altered or amended since the subject signed the document; or

2) the subject was a minor at the time of entry into the study and has since attained the age of maturity;

3) the original consent document did not specify the duration of the subject's participation in the study.

Section IV

Modification of Informed Consent

(Waiver of Informed Consent)

In general, RAC Bylaws require that research subjects sign a consent document. Under very specific circumstances, the REC may totally waive the requirement for obtaining informed consents.
The information below is intended to provide investigators with clear guidelines regarding instances where informed consent may be waived. Investigators are cautioned that each waiver that is requested will be considered at a convened meeting of the REC on a case-by-case basis within the framework provided by these guidelines, and that the REC will consider a broad spectrum of factors before a waiver is granted.

A waiver of informed consent can only be granted when **ALL** 4 of the following are applicable:

1) no more than minimal risk to the subject is involved; and

2) the research could not practically be carried out without the waiver, and

3) the research will not adversely affect the rights and welfare of the subject, and

4) the subjects will be provided with additional pertinent information after participation, whenever appropriate.

Definition of **minimal risk.** The probability and magnitude of harm or discomfort anticipated in the research are not greater in and of themselves than those ordinarily encountered in daily life or during the performance of routine physical or psychological tests.

When requesting a waiver of informed consent, the ORA form "REQUEST FOR MODIFICATION OF INFORMED CONSENT" must be completed and submitted with the application form. A copy of this form is included in the appendix of this manual (Appendix 6).

Section IV

Modification in the Documentation of Informed Consent

(Waiver of Signed Consent)

In general, RAC Bylaws require that research subjects sign a consent document. Under very specific circumstances, the REC may waive the requirement for the subject' s signature on a consent document The information provided below is intended to provide investigators with clear guidelines regarding instances where the REC may waive the need for a subject' s signature on a consent document. Investigators are cautioned that each waiver that is requested will be considered at a convened meeting of the REC on a case-by-case basis within the framework provided by these guidelines, and that the REC will consider a broad spectrum of factors before a waiver is granted

Signed consent may only be waived in those situations where either:

1) The research presents no more than minimal risk of harm to the subject AND the research involves no procedure for which written consent is normally required outside of the research context, OR

2) The consent document would be the ONLY identifiable link between the subject and the research AND there would be potential harm to the subject if the confidentiality of the consent document were breached.

Situations in which a waiver of signed consent may be granted include:

1) drawing of additional blood samples when blood is already being obtained for clinical reasons or blood donation;

2) sampling of additional bodily secretions when such secretions are already being sampled;

3) questionnaires

4) interviews

Investigators must be aware that procedures which physicians consider to be minimal risk are not necessarily viewed as such by patients or subjects. They should be sensitive to the subject' s perception of the procedure when classifying procedures as minimal risk. Thus, it is unlikely that the REC would approve a waiver for any invasive procedure, (e.g. venipuncture, catheterization, skin biopsy, etc.) that is performed solely for research purposes despite the fact that such procedures do not normally require written consent.

When requesting a waiver of signed consent, the ORA form "Request for Modification in Documentation of Informed Consent" must be completed and submitted with the application form. A copy of this form is included in the appendix of this manual (Appendix 7).

Waiver of Signed Consent Format

A waiver of signed consent does not exempt an investigator from obtaining informed consent. The first part of the consent form (Research Participation Information sheet) is read to the patient

and signed by the principal investigator or a person delegated to obtain informed consent. A copy of the signed Information Sheet must be given to the subject, a copy should be placed in the subject' s chart, and the investigator must keep the original form in his/her research records. All of the elements of informed consent required in signed consent must be included. At the end of the information sheet include the following paragraph verbatim and include the signature lines:

I have fully explained to _____the nature and purposes of the above-described research program. I believe that he/she understands the nature, purposes, and any risks of these studies. I have also offered to answer any questions relating to these studies and have fully and completely answered all such questions.

_____ _____

Signature Date

_____ _____

Print Name Title

Section V

Pediatric Subjects in Research Studies

The enrollment of pediatric subjects requires that the research participant information sheet be worded as "You/your child". This is required because permission must be obtained from the parent and, in instances as specified below, the assent of the child must be obtained. In addition, documentation must be kept that assent was obtained freely and without coercion. (see section 3 below)

1. Minors are Vulnerable Subjects

Vulnerable subjects encompass children, pregnant women, fetuses, prisoners, educationally or economically disadvantaged persons, and individuals with diminished mental capacity. If vulnerable subjects are to be recruited and subsequently enrolled into a research project they must, of course, be provided all of the protections that are required for every other research subject. Furthermore, additional, even more rigorous protections must be provided for those who are vulnerable.

A. Additional Protections for Children

1) For research not involving greater than minimal risk:
Research that presents no greater than minimal risk [defined as the probability and magnitude of harm or discomfort are not greater than those ordinarily encountered in daily life or during the performance of routine physical or psychological tests] may only be performed if adequate provision is made for obtaining the assent (an affirmative agreement to participate in the research) of the child and the permission of the parent or guardian.

2) For research involving greater than minimal risk but presenting the prospect of direct benefit to the individual subjects:
Research that offers direct benefit to the individual and is likely to contribute to the subject's well being but has greater than minimal risk may only be performed if:

a) the risk is justified by the anticipated benefit;
b) the relation of the anticipated benefit to the risk is at least as favorable to the subjects as that presented by available alternative approaches; and
c) adequate provision is made for obtaining the assent of the child and the permission of the parent or guardian.

3) For research involving greater than minimal risk and no prospect of direct benefit to individual subjects, but likely to yield generalizable knowledge about the subject's disorder or condition:
Research that involves greater than minimal risk but likely to yield information regarding the subject's condition may only be performed if:

a) the risk is a minor increase over minimal risk;
b) the research presents subjects with experiences that are commensurate with those in heir actual expected medical, dental, psychological, social or educational situations;

c) the research is likely to yield generalizable knowledge of vital importance to understanding or ameliorating the subject's condition; and
d) adequate provision is made for obtaining the assent of the child and the permission of the parent or guardian.

4) For research not otherwise approvable which presents an opportunity to understand, prevent, or alleviate a serious problem affecting the health or welfare of children:

Research in this category may require the approval of the Ministry of Health in addition to the RAC approval.

B. Requirements for permission by parents or guardians and for assent by children:

1) Provision must be made for soliciting the assent of children when in the judgment of the REC the children are capable of providing assent.

a) It is important to note that failure to object to participate as a research subject can not be construed as assent.
b) When applicable, a Certification of Assent form must be completed to document that assent was freely obtained and without any coercion. Investigators must maintain each signed Certification of Assent form on file along with the consent document that was signed by the parent or guardian and other research records relevant to the individual research subject. (See section 3, Documentation of assent, below)

2) Provision must be made for soliciting the permission of each child's parents or guardian and the permission must be documented in the consent document.

a) The REC may require permission of only one parent if the research involves no greater than minimal risk or involves greater than minimal risk but presents the prospect of direct benefit to the individual subjects.
b) If the research involves greater than minimal risk and offers no prospect of direct benefit to individual subjects or the research is not otherwise approvable but presents an opportunity to understand, prevent, or alleviate a serious problem affecting the health or welfare of children, permission must be obtained from both parents, unless one parent is deceased, unknown, incompetent, or not reasonably available, or when only one parent has legal responsibility for the care and custody of the child

3) Under very special circumstances the REC may waive the requirement for parental consent.

Waivers can only be granted for conditions or for a subject population for which parental or guardian permission is not a reasonable requirement to protect the subjects (e.g. neglected or abused children), if an appropriate mechanism for protecting the child is provided, and if the waiver is not inconsistent with Regulations and the Laws of the Kingdom of Saudi Arabia.

2. Pediatric Assent Guidelines

All pediatric research subjects should be fully informed about a research study, in language appropriate for their age, maturity and previous experiences, whether assent is to be requested or not. This information can be provided verbally and should include all tests and procedures to be performed, frequency of interventions, duration of participation in the study, risks, discomforts and potential benefits. The child should be encouraged to ask questions, all of which should be answered.

Depending on the nature of the study and on the maturity, psychological state and previous experiences of the child, assent should be obtained, and documented, from children ages 14 and older. For children ages 12-13, assent should be obtained and documented unless the child's pediatrician considers him/her to be too immature to provide true assent. Children ages 7-11 should be fully informed about the research, using language appropriate to their age or maturity, and documented assent should be obtained from those deemed capable of making a meaningful decision. Below age 7, information about the study should be provided in a manner appropriate to the child's age, but documented assent need not be obtained.

When enrolling minors into therapeutic research studies of potential therapies for their severely debilitating or life-threatening illness, the patients should be fully informed about the nature of the study and should be included in discussions of their participation, as is common pediatric practice. In such situations, however, documented assent need not be obtained since the wishes of parents or guardian would prevail. It would be inappropriate to ask for assent since a refusal by the child could be over-ruled by the parents or guardian.

When protocols involving minors as subjects are submitted for REC approval, they should clearly indicate the P.I.' s assessment as to which of the four research categories (section 1A,1-4, above) the study belongs, and from which subjects documented assent will be obtained.

3. Documentation of Assent

That assent was given by the subject must be documented by a witness who is not a family member and not associated with the research study, using the "Certification of Assent of Minor" form (see Appendix 8) The signed certification must be retained in the study research records.

If documented assent is not obtained from minors, ages 12 and older, the reason for not obtaining assent must be noted in the research record for that subject.

Section VI

Reporting Adverse Events

1. Definitions

A. An *adverse event* (or *adverse reaction*) is defined as an event or occurrence not generally anticipated, including a change in the frequency or intensity of a reaction, as a consequence of the intervention being used in the research study.

B. A *serious adverse event* is an advent event that:

a) results in death,
b) is life-threatening or potentially life-threatening,
c) requires inpatient hospitalization or prolongation of hospitalization,
d) results in permanent or significant disability/incapacity,
e) results in a congenital anomaly/birth defect,
f) the investigator considers significant.

C. An *unexpected adverse event* is any adverse advent that is not listed in the consent form or the proposal and includes events that are unexpected in occurrence, severity, or frequency.

2. Reporting

A. **Any Unexpected Serious Adverse Event (USAE)**, which occurs during the study, or in a post-study period of reasonable duration, **regardless of treatment group or relationship to the research,** must be reported to the ORA within two working days of the occurrence of the event using the USAE Report Form (see Appendix 9) and must include the following information:

1) the RAC number of the project;
2) the Medical Records number of the subject;
3) a descriptive narrative of the event;
4) a descriptive narrative of any further action taken as a result of the event;
5) indicate the outcome of the event;
6) a statement as to whether the investigator feels the event was definitely related to the subject's participation in the research, probably related, possibly related, or definitely not related and a statement as to whether the consent form has to be modified to incorporate the adverse event (if not already enumerated).
7) if the sponsoring agency (i.e. - industry or governmental agency) requires that a special form be completed and submitted, the investigator should forward a copy of that form to the ORA

B. All other adverse events shall be reported in the Progress and Final Reports.

Section VIII

Emergency Use of an Investigational Drug or Device

The emergency use is defined as the use of a test article (e.g. an investigational drug, biologic, or device) on a human subject in a life-threatening situation in which no standard accepted treatment is available and there is not sufficient time to obtain RAC approval for the use of the test article.

The procedure for obtaining permission for emergency use of an investigational drug or device is as follows:

When a physician/investigator concludes that there is a life threatening situation and the only course of treatment that is available for a given patient is one that is not on the formulary/not registered in the Kingdom and one for which either:

a) no RAC approved protocol exists; or

b) the patient in question is ineligible for participation in an RAC-approved protocol(s), the physician/investigator may petition for "emergency use" of the article in question.

The physician/investigator must request permission for emergency use of a test article (drug or device) in writing to his/her Chairperson or Division Chief. This letter must include a description of the patient's condition and an explanation as to why the test article is the only acceptable course of treatment the patient can receive. Upon receiving the written approval of the Department Chairperson or Division Chief, the physician/investigator must take this letter, along with an executed KFSH&RC Form B to the Chairman of the Pharmacy & Therapeutics Committee. The P&TC will notify the ORA within five (5) working days of the approval of such a request.

When granted, "emergency use" will allow that physician/investigator to treat that patient for one course of treatment. If it appears that other patients might require use of a particular article, then the physician/investigator(s) must submit a research proposal to the RAC for review and approval.

Regulations for the protection of human subjects do not permit research activities to be started, even in emergencies, without prior RAC review and approval of a research protocol and applicable consent forms. **Thus, if a patient is treated via this emergency use mechanism, then that patient, and any data derived from the treatment of that patient, may not be used for research purposes since there was no prior RAC review and approval of the project.**

Section IX

Guidelines for Enrolling Subjects in Studies When Those Subjects May Have Diminished Mental Capacity

In order that a subject give his/her Informed Consent to enroll in a research project, that individual must fully understand all aspects of the study and his/her rights as a research participant. This can only be done if subjects have the mental capacity to understand. If there is a possibility that the subjects may have diminished capacity, their mental capacity must be assessed.

For research protocols that involve subjects who may lack the capacity to give informed consent or subjects whose condition creates a reasonable likelihood of development of impaired capacity while on the study, special measures must be instituted to assess capacity initially and/or to monitor it during the study.

In their written submissions the Principal Investigator should employ the following topic headings, or some other device, which will enable the members of the REC to more easily identify and evaluate how these guidelines are being met. If any study cannot conform to the guidelines the Principal Investigator must specifically describe the deviation and the reason for it:

1. Assessment of Capacity

For individuals who may have diminished mental capacity there must be an assessment of the subject's capacity to consent to participate prior to enrolling subject in the study. For all subjects in studies involving individuals with psychiatric illness, and for any other subject in any other study for whom there is diminished mental capacity or a question of diminished capacity**, the assessment should be undertaken by a physician not associated with the study and whose professional training and credentials are suitable given the nature of the subject's illness and the nature of the study.** This physician must be completely independent from the study and the physician' s name should not appear as an author on any published paper reporting on the study as that might lead to the appearance of a conflict. The protocol must indicate how the assessment of capacity will be undertaken. Factors to be considered in assessing capacity include: the prospective subject's medical condition, the voluntariness of the subject's consent in light of the subject's hospitalization or relationship with the physicians conducting the study, as well as the subject's ability to assess the information provided to him/her and make informed and knowing decisions. **In the event the subject lacks capacity to consent to participate, consent must by given by an individual legally authorized to consent on behalf of the subject.**

2. Monitoring

If there is a likelihood that a subject's capacity may become impaired during the course of a study, then the specific mechanisms for monitoring the subjects to determine if there is a decrease in capacity must be detailed in the protocol and/or the consent form.

Section X

Guidelines for Withdrawing Drugs From Subjects

The REC has adopted the following guidelines for any research protocol involving the withdrawal of drugs from human subjects, particularly the withdrawal of neuroleptics from psychiatric subjects. For purpose of these guidelines, withdrawal of medication includes a washout study, a withdrawal study, or a study that entails a washout or drug withdrawal that may be followed by administration of a drug or placebo.

1. Assessment of Capacity

If there is any question of the subject' s capacity to give informed consent or the possibility of deterioration and loss of capacity during the study see **Section IX.**

2. Assessment of Clinical Suitability

A qualified physician/investigator must assess the subject, and determine the subject's clinical suitability to participate in the study.

3. Enrollment

At the time of a subject's enrollment in a study, the informed consent process must take place and must be consistent with institutional guidelines for enrolling individuals in studies. Once a subject or surrogate signs the consent form, the subject is considered to be enrolled in the study. Any change in the subject's therapeutic regime, which may be necessary, may only be made **after** the subject has signed the consent form agreeing to participate in the study.

4. Monitoring

The mechanisms for monitoring the subject while on the protocol must be detailed in the research protocol (and the consent form) as described below. Those mechanisms must be appropriate given the subject's clinical condition and the nature of the study. **The subject must be seen and assessed by an independent physician with sufficient frequency to assure the subject's health will not deteriorate while on the study.** This physician must be completely independent from the study and the physician' s name should not appear as an author on any published paper reporting on the study as that might lead to the appearance of a conflict. Any protocol not requiring the periodic personal assessment by an independent physician must specifically state the reason for such omission. For some protocols, particularly outpatient psychiatry protocols, an additional monitor, a "home monitor" should be identified who can evaluate the subject on a more frequent basis. The "home monitor" should be a reliable adult relative or friend who lives in close proximity to the subject and who is capable of reporting changes in the subject' s status to the investigators.

The protocol and consent form(s) must indicate:

a) who will do the monitoring;

b) the frequency of monitoring, including a justification for the intervals between monitoring that is dependent on the disease process;

c) the site at which monitoring will be done (clinic, hospital, doctor's office, home); and

d) an itemization of the tests, lab data, examinations, etc. that will be used to monitor the subject.

5. The Content of the Consent Form

The consent form and the consent process must comply with all the requirements for consent forms in human subject research. In addition, specifically with respect to studies in which a subject will be withdrawn from a therapeutic medication, it is critical that the consent form:

a) Identify:
   (1) the risks associated with the withdrawal from the subject's current medication.
   (2) the risks of being maintained on a placebo (if applicable);
   (3) the risks of the experimental drug(s).

b) Describe the symptoms and assess the risks of the occurrence of those symptoms during the period of withdrawal, or while receiving placebo or experimental drug.

c) If the subject is expected to self-monitor for recurrence of the symptoms, the procedure for such self-monitoring should be clearly set forth. If there will be additional monitoring, the subjects must be told:
   (1) who will do the monitoring,
   (2) the frequency of the monitoring,
   (3) the place where monitoring will be done and
   (4) the specific tests, lab data and/or examinations that will be done for the purpose of monitoring.

d) The actual purpose of monitoring (to assess possible relapse) should be stated and the specific symptoms, which are being looked for, should be listed.

e) The reversibility of any recurrence of symptoms as the result of medication withdrawal or placebo administration must be specifically described as well as the clinical steps that will be necessary to return the subject to the subject's former baseline.

f) The threshold for initiating treatment and removal from the study should be described as well as how the decision to return the subject to the subject's medication will be made and by whom.

g) It must be made clear to the subject that not only does the subject (or an appropriate surrogate) have the right to decide to withdraw from the study, but the subject also has the right to be returned to an appropriate clinical regime. In the event the subject's participation ends because the study ends, the subject and surrogate must be advised whether the subject will be returned to the subject's old medication, and whether the experimental drug, should it be useful, be available to the subject.

Section XI

Policies of the Research Advisory Council of the KFSH&RC

1. Compensation To Normal Volunteers

While the RAC recognizes that an offer of payment may encourage a greater willingness and response to participate, the importance of recruiting voluntary subjects in non-therapeutic research justifies such payments. Since almost any amount of such payment could be considered a coercive inducement in certain circumstances, the RAC recognizes that such payments must be reasonable and not excessive. The RAC rejects the idea that the amount of payment shall be based on an evaluation of risk and/or a fixed schedule of payment. The principal investigator will be expected to justify the amount of any payment to be made to a consenting subject, taking into account the following factors:

1) Out of pocket expenses borne by the subject for travel, meals, childcare, etc.
2) Degree of anticipated discomfort or inconvenience
3) Duration of the study and impact on work-related income and time lost from work.

Not withstanding these factors, the RAC believes that no amount of compensation or payment can be provided which will serve to coerce an informed subject to consent to participate. The REC will review the compensation offered and ascertain the reasonableness of the justification detailed by the principal investigator in the application. Additionally, in order to minimize the possibly coercive nature of payment, the investigator will indicate in the consent form **"You will receive SR _____for your time and the expenses that you incur**."

2. Exercise Testing In Research Protocols

All research protocols, which involve exercise stress testing in research subjects, healthy or otherwise, are required to incorporate the criteria listed below. Additionally, investigators will be required to sign, on a yearly basis, an affidavit certifying a willingness to comply and indicating the name of the individual who will be performing the tests.

Exercise testing, while not without some risk, is an appropriate tool for subject evaluation in research protocols, when performed with proper equipment and when properly supervised. Since the proposed tests will be administered for research purposes, and not for clinical indications, these RAC requirements, in some instances, may exceed published guidelines for clinical testing, in order to reduce the risk/benefit ratio to a minimum.

All exercise protocols submitted to the RAC for review and approval should provide the following information:

1) inclusion and exclusion criteria;
2) training and experience of supervisory personnel;
3) site of testing;
4) a detailed description of the equipment to be used and emergency supplies available at the test site;
5) exercise protocol to be followed;
6) test end point and criteria for early termination.

The information provided to subjects in the consent document should fully describe the procedures to be followed and should provide an estimate of the risks involved. Subjects should be informed that they are not undergoing a full, diagnostic stress test. Should they require such a test for medical reasons, it should be administered at an appropriate clinical facility. Subjects should be informed of the results of the research exercise test, and where relevant, appropriately counseled.

Pre-entry screening should include a medical history, physical with resting 12 - lead ECG and lab tests, with particular emphasis on cardio-pulmonary, metabolic and relevant orthopedic problems. The results should be reviewed by an attending physician, who will approve entry of the subject into the study.

A. Equipment

Appropriately calibrated and tested exercise equipment should be used. An ECG capable of providing recordings interpretable for rhythm and ischemic changes during the test must be used. A 12-lead record is required, except in low risk subjects or subjects in whom a recent diagnostic stress test was negative, where fewer leads may be appropriate. Continuous, oscilloscopic monitoring and periodic strip recording must be available for all subjects.

Appropriate blood pressure monitoring at frequent interval should be performed.

All subjects should be monitored (ECG and blood pressure) for at least 10 minutes after termination of the exercise period.

An emergency resuscitation cart, including a tested and maintained defibrillator, airways, ambubag, oxygen, I.V.'s, suction and appropriate drugs must be available at the test site. An emergency procedure flow chart with necessary telephone numbers, should be available at the test site. Evacuation procedures should be specified.

B. Supervisory Personnel

Personnel supervising exercise tests should be familiar with the test site, the apparatus being used and emergency supplies available. They should have taken part in emergency drills, at the test site.

Men under the age of 35, with no known risk factors, premenopausal women under the age of 45, with no known risk factors, or subjects whose screening exercise stress test was negative, can be supervised by professional personnel with training and experience in supervision of clinical, diagnostic stress testing and in emergency procedures. A physician, fully licensed to practice medicine at KFSH&RC , with training and experience in resuscitation must be available within one floor of the site, via stairs.
Tests of men 35 or older, women 45 or older or postmenopausal, or any subject with known risk factors, must be supervised by a fully licensed physician, with documented training and experience in stress testing, equivalent to that required by The American College of Cardiology for Cardiology certification, and with current certification, who will be present in the test room. If the supervising physician does not have attending status, an attending physician must be available, as above.

C. Risk Factors

Risk factors include, but are not limited to, diabetes, hypertension, smoking, significant hypercholesterolemia, or significant cardiopulmonary, renal, metabolic or orthopedic problems.

3. Use Of Surgical Specimens

All tissue specimens removed during surgery are to be examined or approved by a pathologist on the Hospital Staff before any part of the specimen may be sampled. Tissue may be removed for RAC-approved research only with the consent and supervision of the pathologist. Prosthetic devices and hardware removed during surgery are also to be examined by a pathologist.

4. Participation In Two Or More Research Projects Concurrently

Because of the potential for interaction between two or more therapeutic interventions, it is the policy of the RAC to very strongly discourage concurrent enrollment of subjects in more than one such research protocol. It is **the investigator's or authorized delegate's responsibility** to determine if a potential subject is enrolled in another research protocol. If at least one of the projects is not therapeutic (does not use drugs or devices and is non invasive) then the subject may be enrolled in more than one project providing that dual enrollment is with the knowledge and agreement of the Principal Investigators of both protocols. It is appreciated that there may be some circumstances in which enrollment in two therapeutic research protocols may be appropriate. If investigators wish to enroll patients in more than one treatment protocol at any one time, then the RAC should be informed and the RAC may approve such combined studies on a case by case basis.

5. Inclusion Of Women And Tribes As Research Participants

Gender and Tribes Inclusion

Research proposals that involve human subjects are required to include all tribes and both genders in study populations so that research findings can be of benefit to all persons at risk of the disease, disorder, or condition under study; special emphasis should be placed on the need for inclusion of some tribe and women in studies of disease, disorders, and conditions which disproportionately affect them. This policy applies to **all** research involving human subjects and human materials, and applies to males and females of all ages. If one gender and/or tribe are excluded or are inadequately represented in this research, particularly in proposed population-based studies, a clear compelling rationale for exclusion or inadequate representation should be provided. The composition of the proposed study population must be described in terms of gender and racial/ethnic issues should be addressed in developing a research design and sample size appropriate for the scientific objectives of the study.

Assess carefully the feasibility of including the broadest possible representation of minority groups. However, it is recognized that it may not be feasible or appropriate in all research projects to include representation of the full array of the Kingdom of Saudi Arabia racial/ethnic populations. Provide the rationale for studies on single tribe population.

Research Proposals involving human subjects must employ a study design with gender and/or tribe representation (by age distribution, risk factors, incidence/prevalence, etc.) appropriate to the scientific objectives of the research. It is not an automatic requirement for the study design to provide statistical power to answer the questions posed for men and women and racial/ethnic groups separately; however, whenever there are scientific reasons to anticipate differences between men and women, and racial/ethnic groups, with regard to the hypothesis under investigation, applicants should include an evaluation of these gender and tribe group differences in the proposed study. If adequate inclusion of one gender and/or tribe is impossible or inappropriate with respect to the purpose of the research because of the health of the subjects, or other reasons, or if in the only study population available there is a disproportionate representation of one gender or tribe/general population, the rationale for the study population must be well explained and justified.

6. Inclusion of Children as Research Participants

It is the RAC position that children (i.e., individuals under the age of 18) be included in all human subject research, unless there are clear and compelling reasons not to include them. If children will be excluded, the application or proposal must present an acceptable justification for the exclusion.

In the research plan, investigators should create a section titled "Participation of Children". This section should provide either a description of the plans to include children and a rationale for selecting or excluding a specific age range of child, or an explanation of the reason(s) for excluding children. When children are included, the plan must also include a description of the expertise of the investigative team for dealing with children at the ages included.

Justifications for Exclusion of Children

It is expected that children will be included in all research involving human subjects unless one or more of the following exclusionary circumstances can be fully justified:

1) The research topic to be studied is irrelevant to children.
2) There are laws or regulations barring the inclusion of children in the research.
3) The knowledge being sought in the research is already available for children or will be obtained from another ongoing study, and an additional study will be redundant
4) A separate, age-specific study in children is warranted and preferable. Examples include:
   a. The relative rarity of the condition in children, as compared to adults;
   b. The number of children is limited because the majority are already accessed by a nationwide pediatric disease research network;
   c. Issues of study design preclude direct applicability of hypotheses and/or interventions to both adults and children (including different cognitive, developmental, or disease stages or different age-related metabolic processes.
5) Insufficient data are available in adults to judge potential risk in children
6) Study designs aimed at collecting additional data on pre-enrolled adult study participants (e.g., longitudinal follow-up studies that did not include data on children)
7) Other special cases justified by the investigator.

7. Banking of Biologic Specimens

There are a number of issues that must be addressed if biologic samples are to be banked for future use.

1. Sample identification

The consent document must describe how the biological sample will be labeled and must indicate whether or not it will be possible to link the data obtained from the sample back to the subject. Retrospective (banked) or prospectively obtained biological samples may be categorized (labeled) in one of 4 ways:

(1) **Identified:** the sample is labeled with the subject's name or a code, which can be directly linked to the subject and the subject's records;
(2) **Identifiable:** the sample is labeled with a code number, which may be directly or indirectly linked back to the subject and the subject's records;
(3) **Anonymized:** a sample that was previously identified or identifiable, that has had all identifiers removed and can no longer be linked back to the subject or the subject's medical records by any means; or
(4) **Anonymous:** a sample that is coded at the time it is obtained, but that code is completely unrelated to any information through which the subject or the subject's medical records can ever be directly or indirectly linked back to the subject.

(If subjects are not told how the samples will be categorized, but rather they are to be given a choice of whether they are willing to have their samples identified/ identifiable (and possibly contacted again in the future for other research studies) or whether they want to have their samples anonymous/anonymized, then the options should be written as questions. The following are examples of such questions (which should be included in the body of the document that is requesting consent for the original biological sample). Subjects should be asked to initialize their answer, not just check off the choice they make. For example:

(1) Do you consent to have your sample labeled in a way that it will be possible to directly or indirectly link the sample back to you?

Yes _____ No _____

(2) If you consent to have your sample labeled in a way that it will be possible to directly or indirectly link the sample back to you, do you consent to be contacted again in the future for possible participation in another research project?

Yes _____ No _____

(3) Do you consent to have your sample labeled in a way that will make it impossible to directly or indirectly link the sample back to you?

Yes _____ No _____

2. Future use of samples

When the specimens are to be banked, investigators should indicate in the informed consent document that the specimens might be banked for an indefinite period of time.

Based on the goals of the study the investigator may want to:

(1) ask consent for the P.I. to use the sample in the current study only. If this is the case then it is appropriate to indicate what will be done with the sample at the end of the study (i.e. discarded).
(2) ask consent for the P.I. to store the sample and use it in future studies that are directly related to the current study;
(3) ask consent for the P.I. to store the sample and use it in future studies that are unrelated to the purpose(s) of the current study (this option may not be acceptable because the consent given will not be "informed"); or
(4) ask consent for the P.I. to distribute portions of the sample to other investigators, at KFSH&RC or other institutions, for use in related or unrelated research (this option may not be acceptable because the consent given will not be "informed").

If the P.I. wants to use the specimens obtained in the current study in future studies that are related or unrelated to the current study, and to distribute portions of the sample to other investigators at KFSH&RC or other institutions, then a blanket statement incorporating these points) must be included in the consent document.

If the investigator will allow the subject to choose between options 2, 3 or 4, then the P.I.should specifically request consent for each option (in the body of the document that is requesting consent for the original biological sample). The options may be written as questions. Examples of such questions follow. Subjects should be asked to initial their answer, not just check off the choice they make.

(1) Do you consent to have portions of the biological sample that will be obtained from you in the present study used by the P.I. in future research studies that are directly related to the current research

Yes _____ No _____

(2) Do you consent to have portions of the biological sample that will be obtained from you in the present study used by the P.I. in future research studies that are unrelated to the purpose(s) of the current research? (see 2 above)

Yes _____ No _____

(3) Do you consent to have portions of the biological sample that will be obtained from you in the present study distributed to other investigators at KFSH&RC or other institutions for use in research that is either related or unrelated to the purpose of this study?

Yes _____ No _____

3. Existing Specimens

Specimens that have been collected prior to the initiation of a research proposal, whether collected for clinical purposes or for the purposes of other research projects, may be used in subsequent research projects provided:

a) The new research proposal is approved by the RAC
b) The research subjects did not object to the use of their sample in future research proposals

The REC will decide on a case by case basis whether
a) the new research is covered by the previous consent, if any, or
b) a consent can be waived, or
c) subjects should be contacted to obtain a new consent.

4. Specimen Ownership

It is the policy of the RAC that all specimens collected for research are the property of the KFSH&RC.

8. Genetic Testing In Research Protocols

Genetic testing on biological samples is an exciting and important area that is expanding both as a clinical and research tool. Genetic testing using proven methods for clinical purposes does not represent research and will not be discussed further, except to point out that the availability of genetic counseling is intimately linked to and is an essential component of genetic testing. Genetic testing that is done for the acquisition of generalizable new knowledge, is research, and as such all studies that include genetic testing must conform to the RAC Bylaws, Policies & Guidelines. Please see Appendix 3 for an example of an informed consent document that may be used in genetic testing for research.

The examination of biological samples (tissue, blood and other body fluids) in general represents no direct physical harm to subjects (inflicts no physical pain or suffering). However, genetic testing carries with it the very real possibility of psychosocial risks to the subjects (the risk of harm from learning genetic information about oneself, social stigmatization, discrimination, labeling, and potential loss of, or difficulty in, obtaining employment or insurance). Consequently, these studies can not be categorized as presenting no risk or minimal risk. Thus, if a biological sample can be linked back to a subject, directly or indirectly, that research will require full REC review.

If recruitment of family members is planned, for confidentiality reasons, the index patient should not be asked to provide the name of the family member(s) directly to the investigator. Rather, the index patient should be asked to contact family members. If the family member is willing to speak with the investigator, then the family member should be asked to contact the investigator. Therefore, when research will include family members the protocol and consent form must indicate how family members will be contacted.

Disclosure of results of genetic tests

The REC requires that the consent form contain a statement that indicates whether or not the information that derives from genetic studies will be given to that subject. The REC recommends strongly, that this information be withheld until such time as the genetic test is validated as a reliable predictor of disease and appropriate counseling can be provided to the subjects.

9. Chart Review Protocols

Information contained in medical records (patient charts) is privileged and cannot be accessed for research purposes except with RAC approval. The following guidelines apply not only to review of hospital records, but to medical records kept in individual departments, divisions or physicians' offices.

NOTE: Access to medical records for research purposes requires RAC authorization.

While RAC allows access to medical records for approved research purposes, approval of such protocols does not convey permission to contact or recruit identified patients. Guidelines for recruiting subjects into research studies are detailed above in Section III, 2: (Recruitment of Subjects). Procedures that will be used to recruit subjects, who comply with these guidelines, must be specified in the submitted research protocol.

Research protocols, which include review of medical records, must also specify what procedures will be followed to ensure confidentiality of the information abstracted from the chart.

For studies involving prospective chart review, informed consent for such review should be obtained from the subjects. If this is not feasible, investigators must request a waiver of informed consent following the procedures detailed in this manual (section. IV).

Investigators should be aware that the Medical Records Department could perform searches of computerized records and provide reports of grouped or individual data. This form of chart review should be used whenever possible. If medical record numbers are retained in such reports, they should be linked to a code number and removed from the reports. The list linking the medical record number and code number should be secured separately and access to it limited to essential personnel. If physical review of the actual patient charts is required, the following procedures should be utilized to maximize maintenance of confidentiality:

1. Patient names should not be recorded as part of the research data unless needed to access other information required for the study that is not in the patient's chart. If patient names must be recorded, they should be linked to a code number and removed from the research record. The list linking the code number to the patient name should be secured separately and access limited to essential personnel (preferably, the P.I. only). The RAC must be informed if patient names are to be recorded.

2. Medical record numbers, which allow referral back to an individual patient, should be linked to a code number and removed from the research record. The list linking the

medical record number and code number should be secured separately and access to it limited to essential personnel.

3. In all studies, whether of computerized reports or physical chart reviews, all identifiers linking the data to individual patients (names or medical record numbers) should be destroyed, at the earliest time consistent with the needs of the research protocol.

10. Presentation/publication of individually identifying pictures and family pedigree

It is prohibited that individually identifying pictures, family pedigrees or individually identifying data of research subjects be presented or published without the subjects/family explicit written informed consent. Further, such presentation/publication is allowed only if necessary for the presentation/publication as determined by the RAC.

Section XII

MODEL CONSENTS

Please see Appendix I: Consent for Research Involving the Administration of Drug, Use of Devices or Performance Procedures, and Appendix 2: Consent for Research with NO Direct Benefits to the Subjects as template examples of comprehensive informed consent documents.

The following are model consents/statements that can be incorporated in (or added to or used instead of) the consent templates, as applicable.

1. HIV Testing in Research Protocols

The RAC has adopted a standard consent for HIV testing which is to be used in all instances in which HIV testing is performed as part of a research study. It is intended for use as a supplement to the primary consent. Additionally, the primary consent must contain the statement **"Part of your participation in this study involves being tested for the presence of antibodies to the Human Immunodeficiency Virus (HIV), the virus which causes AIDS. You will be asked to sign a separate consent for this procedur**e."

Model Consent For HIV Testing in Research Protocols

RAC Proposal #
KING FAISAL SPECIALIST HOSPITAL & RESEARCH CENTRE
Consent for HIV Antibody Test
Research Participant Information Sheet

You have been asked to participate in a research study, for which you have signed a separate consent. As indicated on that consent, part of your participation in that study will involve undergoing an HIV antibody test. This consent is specifically for the HIV antibody test. The HIV antibody test is a blood test used to ascertain whether you have antibodies to the Human Immunodeficiency Virus (HIV), the virus that causes Acquired Immunodeficiency Syndrome (AIDS). Less than one teaspoon of blood will be drawn from a vein in your arm using a needle. This may cause some discomfort and you may develop a black and blue mark. It takes approximately one to two weeks between the time your blood is drawn and the time you are notified of the results.

Both before and after your blood is tested, you will receive counseling from trained HIV counselors involved in this research project about the implications of negative and positive results, how to prevent future transmission, and the options available to you. Your wife/husband may be notified of the results of this test and urged to undergo testing as well. You will not incur any costs nor receive any payment for participating in this part of the study.

A positive HIV antibody test means that your body is making antibodies to HIV but it does not mean that you will necessarily develop AIDS in the future. A negative test means that you are probably not infected; however, it is possible that you may be infected but that your body has not

produced antibodies to HIV. If your results are negative and you have been exposed to HIV recently, you should be retested in a few months to make sure you are not infected.

There are several possible benefits to taking the HIV antibody test. If your test results are negative, you can learn how to avoid becoming infected in the future. If your results are positive, you can learn how to avoid infecting other individuals, and if you are pregnant, or are thinking about having children, you can learn how being HIV positive will affect your decision to have children. Additionally, we can offer you enrollment in a wide variety of research projects for the treatment of AIDS or refer you to a doctor for non-experimental treatment.

This is a voluntary procedure, and all results, either positive or negative, are confidential. Information about your HIV antibody test can only be released to people who you designate by signing a release form, or to those people listed below:

a) You (or a person authorized by law who consented to the test for you);
b) To a health care facility (such as a hospital, blood bank, or clinical laboratory) or a health care provider (such as a physician, nurse, or mental health counselor) providing care to you or your child, and anyone working for such a facility or provider who reasonably needs the information to supervise, monitor or administer health care;
c) To a person whom your doctor believes is at significant risk for HIV infection, if you do not notify that person after being counseled to do so;
d) To a committee or organization responsible for reviewing or monitoring a health facility;
e) To a government agency, when the agency needs the information to supervise, monitor, or administer a health or social service;
f) By a physician to someone who may consent to health care for you if you have been counseled and won't inform such person and disclosure is medically necessary to provide timely care and treatment. Disclosure must not be against your best interest.

If you do not want anybody to know your tests results or that you have been tested, you can go to an anonymous test site. This is a place where you can have your blood tested and receive counseling without having to tell anybody your name or address.

Authorization for HIV testing

Patient Name and Medical Record #

_____

1. As part of my participation in a research project I authorize Dr. _____ and his/her associates at King Faisal Specialist Hospital & Research Centre to perform **HIV Antibody Testing, provide Pre-Test Counseling and Post-Test Counseling and draw less than one teaspoon of blood, one time from me.**
2. I acknowledge that I have read, or had explained to me in a language I understand, the attached consent document and that Dr. _____ has explained to me the nature and purposes of the described procedures, as well as any benefits, associated discomforts

and risks reasonably to be expected. I have had the opportunity to ask questions with respect to such procedures and all questions I asked were answered to my satisfaction.

3. I voluntarily accept the risks associated with the performance of the above-mentioned procedures.
4. I understand that I am free to withdraw this consent and to discontinue the above-mentioned procedures at any time. The consequences and risks, if any, which might be involved have been explained to me.
5. I confirm that I have read the foregoing authorization and that all blanks or statements requiring completion were properly completed before I signed.

Research Subject/Surrogate: _____ Date**:** _____
(Signature)

Name**:** _____ Time**:** _____
(Print)

Relationship: _____
(If signed by surrogate)

For subjects who are not able to read this consent document themselves, the following must be completed:

I confirm that I have accurately translated and/or read the information to the subject:

Witness:

_____
(Signature)

Name:

_____
(Print)

Address:

_____
(Number & Street) (City) (Postal code)

ATTESTATION OF PRINCIPAL INVESTIGATOR/DELEGATE

I have fully explained to the above volunteer/relative/surrogate the nature and purposes of the foregoing procedures, the benefits reasonably to be expected, the associated discomforts and risks involved. I believe that the above volunteer/relative/surrogate understands the nature, purposes, benefits, and risks of participation in this research. I have also offered to answer any questions the above volunteer/relative/surrogate might have with respect to such or procedures and have fully and completely answered all such questions.

_____ _____
Signature of Principal/Delegate Date

_____
Name (Please print)

2. Studies Involving Blood Drawing Only

There are a number of research projects in which the drawing of blood is the only research activity, which involves human subjects. In these projects, one of two situations may exist. In the first, an additional sample may be obtained at the time of venipuncture for clinically indicated reasons. Signed consent for the drawing of additional blood may be waived and investigators proposing such protocols should refer to the guidelines for waiver of signed consent prior to submitting their proposal to the ORA.

Venipuncture may also be performed independent of any clinical procedure, such as occurs when obtaining samples from normal controls. A sample consent, intended to be used as a model for all studies involving independent venipuncture, except those studies in which blood is drawn for HIV-antibody testing, is detailed below. Investigators are strongly urged to make use of this model, as it will hopefully prevent the need for revisions.

NOTE: If banking or genetic testing is involved, see Sections XI. 7 & 8 above.

Model Consent For Blood Drawing

RAC Proposal #

KING FAISAL SPECIALIST HOSPITAL & RESEARCH CENTRE
Consent For Blood Drawing
Research Participant Information Sheet

You are being asked to participate in a research study. The purpose of this study i**s** _____**.** You qualify for participation in this study because you have _____/ you are a normal, healthy individual. There will be _____ subjects enrolled in this study in the upcoming year.

Your participation in this study will involving drawing a blood sample from a vein in your arm. The total amount drawn will not exceed _____teaspoons/tablespoons/ounces each time. We will draw blood _____ times, approximately once every____days/weeks/months.

The blood will be used for determining/measuring . _____. You will/will not be informed of the results of these tests. You may experience some minor pain and may develop a black and blue mark as a result of the blood drawing. You will not incur any costs/will be charged SR_____ for your participation. You will receive SR_____ for your time and expenses incurred as a result of participating/ will not receive any financial compensation for participating.

While there is no direct benefit to you, it is hoped this study will yield more information about _____. You may withdraw from this study at any time by informing the individual drawing your blood or by contacting the investigator.

3. Donation Of Fetal Tissue For Use In Therapeutic Transplantation Research

Several attestations are required; one from the woman who will donate the tissue, one from the attending physician who will obtain the tissue, and one from the investigator who will carry out the research with the fetal tissue. Three model attestations are provided. A separate consent form that explains all aspects of the research (the transplantation) will have to be written by the investigators for subjects who are asked to participate as recipient of the fetal tissue. Model consents and attestations follow.

A. Model Attestation For Women Who Will Donate Fetal Tissue To Be Obtained By The Attending Gynecologist For Therapeutic Transplantation Research

1) You have decided to have an abortion and have given your informed consent to the abortion. Your decision to have the abortion was made independent of and prior to reading this statement. Your decision to have the abortion is not related to your decision to donate the fetal tissue obtained during the abortion for medical research. This research involves transplantation of some of the tissue that will be obtained during the abortion into another human being for therapeutic purposes.

2) A blood sample drawn from you at the time of the abortion and the tissue obtained may be tested for infections such as human immunodeficiency virus (HIV), the virus that carries AIDS. Such tests are important for transplant purposes. You will be asked to sign a separate consent for HIV testing of your blood.

3) You have not been informed of the identity of any potential tissue recipient. Your agreement and consent to donate the fetal tissue are made without any restrictions regarding the identity of any potential recipient of the tissue.

4) You have been informed that the physician performing the abortion procedure has no financial interest in the tissue that will be obtained from the abortion procedure. Your physician may be included as an author in any published scientific studies that arise out of discoveries made in connection with the fetal tissue research.

5) We are required to disclose any known medical risks to you or risks to your privacy that might be associated with your donation of the tissue. At this time, no such medical risks or risks to your privacy are known. Your identity and any information relating to your donation of this tissue will remain completely confidential.

6) You have read this document and have been given the opportunity to ask questions. By signing this document you agree to the donation of the fetal tissue that was obtained at the abortion for therapeutic transplantation research. You have been informed that you may refuse to sign this form without penalty.

_____ _____

Patient Signature Date

_____

Name (Please Print)

B. Model Attestation Of Attending Gynecologist Who Has Obtained Fetal Tissue For Therapeutic Transplantation Research

I affirm that the human fetal tissue obtained from my patient ( ) has been obtained in accord with her signed statement consenting to its use for therapeutic transplantation research. I have disclosed to her any interest I may have in the research to be conducted with the human fetal tissue that I obtained from her. I have advised her of any medical risks associated with this procedure including (insert risks of procedure), which are in addition to her clinical care. Additionally, I have advised her of any possible risks to her privacy which are associated with the donation of the tissue.

I further affirm that in cases of induced abortion, the donor's consent for the abortion was obtained prior to requesting or obtaining consent for the donation of fetal tissue. The abortion was also conducted in accord with Kingdom Islamic Law, and no alteration of the timing, method, or procedures used to terminate the pregnancy was made solely for the purposes of obtaining the tissue.

_____ _____

Signature Date

_____

Name (please print)

C. Model Attestation Of The Principal Investigator Who Will Receive Fetal Tissue For Use In Therapeutic Transplantation Research

As the Principal Investigator of the above referenced study, for which study I have received human fetal tissue, I am aware that the tissue was donated for research purposes and was obtained pursuant to a spontaneous abortion, an induced abortion, or a still birth. I have provided this information to other individuals with responsibilities regarding this research. I have had no part in any decisions as to the timing, method, or procedures used to terminate the pregnancy.

I will obtain from any recipient of this tissue written acknowledgment that the above information regarding the tissue was given to her/him, prior to obtaining his/her consent to be a recipient of the tissue.

_____ _____

Signature Date

_____

Name (please print)

4. Donation Of Fetal Tissue and/or Placenta For Use In In-Vitro Studies

Consent for use of fetal tissue and/or placenta in research must be obtained after the patient has consented to an abortion or has undergone a spontaneous abortion. The individual who requests and obtains consent for fetal tissue or placenta (The P.I., Co-P.I. or delegate) must be different from the individual who obtained consent and/or performed the abortion. See model consent below.

Model Consent For Donation Of Fetal Tissue and/or Placenta For Use In In-Vitro Studies

You are being asked to participate in a research study. You qualify for participation in this study because....., and you are now pregnant, and have, (e.g. elected to undergo an interruption of pregnancy; had a spontaneous abortion; had a still birth). You are asked to donate the fetus and placenta after interruption of your pregnancy. The purpose of this study is _____
_____

Performance of this research requires the use of products of conception, (e.g. specifically fetal tissues, blood and/or placenta). These tissues/blood/or placenta will be obtained at the time of your interruption of pregnancy. There are no risks to you, since the studies will be carried out on the fetal tissue/ blood/or placenta following the interruption of pregnancy.

The studies on the fetal tissues/blood/or products of conception will be performed at no cost to you. You will not receive any compensation for your participation.

There is no direct benefit of these studies to you; however, we hope that the information gained may expand our knowledge of. _____.

5. Model Statement for Risks of Lumbar Puncture

All studies that involve lumbar puncture must incorporate the following statement in the consent form under Potential Risks and Discomforts:

> "There is a remote possibility of an infection at the puncture site. You might develop a headache after the procedure. This is usually mild, but rarely might be severe and prolonged for several days, or very rarely, longer. These risks will be minimized by use of experienced personnel. More serious adverse effects such as infection or damage to the nervous system have been reported, but usually when there is a pre-existing neurologic illness in symptomatic neurologic patients, which we attempt to rule out prior to this study. This will be accomplished by a neurologic physical examination before the procedure."

6. Model Statement for Risks of Administration of Radioactive Substances

The risks of administration of radioactive substances have often been compared to "x" number of x-rays. According to experts, this is not an appropriate comparison. The following description of

potential risks and discomforts of administering radioactive substances has been approved by the REC and should be incorporated under the Potential Risks and Discomforts section when radioactive compounds are used in research protocols:

> "The possible discomforts associated with this study include local pain during the needle insertion. The likelihood of an allergic reaction to the injected radioactive compound is extremely low. The risks associated with the administration of _____mCi of radioactivity into the body cannot be absolutely determined. However, the amount of radiation subjects will be exposed to will be _____ (high, modest, low). The amount of radioactivity injected is comparable to the amount generally used for routine diagnostic nuclear medicine studies."
>
> "The dose of radioactivity injected into your body is _____mCi of _____ (name of isotope). Various organs in the body such as the liver, kidney, bones retain different amounts of radioactivity while some of the radioactivity is excreted from the body. Therefore, the dose to your body is expressed as "total effective dose equivalent (TEDE)". This value was estimated to be ( ) mrem for this protocol. The critical organ (the organ receiving the highest dose) is , and will receive ( )mrem. Both of these doses are (well below, equal to, or greater than) the safe limits established by the Nuclear Regulatory Commission (NRC), an organization which determines the safety of radiation exposure. (If dose is greater than the established safe limits indicate how much greater)

7. Model Statement for Risks of Sedation/Anesthesia

Incorporate the applicable section of the following for any procedures that involve sedation/anesthesia:

You/your child's participation in this research project involves the performance of a test(s) or procedure(s) called ( ). This test (procedure) may require the use of drugs that produce sedation or in some cases general anesthesia. This may be necessary to minimize any discomfort to you/your child. In some cases, especially young children, general anesthesia may be necessary if it is important that you/your child must remain very still for some period of time while the test or procedure is being done.

Sedative drugs and tranquilizers like Valium are used to help you/your child remain calm and to lessen any anxiety you/your child may experience. These drugs cause drowsiness and sometimes sleep. They often also produce short periods of amnesia so that you/your child may not remember some of the events that occur after you/your child are given the medication. If the test or procedure is expected to cause any pain, pain relieving medication or narcotics like morphine, may be given. The narcotics help to relieve pain but may also cause drowsiness and can sometimes have an effect on you/your child's breathing. The most common side effect of sedatives and narcotics are drowsiness, which lasts for some time after the test or procedure,

slow heart rates or allergic reactions. It is also possible that these drugs can depress your/your child's breathing. All of these side effects can be treated and in most instances will not cause any permanent injury. However, although it is very rare, the possibility of severe injury including death or permanent brain damage cannot be excluded. You/your child will be closely watched for any side effects when given these medications, and any problems will be rapidly treated.

General anesthesia requires the use of powerful drugs that affect many of the functions of the body. These drugs are used to produce unconsciousness and prevent pain and movement. They are administered by highly trained physicians who are experts in their use and the treatment of any complications that may occur. You/your child will be closely watched throughout the procedure and any problems that may occur will be rapidly treated. The most common side effects of general anesthesia include nausea, vomiting, sore throat, damage to teeth or dental appliances (caps, bonding, and bridges) , and drowsiness which may last for some time after the procedure. These side effects can either be treated or will go away on their own and usually do not cause any serious problems. Low blood pressure, high blood pressure, fast or slow heart rates or irregular heart rates can also occur, but are usually quickly and easily treated with other medications. The modern practice of anesthesia is generally considered to be very safe. However, on rare occasions, unforeseen problems can occur even when all the proper precautions have been taken to protect you/your child. Serious possible complications associated with anesthesia include irritation of the lungs which may cause difficulty with breathing, or aspiration (stomach contents entering you/your child's lungs) which may require that a breathing tube be placed in you/your child's trachea (windpipe) and a machine (ventilator) used to help you/your child to breath for some time. Rarely these problems can result in permanent brain damage or death. On very rare occasions, unpredictable allergic type reactions can occur which may result in liver damage, liver failure or death.

The risks of anesthesia are increased by the presence of any diseases or medical conditions that may be present in any individual. If any additional risks or considerations exist, these will be discussed with you/your child by an anesthesiologist before the test or procedure.

APPENDICES

APPENDIX 1: Informed Consent for Research Involving the Administration of Drugs, Use of Devices, or Performance of Procedures

Title of Proposal

Part I – Research Participant Information Sheet: **الجزء الأول – معلومات للمشارك في البحث:**

A. Purpose of the Research: **أ. الغرض من البحث:**

B. Description of the Research: **ب. وصف البحث:**

C. Potential Risks and Discomforts: **جـ. المخاطر والانزعاجات المحتملة:**

D. Potential Benefits: **د. الفوائد المحتملة:**

E. Alternative to Participation (where applicable): **هـ. البدائل عن المشاركة (إن وجدت):**

F. Cost/s Reimbursements: **و. التكاليف / التعويضات المالية:**

G. Termination of Participation (where applicable): **ز. إنهاء المشاركة (إذا أمكن):**

H. Compensation / Treatment: **ح. التعويضات / العلاج:**

In the event of injury resulting from participation in the research study, KFSH&RC will make available to you, including admission, if required, its hospital facilities and professional attention. Financial compensation from KFSH&RC is not available.

في حالة حدوث أي ضرر لا قدر الله من جراء مشاركتك بهذه الدراسة سيتكفل مستشفي الملك فيصل التخصصي ومركز الأبحاث بتقديم العناية الطبية اللازمة أو التنويم في المستشفي إذا لزم الأمر ولكنه لا يلتزم بمنح أي تعويضات مالية.

I. Voluntary Participation:

Participation in this study is voluntary. You will suffer no penalty nor loss of any benefits to which you are otherwise entitled should you decide not to participate. Withdrawal from this research study will not affect your ability to receive alternative methods of medical care available at KFSH&RC.

Significant new findings developed during the course of the research study which might be reasonably expected to affect your willingness to continue to participate in the research study will be provided to you.

J. Confidentiality:

Your identity and medical record, as a participant in this research study, will remain confidential with respect to any publications of the results of this study. Furthermore, your medical record may be reviewed by the Research Advisory Council or the agency sponsoring this research in accordance with applicable laws and regulations.

K. Contact Person(s):

For any specific questions with regard to this study, or in the event of a research-related injury, please contact Dr. _____
Telephone # _____ Ext. _____
Pager # _____.

A signed copy of the consent form will be given to you.

ط. المشاركة التطوعية:

المشاركة في هذه الدراسة طوعيه وإذا قررت عدم المشاركة فانك لن تتعرض لأي مضايقات أو لفقدان حقك المشروع في المعالجة ، كما أن قرارك بالانسحاب من الدراسة لن يؤثر علي تلقيك لخدمة علاجية بديلة متوفرة في مستشفي الملك فيصل التخصصي ومركز الأبحاث.

سيتم إبلاغك بأي نتائج جديدة هامة تظهر خلال تطوّرات البحث مما قد يؤثر بطريقة معقولة على رغبتك في الاستمرار بالمشاركة في هذه الدراسة0

ي. السرية:

كمشارك في هذه الدراسة ستكون هويتك ومحتويات ملفك الطبّي سرية في جميع المنشورات المتعلقة بنتائج الدراسة، ويمكن الاطلاع عليه من قبل المجلس الاستشاري للأبحاث أو الجهة الداعمة للدراسة في حدود النظم والقوانين المطبقة بهذا الخصوص0

ك. الأشخاص الذين يمكن الاتصال بهم:

حالة وجود أسئلة محدّدة تتعلّق بهذا البحث أو في حالة حدوث أي إصابات تتصل بالدراسة، نرجو الاتصال على الدكتور _____ على هاتف رقم _____ تحويلة رقم _____ أو جهاز نداء رقم _____.

سيتم تزويدك بنسخة موقعة من هذا الإقرار.

PART II - Authorization for Administration of Certain Drugs, Use of Devices or Performance of Certain Procedures

الجزء الثاني: تفويض باستعمال علاج أو جهاز أو إجراء طبي:

PatientName: _____

اسم المريض: _____

MRN #:_____

رقم الملف الطبي : _____

1.a I authorize Dr. _____ and his/her associates at KFSH&RC to administer the following drugs, use the following devices or perform the following procedures during my treatment (or the treatment of the person named above for whom I am responsible):

1-أ بهذا أفوض الدكتور:_____
أو أحد المشاركين معه في مستشفي الملك فيصل التخصصي ومركز الأبحاث باستعمال الدواء أو الجهاز أو الإجراء الطبي التالي - خلال معالجتي الطبية (أو معالجة الشخص المذكور أعلاه والذي أنا ولي أمره):

_____ _____
_____ _____
_____ _____
_____ _____

1.b I also agree that the following body fluids and tissues may be sampled for research analyses and related purposes (include volume and frequency of each):

1-ب كما أوافق على أخذ عينات من سوائل أو أنسجة الجسم وذلك لأغراض تحليله متعلقة بالبحث (أذكر الكمية وعدد المرات لكل نوع):

_____ _____
_____ _____
_____ _____
_____ _____

2. I understand that the above-mentioned drugs, devices or procedures are being studied to determine the extent to which they may be of value in treating my illness or condition (or the illness or condition of such patient named above, as the case may be).

2. أفهم بأن الدواء ، أو الجهاز ، أو الإجراء المذكور أعلاه سيتم دراسته لمعرفة إلى أي حد قد يكون مفيداً لمعالجة مرضي أو الحالة التي أعاني منها (أو المرض والحالة التي يعاني منها المريض والذي أنا ولي أمره).

3. I acknowledge that I have read, or had explained to me in a language I understand, the attached Research Participant Information sheet and that Dr. _____ has explained to me the nature and purposed of the drugs, devices or procedures described in the Research Participant Information Sheet as well as any benefits reasonably to be expected, possible alternative methods of treatment, the attendant discomforts and risks reasonably to be expected and the possibility that complications from both known and unknown causes may arise as a result thereof. I have had the opportunity to ask any questions I had with respect to such drugs, devices or procedures and all questions I asked were answered to my satisfaction.

3. أقر بأنني قد قرأت - أو قد شرحت لي بلغة أفهمها - جميع المعلومات المتعلّقة بالمشاركة بالبحث والمرفقة، وأن الدكتور/ _____ قد أوضح لي ماهية وطبيعة الدواء أو الجهاز أو الإجراءات المذكورة في نموذج المعلومات للمشارك والغرض منها والفوائد المرجوة منها والطرق العلاجية البديلة لها والمخاطر والانزعاجات المتوقع حدوثها وكذلك احتمال حدوث مضاعفات لأسباب معروفة أو غير معروفة نتيجة لذلك.
كما أنه قد أتيحت لي الفرصة الكافية لعرض الأسئلة فيما يتعلّق باستخدام الدواء أو الجهاز أو الإجراء الطبي وتلقيت الإجابات الكافية عنها.

4. I understand that I am entitled for reimbursement for expenses incurred as a result of my participation in this study

4. من المفهوم لديّ بأنني استحق استرداد المصروفات التي نتجت عن مشاركتي في هذه الدراسة.

5. I voluntarily accept the risks associated with the use of the above-mentioned drugs, devices or the performance of the above-mentioned procedures with the knowledge and understanding that the extent to which they may be effective in my treatment (or the treatment of the patient named above, as the case may be) has not been established, that there may be side effects and complications from both known and unknown causes and that these drugs, devices, or procedures may not result in cure or improvement.

5. إنني وبمحض إرادتي أقبل المخاطر المتعلقة باستخدام الدواء أو الجهاز أو الإجراءات المذكورة في هذا الإقرار مع علمي وفهمي التام بأن مدى فائدتها في علاجي (أو للشخص الذي أتولى أمره) لم يتم إثباته بعد. وأن هناك مضاعفات وآثار جانبية متوقعة ولأسباب معروفة أو غير معروفة. وإن هذه الأدوية أو الأجهزة أو الإجراءات الخاصة قد لا تؤدّي إلى تحسّن حالتي أو الشفاء التام منها.

6. I understand that I am free to withdraw this consent and discontinue treatment with the above-mentioned drugs, devices or procedures at any time. The consequences and risks, if any, which might be involved in the event I later decide to discontinue such treatment have been explained to me. I understand that such withdrawal will not affect my ability to receive any medical care made necessary by the performance of such studies or to which I might be otherwise entitled.

6. وأفهم أن لي مطلق الحرية بسحب موافقتي وقطع المعالجة بهذا الدواء/الجهاز/أو الإجراء في أي وقت. وقد شرحت لي جميع العواقب والمخاطر المترتبة (إن وجدت) على انسحابي من الدراسة.

كما أفهم بأن انسحابي من هذه الدراسة لن يؤثر على حقي في تلقي العناية الطبية اللازمة (كنتيجة للمشاركة في هذه الدراسة). أو التي تمنح للمشاركين بالدراسة أو التي أستحقها في الأحوال العادية.

7. I confirm that I have read, or had read to me, the foregoing authorization and that all blanks or statements requiring completion were properly completed before I signed.

7. بهذا أؤكد بأنني قد قرأت (أو قرأ لي) هذا التفويض وأن جميع المعلومات اللازمة قد تمت تعبئتها بدقة قبل توقيعي عليه.

Patient/Surrogate: _____ التاريخ: _____
Print Name: _____

التوقيع: _____
الاسم: _____

Relationship: _____
(If signed by Surrogate)

صلة القرابة: _____

8. I confirm that I have accurately translated and/or read the information to the subject or his/her surrogate.

8. أؤكد بأنني قد قرأت/ ترجمت جميع المعلومات المذكورة بدقة للمريض أو لولي أمره.

Witness: _____
Signature

توقيع الشاهد: _____

Print Name: _____

الاسم _____

KFSH&RC ID #: _____

رقم البطاقة: _____

Date: _____

التاريخ : _____

9- أقر بأنني قد شرحت بصورة كاملة للمريض / أو قريبه (ولي أمره) طبيعة والغرض من هذا العلاج/ الجهاز / الإجراء. والطرق العلاجية البديلة والتي من المحتمل أن يكون لها الأفضلية والفوائد المحتملة والمخاطر والانزعاجات المتوقع حدوثها والتي قد يترتّب عليها حدوث مضاعفات.

كما أنني قد أوضحت النتائج أو المخاطر المختلفة في حالة قرار المريض (أو قريبه أو ولي أمره) قطع المعالجة بالدواء / الجهاز / الإجراء قد الدراسة.

من المفهوم لديّ بأن المريض المذكور أعلاه (أو قريبه أو ولي أمره) قد فهم طبيعة الدراسة والهدف منها والفوائد والمخاطر المترتبة على المشاركة فيها قبل توقيعه على الموافقة بالمشاركة.

وقد قمت بتوضيح استعدادي للإجابة على جميع أسئلة المريض/ قريبه/ ولي أمره بالإجابة على تلك المتعلقة بالدواء/ الجهاز/ الإجراء موضوع الدراسة وقمت فعلاً بالإجابة كاملةً على جميع الأسئلة بطريقة واضحة ومرضية.

9. I have fully explained to the above patient/ relative/ guardian the nature and purpose of the foregoing drugs, devices or procedures, possible alternative methods of treatment which might be advantageous, the benefits reasonably to be expected, the attendant discomforts and risks involved, the possibility that complications may arise as a result thereof and the consequences and risks, if any, which might be involved in the event the patient/ relative/ guardian hereafter decides to discontinue such treatment.

It is my understanding that the above patient/ relative/ guardian understands the nature, purposes, benefits, and risks of participation in this research before signing of this informed consent. I have also offered to answer any questions the above patient/ relative/ guardian might have with respect to such drugs, devices or procedures and have fully and completely answered all such questions.

توقيع الباحث الرئيسي: (Signature of Principal Investigator/ Delegate):

_____ _____

الاسم: _____ Print Name: _____

الوظيفة: _____ Title: _____

التاريخ: _____ Date: _____

APPENDIX 2: Informed Consent for Research with No Direct Benefits to the Participant

Title of Proposal: عنوان البحث :

Part I – Research Participant Information Sheet: **الجزء الأول – معلومات للمشارك في البحث:**

A. Purpose of the Research: **أ. الغرض من البحث:**

B. Description of the Research: **ب. وصف البحث:**

C. Potential Risks and Discomforts: **جـ. المخاطر والانزعاجات المحتملة:**

D. Potential Benefits: **د. الفوائد المحتملة:**

E. Alternative to Participation (where applicable): **هـ. البدائل عن المشاركة (إن وجدت):**

F. Cost/s Reimbursements: **و. التكاليف / التعويضات المالية:**

G. Termination of Participation (where applicable): **ز. إنهاء المشاركة (إذا أمكن):**

H. Compensation / Treatment:

In the event of injury resulting from participation in the research study, hospitalization and professional attention, if these are required, will be provided at KFSH at no cost to you. Financial compensation from KFSH&RC is not available.

ح. التعويضات / المعالجات:

في حالة حدوث أي ضرر – لا قدر الله – من جراء المشاركة في هذه الدراسة سيتكفل مستشفي الملك فيصل التخصصي ومركز الأبحاث بتقديم الرعاية الطبية اللازمة أو التنويم بالمستشفي إذا لزم الأمر ولكنه لا يلتزم بمنح أي تعويضات مالية بديلة.

I. Voluntary Participation:

Participation in this study is voluntary. You will suffer no penalty nor loss of any benefits to which you are otherwise entitled should you decide not to participate. Withdrawal from this research study will not affect your ability to receive alternative methods of medical care available at KFSH&RC.Significant new findings developed during the course of the research study which might be reasonably expected to affect your willingness to continue to participate in the research study will be provided to you.

ط. المشاركة التطوعية:

المشاركة في هذه الدراسة طوعيه وإذا قررت عدم المشاركة فانك لن تتعرض لأي مضايقات أو لفقدان حقك المشروع في المعالجة ، كما أن قرارك بالانسحاب من الدراسة لن يؤثر علي تلقيك لخدمة علاجية بديلة متوفرة في مستشفي الملك فيصل التخصصي ومركز الأبحاث

سيتم إبلاغك بأي نتائج هامة جديدة تظهر خلال تطورات البحث مما قد يؤثر بطريقة معقولة على رغبتك في الاستمرار بالمشاركة في هذه الدراسة.

J. Confidentiality:

Your identity and medical record, as a participant in this research study, will remain confidential with respect to any publications of the results of this study. Your medical record in connection with this study will be kept confidential to the extent permitted by the law. Furthermore, your medical record may be reviewed by the Research Advisory Council or the agency sponsoring this research in accordance with applicable laws and regulations.

ي. السرية:

كمشارك في هذه الدراسة ستكون هويتك ومحتويات ملفك الطبّي سرية في جميع المنشورات المتعلقة بنتائج الدراسة كما سيبقي رقم سجلك الطبي سري في الحدود التي يسمح بها القانون ويمكن الاطلاع عليه من قبل المجلس الاستشاري للأبحاث أو الوكيل الداعم للدراسة في حدود النظم والقوانين المطبقة بهذا الخصوص

A signed copy of the consent form will be given to you.

سيتم تزويدك بنسخة موقعة من هذا الإقرار

PART II: Authorization of Voluntary Participant Who is not Expected to Obtain Any Direct Benefit:

الجزء الثاني: تفويض من المشارك بالدراسة التي لا يتوقع أن يكون لها فائدة مباشرة للمشارك

Participant Name _____

اسم المشارك :_____

MRN # (or address):_____

رقم السجل الطبي أو العنوان :_____

1.a I hereby volunteer to participate in a research program under the supervision of Dr ._____ and his/her associates at KFSH&RC which will include the following conditions , drugs of procedure:

1-أ بهذا أتطوع للمشاركة في هذا البرنامج البحثي تحت إشراف الدكتور :_____
أو أحد المشاركين معه بمستشفي الملك فيصل التخصصي ومركز الأبحاث والمتضمن هذه الحالات ، الأدوية ، أو الإجراءات الطبية

_____ _____
_____ _____
_____ _____

1.b I also agree that the following body fluids and tissues may be sampled for research analyses and related purposes (include volume and frequency of each):

1-ب كما أوافق على أخذ عينات من سوائل أو أنسجة الجسم لأغراض البحث (أذكر الكمية وعدد المرات)

_____ _____
_____ _____
_____ _____
_____ _____
_____ _____

2. I acknowledge that I have read, or had explained to me in a language I understand, the attached Research Participant Information sheet and that Dr/_____ has explained to me the nature and purpose of these studies, including the extent, if any, to which they are experimental, the possible attendant discomforts, symptoms, side effects and risks reasonably to be expected, and the possible complications, if any, which may arise from both known and unknown causes as a result of these studies. I have had the opportunity to ask any questions I had with respect to this study and all questions I asked were answered to my satisfaction.

2. أقر بأنني قد قرأت – أو شرح لي بلغة مفهومة لدي – هذه المعلومات المتعلقة بمشاركتي في هذا البحث وأن الدكتور / _____ قد أوضح لي طبيعة وأهداف هذه الدراسة ومدي كونها تجريبية (إن كانت كذلك) والآثار الجانبية أو الانزعاجات أو الأعراض أو المخاطر المتوقع حدوثها وجميع المضاعفات الممكنة إن وجدت والناتجة عن أسباب معروفة أو غير معروفة مرتبطة بالدراسة كما أقر بأنه قد أتيحت لي الفرصة لتوجيه جميع الأسئلة المتعلقة بموضوع الدراسة وتلقيت الإجابات الشافية

3. I understand that these studies are not intended to be of any direct therapeutic benefit to me and I voluntarily accept the risks and discomforts associated with these studies.

3. أفهم بأن هذه الدراسات ليست لها أي فائدة علاجية مباشرة لي ومع ذلك أتطوع بالمشاركة فيها مع علمي بالمخاطر والانزعاجات الناتجة عنها

4. I understand that I am entitled for reimbursement for expenses incurred as a result of my participation in this study

4. من المفهوم لديّ بأنني استحق استرداد المصروفات التي نتجت عن مشاركتي في هذه الدراسة

5. I understand that, in order to provide the data by which to measure the effectiveness of these studies, Dr._____ and his/her associates may carry out certain routine preliminary diagnostic procedures which have been fully described and explained to me. Should these indicate any abnormality, my participation in the aforementioned studies may be terminated. I am unaware of any preexisting medical or emotional problem that would make it unwise for me to participate in these studies.

5. كما أفهم بأنه ومن أجل الحصول على المعلومات التي يمكن من خلالها تقييم كفاءة وفعالية هذه الدراسات فان الدكتور:_____ أو أحد المشاركين معه قد يجرون لي بعض الفحوصات التشخيصية الأولية بعد أن يتم شرحها لي تفصيلا.
وأنه إذا وجد بها أي نتائج غير طبيعية فمن الممكن إنهاء مشاركتي بهذه الدراسةكما أقر بأنني لا أعاني من أي مشاكل طبية أو نفسية معروفة لدي بحيث يكون من غير الحكمة قبول مشاركتي بهذه الدراسة

6. I understand that I am free to withdraw this authorization and discontinue participation in these studies at any time. The consequences and risks, if any, of such withdrawal during the course of the studies have been explained to me. I understand that such withdrawal will not affect my ability to receive any medical care made necessary by the performance of such studies or to which I might be otherwise entitled.

6. وأفهم بأن لي مطلق الحرية بسحب هذا التفويض وإنهاء مشاركتي بهذه الدراسة في أي وقت أشاء مع علمي بجميع العواقب والمخاطر المترتبة على انسحابي من الدراسة (إن وجدت). كما أفهم بأن انسحابي من هذه الدراسة لن يؤثر على حقي في تلقي العناية الطبية اللازمة والتي تمنح للمشاركين بالدراسة أو استحقها في الأحوال العادية

7. I grant this consent as a voluntary contribution in the interest of medical research.

7. أوافق على أن يكون هذا الإقرار كمشاركة طوعيه في هذا البحث الطبي

8. I confirm that I have read, or had read to me, the foregoing authorization and that all blanks or statements requiring completion were properly completed before I signed.

8. كما أؤكد بأنني قد قرأت – أو قرأ لي هذا التفويض وأن كل المعلومات اللازمة قد تمت تعبئتها بدقة قبل توقيعي عليه

Patient/Surrogate Signature: _____

توقيع المريض أو ولي الأمر: _____

Date: _____

التاريخ : _____

Print name: _____

الاسم : _____

Relationship: _____
(If signed by Surrogate)

صلة القرابة : _____

9. I confirm that I have accurately translated and/ or read the information to the subject:

9- أقر بأنني قد قرأت / أو ترجمت للمشارك بدقة هذه المعلومات

Witness: _____
Signature

شاهد: _____
التوقيع

Print name: _____

الاسم (طباعة): _____

KFSH&RC ID#: _____

رقم البطاقة : _____

10. I have fully explained to the above volunteer/ relative/ surrogate the nature and purpose of the above-mentioned research program (including the fact that the studies will not result in any direct therapeutic benefit and the extent, if any, to which the studies are experimental), the possible complications which may arise from both known and unknown causes as a result thereof and the consequences and risks, if any, if the volunteer decides to discontinue participation. It is my understanding that he/she understands the nature, purposes, and risks of these studies before he signs this informed consent. I have also offered to answer any questions relating to these studies and have fully and completely answered all such questions.

10- أقر بأنني قد شرحت للمتطوع/ لقريبه/ أو ولي أمره المذكور أعلاه بصورة كاملة طبيعة وأهداف مشروع البحث المذكور والمتضمن عدم وجود فائدة مباشرة على المشارك والي أي مدي (إن وجد) هي دراسة تجريبية كما قد شرحت المضاعفات المحتمل حدوثها من جراء هذه الدراسة سواء كانت لأسباب معروفة أو غير معروفة والعواقب والمخاطر المترتبة (إن وجدت) إذا قرر المتطوع إنهاء مشاركته بالدراسة كما إنه من المفهوم لدي بأنه قد فهم طبيعة الدراسة والغرض منها والمخاطر الناتجة عنها وذلك قبل توقيعه على الموافقة بالمشاركة ، ولقد قمت بتوضيح استعدادي للإجابة على أي أسئلة متصلة بهذه الدراسة ، وقمت فعلاً بالإجابة الشافية على جميع أسئلته المتعلقة بالدراسة.

Signature of Principal Investigator/ Delegate: _____

توقيع الباحث الرئيسي: _____

(Print Name): _____

الاسم (طباعة): _____

Date: _____

التاريخ: _____

إقرار بالموافقة على بحث
بدون فائدة مباشرة للمشاركين

APPENDIX 3: Informed Consent for Genetic Research

موافقة خطية على بينة للمشاركة في الدراسة

Title of Proposal:

عنـوان البحـث:

Part I –
Research Participant Information Sheet:

الجزء 1:
صفحة معلومات عن الدراسة للمتطوع في البحث

(Select the statement(s) that are appropriate for your research and modify as necessary. Add other statements as required. Delete statements or instructions that are not pertinent.)

(اختر الجملة (الجمل) التي تتناسب وبحثك وقم بإجراء التعديل أو التغيير حسبما يلزم ذلك. أضف بعض الجمل كما يتطلب . قم بإزالة أو حذف الجمل أو التعبير الذي لا يتناسب مع بحثك. تمسح الجمل الموجودة بين قوسين بعد الانتهاء من التعليمات التي تحتويها .)

A. Purpose of the Research:

أ. الهدف من البحث:

You are being asked to participate in a research project that involves genetic testing. Genetic testing means that tests will be done on a sample of your (blood/tissue/fluids) to study your genes. Genes are units of information inside the cells of our bodies, handed down from parent to offspring, that determine the structure of our individual bodies for traits like hair color, eye color, tendency for disease, and intelligence. Genes may also carry information about any medical conditions or diseases you may have or carry. You (and/or a member of your family) have been diagnosed with or are thought to be carriers of:

يطلب منك المشاركة في مشروع بحثي يشمل المورثات فحص (الجينات) . وهذا معناه إجراء اختبارات على عينات الجسم مثل عينات الدم ،الأنسجة و السوائل الجسدية لدراسة المورّثات. المورّثات هي وحدات المعلومات داخل خلايا أجسامنا ، وهي تنقل صفات أو مميزات معينة من الأجداد إلى الأحفاد, وذلك مثل لون الشعر ، لون العينين ، القابلية للإصابة بالأمراض و درجة الذكاء. كما تحمل المورّثات معلومات عن أعراض أو أمراض قد تكون مصاباً بها أو ناقلاً لها ، وكذلك عن أمراض معينة قد تكون قابلاً للإصابة بها.

لقد شخّص طبيبك حالتك المرضية ويشتبه في أنك أو أحد أفراد أسرتك مصابون أو ناقلون لمرض :

_____ _____

_____ _____

(name of condition). It is believed that by studying genes, doctors and scientists may be better able to this condition in the future.

(أذكر اسم المرض أو الحالة) ويعتقد العلماء والأطباء أنه بدراسات المورّثات سيكون في مقدورهم اكتشاف طبيعة هذا المرض ووضع العلاج المناسب له في المستقبل .

B. Description of the Research:

A (doctor/nurse/licensed technician) will collect _____(give amount) of blood from a vein in your arm or sample of _____

_____

(describe other specimens such as, skin, muscle, etc., and how they will be taken).

As well _____(give amount) of blood or sample of:_____

(describe other specimens such as, skin, muscle, etc., and how they will be taken) will also be taken from other members of your family.

The samples (will be/will not be) marked with a number that can be linked back to you.

These samples will be tested at the KFSH Research Center and stored there until the research project is complete. We expect this time to be: _____ years.

Other investigators including those from outside the KFSH&RC (will/ will not) have access to your samples. (There may be monetary/financial gain to the KFSH&RC from using your sample.)

At the completion of this study, you and your family members (will / will not) be informed of the results of the research, for each individual.

You (will / will not) be provided with the results of this research (if they are confirmed and relevant to your health, and when there is a way of actually using the information to maintain or improve your health status).

(A qualified genetic counselor will inform you of the results, so that you can get any additional information you may want.)

ب. وصف البحث:

سيجمع (الدكتور/الممرض/الفني المرخص له لممارسة المهنة) كمية من الدم مقدارها _____ من وريد في ذراعك أو سيجمع عينة من :

_____

_____

_____ (صف إن كان هنالك عينات أخرى مثل الجلد ، العضلات ، .. الخ وكيفية جمعها).

ستؤخذ عينة دم مقدارها _____ أو عينة من :

_____

_____ (صف عينات أخري مثل الجلد ، العضلات ..الخ وطريقة جمعها) من أفراد آخرين من أسرتك .

العينات التي أخذت منك أو من أفراد أسرتك (ستحمل/ سوف لا تحمل) رقماً يربطها بشخصك مباشرة.

ستفحص هذه العينات بمستشفى الملك فيصل التخصصي ومركز الأبحاث وتحفظ بالمستشفى حتى اكتمال مشروع البحث . ونتوقع أن تحفظ لمدة _____ سنة.

(قد / قد لا) يتمكن باحثون آخرون من مستشفى الملك فيصل التخصصي ومركز الأبحاث أومن خارجه الحصول على عيناتك واستخدامها . (من المحتمل أن تكون هنالك بعض المكاسب المادية لمستشفى الملك فيصل التخصصي ومركز الأبحاث من استخدام عيناتك).

عند الانتهاء من هذه الدراسة ، (سيتم إبلاغك/ سوف لن يتم إبلاغك) أنت أو أفراد أسرتك عن نتائج الأبحاث.

(ستُزوّد/سوف لن تُزوّد) بنتائج أبحاث هذه الدراسة إذا تأكدت صحتها و كانت وثيقة الصلة بصحتك، و إذا توفرت طريقة فعلية لاستخدام نتائج هذه الدراسة في المحافظة على حالتك الصحية أو لتحسينها.

(سوف يخبرك استشاري ذو كفاءة عالية في علم الجينات الوراثية عن النتائج لكي تستطيع الحصول على أي معلومات إضافية ترغب في معرفتها) .

C. Potential Risks and Discomforts:

ت – المتاعب والمخاطر المحتملة

The risks and discomfort may be related to the blood drawing procedures.
Blood drawing may cause discomfort from the needle stick, bruising at the site of the needle stick, or infection at the needle stick site. Infection at the needle stick site is very rare.

قد تكون المخاطر والمتاعب متّصلة بإجراءات أخذ الدم.

قد يسبّب أخذ عينات الدّم إزعاجاً ناتجاً عن الوخز بالإبرة, أو التكدم في موقع وخز الإبرة, أو الالتهاب في نفس الموقع وهذا نادر الحدوث.

You may feel dizzy or faint or the following side affects and discomforts:

ربما تشعر بالنعاس ، أو الإغماء أو الآثار الجانبية والمتاعب الصحية التالية:

_____ _____

_____ _____

_____ _____

(Describe risks and discomforts associated with obtaining other tissue samples described in Section B.)

(أشرح المخاطر والمتاعب الصحية المحتملة من أخذ العينات التي سبق شرحها في القسم ب).

You could experience stress from participating in this kind of research. If the tests show that you or anybody else in your family may develop:

ربما تشعر بضغط نفسي وتوتر عصبي من جراء المشاركة في مثل هذا النوع من الأبحاث . مثلاً إذا أظهرت الفحوصات أنك أو أي فرد من أسرتك ربما يظهر عندهم مرض :

_____ _____

_____ _____

(insert name of disease/condition), you and other family members could experience serious stress after receiving such information. You could learn that you do not have this medical problem but that your children do. You could also experience stress if you provide information about another family member's identity and health, and he/she does not want this research to include that information.

(وضح اسم المرض /الحالة) ، فربما تعاني أنت أو أفراد أسرتك من القلق والتوتر الشديد عند تلقي مثل هذه المعلومات .من جهة أخرى يمكن أن تكتشف بعد إجراء الدراسة أنك لست مصاباً بهذه الحالة المرضية، ولكن قد يعاني منها أطفالك ، ففي هذه الحالة أيضاً ستصاب بالقلق والتوتر . يمكن كذلك أن تعاني من التوتر إذا أدليت بمعلومات عن هويّة فرد آخر من العائلة أو عن حالته الصحية، و أنت تعلم أنّه لا يريد أن يكشف عن هذه المعلومات.

If an insurance company or employer learns that you have a high risk of developing

إذا علمت شركة تأمين أو صاحب عمل عن احتمال إصابتك بـمرض

_____ _____

(insert name of disease/condition), you may have problems obtaining health and/or life insurance or to get a job.

(وضح اسم المرض/الحالة) فقد تواجه صعوبات في الحصول على تأمين على الصّحّة أو على الحياة أو الحصول على عمل.

D. Potential Benefits:

If you do receive the results of this testing, you may receive information that reduces the uncertainty about the likelihood of developing

_____

(insert the condition/disease) and/or passing it on to your children. Obtaining the results may help you and other members to plan for the future. In some cases, if a form of treatment is available, early treatment of a disorder that runs in a family may improve the chances of a good outcome.

Although there may be no direct benefit to you or your family, the information gained from this research may help scientists and doctors to learn more about this condition.

E. Alternative to Participation

You are free not to participate in this study or to participate in only some parts of the study. (Describe partial participation).

_____
_____
_____

F. Cost/s Reimbursements

_____
_____
_____
_____
_____
_____
_____
_____
_____

ث. الفوائد المحتملة:

إذا تم تسليمك نتائج الفحوصات ، فربما تحتوي هذه النتائج على معلومات تقلل من نسبة الشك حول احتمال إصابتك بمرض:

_____

(وضح اسم المرض/الحالة) أو نقلها لأطفالك. الحصول على هذه النتائج قد تساعدك وقد تساعد أشخاص آخرين في التخطيط للمستقبل . في بعض الحالات إذا تيسر نوع من العلاج للمرض أو الخلل الوراثي الموجود في أسرتك فان المعالجة المبكرة لك أو لأفراد أسرتك قد تعطي فرصاً أفضل لنتائج جيدة .

بالرغم من أنك قد لا تجني فوائد مباشرة لك أو لأفراد أسرتك من هذه الدراسة ، لكن المعلومات المكتسبة من هذه البحوث قد تساعد العلماء و الأطباء على اكتشاف مسببات هذا المرض بشكل أفضل.

ج.بدائل للمشارك:

إن لك حريّة الاختيار في عدم المشاركة في هذه الدراسة أوالمشاركة في جزء منها (الرجاء توضيح المشاركة الجزئية).

_____
_____
_____

ح. التكاليف /التعويضات المالية :

_____
_____
_____
_____
_____
_____
_____

G. Termination of Participation

If you prefer to stop your participation in this research, you may ask Dr. _____ (insert name of investigator) to destroy any record of your participation in this research and to destroy any sample with your name on it or that may be linked to you. Your identity will be removed from all data and research records. [However, data obtained from your sample prior to your withdrawal may be used for publication and other research purposes after your personal information have been removed.

H. Compensation / Treatment:

In the event of any injury resulting from participation in the research study, hospitalization and professional attention, if these are required, will be provided at KFSH at no cost to you. Financial compensation from KFSH&RC is not available.

I. Voluntary Participation:

Participation in this study is voluntary. You will suffer neither penalty nor loss of any benefits to which you are otherwise entitled should you decide not to participate.
Withdrawal from this research study will not affect your ability to receive medical care available at KFSH&RC.

If you wish, significant new findings developed during the course of the research study that might be reasonably expected to affect your willingness to continue to participate in the research study will be provided to you.

خ.- إنهاء المشاركة:

إذا آثرت الانسحاب من المشاركة في هذا البحث ، يمكن أن تطلب من الباحث : _____ (الرجاء توضيح اسم الباحث) إتلاف أي سجلّ يحتوي على المعلومات الخاصة بمشاركتك في هذا البحث و إتلاف أي عينة موجودة باسمك أو مرتبطة بك . سوف تزال بيانات هويتك وكل ما يدل على شخصيتك من جميع السجلات و التقارير المتصلة بهذا البحث . (مهما يكن فإن المعلومات التي يتم الحصول عليها من عيناتك قبل انسحابك قد تستخدم في أغراض النشر العلمية وفي أغراض بحثية أخرى بعد إزالة معلوماتك الشخصية منها.

خ. التعويضات /المعالجة:

في حالة حدوث أي ضرر – لا قدر الله – من جراء المشاركة في هذا البحث فسيوفر لك مستشفى الملك فيصل التخصصي ومركز الأبحاث التنويم والرعاية الصحية اللازمة بدون أن يكلفك ذلك أي أعباء مالية .ولكنك لن تستلم أي تعويضات مالية من مستشفى الملك فيصل التخصصي ومركز الأبحاث.

د. المشاركة التطوعية:

المشاركة في هذه الدراسة تطوعية . إذا قررت عدم المشاركة فلن تعاني من أي عقوبات ولن يؤثر قرارك هذا على حقك في الحصول على المميزات المكفولة لك .

الانسحاب من هذه الدراسة البحثية لن يؤثر على قدرتك في تلقي الرّعاية الطّبّيّة في مستشفى الملك فيصل التخصصي ومركز الأبحاث.

إذا كنت ترغب ، فسوف يُقدم لك كل النتائج الضرورية التي اكتشفت خلال مراحل هذا البحث والتي من المتوقع أن تؤثر على رغبتك في الاستمرار في المشاركة في البحث.

J. Confidentiality:

ذ. السريـة:

An example of linked sample:

مثال عينة مرتبطة بشخصك :

When your sample is taken, it will be labeled with a number. Dr._____ will link this number to you, along with information about you, such as your age, gender, and the medical condition you or other family members (may) have. No other persons will be able to identify you as the provider of the sample. Dr. _____ will not provide the results of the research on your sample to any other party in such a way that you may be identified. If the results are published in a medical journal, or presented at a medical meeting, no identifying information will be included.

عندما تؤخذ العينة منك ، سوف تلصق بها لاصق يحمل رقماً، سيقوم الدكتور _____ بربط هذا الرقم بك وبالمعلومات الخاصة بك ، مثل عمرك ، نوع الجنس (ذكر /أنثى) والحالة الصحية لك أو لأفراد أسرتك. لن يستطع شخص آخر أن يتحقق من هويتك ويتعرف عليك كمعطي للعينة أو بمعنى آخر لن يكتشف أحد أنك صاحب هذه العينة . لن يعطي الدكتور_____ نتائج الأبحاث المستخدمة فيها عيناتك لأي أحد بشكل يكشف عن هويتك و إذا نشرت نتائج هذه الدراسة في مجلات علمية أو قدمت في مؤتمرات طبية ، فلن تحتوى على معلوماتك الشخصية .

The results of this research will always (not) be kept separate from your general medical records.

ستبقى دائماً / لن تبقى نتائج هذا البحث محفوظة بطريقة منفصلة عن سجلك الطبي العام بالمستشفى .

Your identity and medical record, as a participant in this research study, will remain confidential with respect to any publications of the results of this study. Your medical record in connection with this study will/will not be kept confidential to the extent permitted by the law.
Furthermore, the Research Advisory Council or the agency sponsoring this research in accordance with applicable laws and regulations may review your medical record.
The results of this study will not be linked to you personally or to your family. The results (may/ may not) be linked to your ethnic or social background such as your tribe, nationality, or social status.

ستظل هويتك وسجلاتك الطبية ، كمشارك في هذه الدراسة سرية في أي منشورات أو تقارير ذات صلة بنتائج هذا البحث ، كما (سيبقى / لن يبقى) سجلك الخاص بهذه الدراسة سرياً في الحدود التي يسمح بها القانون.

وكذلك يمكن الاطلاع على هذا السجل من قبل المجلس الاستشاري للأبحاث أو الجهة الداعمة للدراسة وذلك في حدود النظم والقوانين المطبقة بهذا الخصوص.

إن نتائج هذه الدراسة لن تكون فيها ما يعرف به شخصك أو أحد من أفراد أسرتك . (من الممكن/من غير الممكن) أن يُعْرف بها انتماؤك العرقي ، أو خلفيتك الاجتماعية مثل القبيلة ،أو الجنسية ، أو حالتك الاجتماعية.

A copy of this information sheet (Part I) and a signed copy of the consent form (Part II) will be given to you.

سوف تعطي نسخة موقعة من صفحة المعلومات هذه (الجزء الأول) ونسخة موقعة من نموذج الموافقة (الجزء الثاني).

PART II: Authorization for Genetic Research

الجـز الثاني : المـوافقـة

AUTHORIZATION OF VOLUNTARY PARTICIPANT WHO IS NOT EXPECTED TO OBTAIN ANY DIRECT BENEFIT:

الموافقة على المشاركة في الدراسة التي لا يتوقع أن يكون لها فائدة مباشرة للمشارك

Name of Research Participant:_____

_____

اسم المشـارك في البحـث:_____

_____

MRN number or full address:_____

_____

رقم السجل الطبي أو العنوان بالكامل:

_____

_____

1. I hereby volunteer to participate in a research program under the supervision of Dr._____ and his/her associates at KFSH&RC that will involve (provide a brief summary).

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

1. أتطوع للمشاركة في هذه الدراسة تحت إشراف الدكتور :

_____

والمشاركين/المشاركات معه في مستشفى الملك فيصل التخصصي ومركز الأبحاث والتي تتضمن (الرجاء إعطاء تلخيص مختصر :

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

2.	**INFORMATION RESULTING FROM THE RESEARCH PROJECT**			**المعلومات الناتجة من الدراسة**	2
Please tick and initial all of the following:				الرجاء وضع علامة (X) على أحد الخيارات التالية والتوقيع	
a)	I would like for KFSH&RC investigators to contact me and give me a summary of the results of this research project.			أرغب من الباحثين في مستشفى الملك فيصل التخصصي ومركز الأبحاث الاتصال بي وإعطائي ملخصا عن نتائج الدراسة.	أ-
YES ☐	NO ☐	Initials _____		التوقيع :_____	لا ☐	نعم ☐
b)	I would like for KFSH&RC investigators to contact me and inform me of my own results (my family results) in this research project.			أرغب من الباحثين في مستشفى الملك فيصل التخصصي ومركز الأبحاث الاتصال بي وإعلامي عن النتائج الخاصة بي (و/ أو بأسرتي) المتعلقة بهذه الدراسة.	ب-
YES ☐	NO ☐	Initials _____		التوقيع :_____	لا ☐	نعم ☐
3.	**THE USE OF MY SAMPLE IN OTHER RESEARCH PROJECTS**			**استخدام عيناتي في مشاريع بحثية أخرى**	3
Please tick and initial all of the following:				الرجاء وضع علامة (X) على أحد الخيارات التالية والتوقيع	
a)	I would like for KFSH&RC investigators to contact me to obtain my permission for <u>any</u> research project using my sample, if the Research Advisory Council approves such research.			أرغب من الباحثين في مستشفى الملك فيصل التخصصي ومركز الأبحاث الحصول على موافقتي قبل استخدام عيناتي في أي دراسة أخرى وافق عليها المجلس الاستشاري للأبحاث.	أ-
YES ☐	NO ☐	Initials _____		التوقيع: _____	لا ☐	نعم ☐
b)	I would like for my sample to be used for other research projects, without contacting me, if such projects are directly related to this research project, as judged by the Research Advisory Council.			أرغب في استخدام عيناتي في دراسات أخرى بدون الاتصال بي ، إذا كانت هذه الدراسات لها علاقة مباشرة بهذه الدراسة وذلك إذا قضى المجلس الاستشاري للأبحاث بذلك .	ب-
YES ☐	NO ☐	Initials _____		التوقيع: _____	لا ☐	نعم ☐
c)	I would like for my sample to be used for other research projects, without contacting me, even if such projects are related, but not directly so, to this research project, as judged by the Research Advisory Council.			أرغب في استخدام عيناتي في دراسات أخرى ، دون الاتصال بي حتى إذا كانت هذه الدراسات لها علاقة بهذه الدراسة وإن كانت علاقة غير مباشرة وذلك إذا قضى المجلس الاستشاري للأبحاث بذلك	ت-
YES ☐	NO ☐	Initials _____		التوقيع: _____	لا ☐	نعم ☐

d)	I would like for my sample to be used for any other approved research projects without contacting me, as long as I cannot be linked, in any way, to the sample.			أرغب في استخدام عيناتي في أي دراسة قد وافق عليها المجلس الاستشاري للأبحاث وذلك بدون الاتصال بي مادام أن عينتي لا يمكن ربطها بي بأي حال من الأحوال .	ث-
YES ☐	NO ☐	Initials _____		التوقيع: _____	لا ☐	نعم ☐
e)	Under no circumstances may my sample be used for any other research projects. My samples must be destroyed at the end of this present project.			يجب أن لا تستخدم عيناتي في دراسات بحثية أخرى تحت أي ظروف. يجب إتلاف عيناتي عند نهاية هذا المشروع البحثي .	ج-
YES ☐	NO ☐	Initials _____		التوقيع: _____	لا ☐	نعم ☐
4.	**THE USE OF MY SAMPLE BY OTHER INVESTIGATORS FROM OTHER INSTITUTIONS:**			**استخدام عيناتي من قبل باحثين آخرين من مؤسسات أخرى:**	-4
Please tick and initial:				الرجاء وضع علامة على أحد الخيارات التالية (X) والتوقيع	
	I agree that my sample can be used by investigators outside the KFSH&RC as long as such use is approved by the Research Advisory Council.			أوافق على أن يستخدم عيناتي باحثون من خارج مستشفى الملك فيصل التخصصي ومركز الأبحاث طالما قد وافق المجلس الاستشاري للأبحاث على ذلك	
YES ☐	NO ☐	Initials _____		التوقيع: _____	لا ☐	نعم ☐
5.	**MONETARY/FINANCIAL GAIN FROM RESEARCH**			**الكسب المادي من الأبحاث**	-5
Please initial.				**الرجاء التوقيع:**	
	I understand that KFSH&RC may obtain monetary/financial Gain from the use of my sample in research and that such gain will not be shared with me.			أفهم أن مستشفى الملك فيصل التخصصي ومركز الأبحاث ربما يتحصل على كسب مادي من استخدام عيناتي في البحث وأنه لن يكون لي حصة في هذا الكسب المادي .	
	Initials _____			التوقيع : _____	

6.	I acknowledge that I have read, or had explained to me in a language I understand, the attached Research Participant Information sheet. Dr._____ has explained to me the nature and purpose of these studies, including the extent to which they are experimental. The possible discomforts, symptoms, side effects and risks reasonably to be expected, and the possible complications which may arise from both known and unknown causes as a result of this study, have also been explained. I have had the opportunity to ask any questions with respect to this study and all questions I asked were answered to my satisfaction.	أقر بأنني قد قرأت - أو شرح لي بلغة مفهومة صفحة المعلومات المرفقة المتعلقة بمشاركتي في هذا البحث. وأن الدكتور : _____ قد شرح لي طبيعة وهدف هذه الدراسات ومدى كونها تجريبية والآثار الجانبية أو المتاعب الصحية أو الأعراض أو المخاطر المتوقع حدوثها وجميع المضاعفات المحتملة والناتجة عن أسباب معروفة أو غير معروفة مرتبطة بهذه الدراسة. كما أقر بأنه قد أتيحت لي الفرصة لتوجيه ما لدي من أسئلة متعلقة بموضوع الدراسة وإني قد حصلت على الإجابات الشافية.	-6
7.	I understand that these studies are not intended to be of any direct therapeutic benefit to me and I voluntarily accept the risks and discomforts associated with these studies.	أدرك أن هذه الدراسات ليست لها أي فائدة علاجية مباشرة لي ومع ذلك أتطوع بالمشاركة فيها مع علمي بالمخاطر والمتاعب التي قد تنتج عنها0	-7
8.	I understand that I am entitled to reimbursement for expenses incurred as a result of my participation in this study.	أفهم أنه من حقي استرداد المصاريف التي أنفقتها من أجل المشاركة في هذه الدراسة.	-8
9.	I understand that, in order to provide the data by which to measure the effectiveness of these studies, Dr._____ and his/her associates may carry out certain routine preliminary diagnostic procedures that have been fully described and explained to me. Should these indicate any abnormality, my participation in the aforementioned studies will not be allowed. I am unaware of any preexisting medical or emotional problem that would make it unwise for me to participate in these studies.	**كما أفهم بأنه ومن أجل الحصول على المعلومات التي يمكن من خلالها تقويم كفاءة وفعالية هذه الدراسة فان الدكتور _____ أو** أحد المشاركين معه قد يجرون لي بعض الإجراءات التشخيصية التمهيدية بعد أن يتم شرحها لي تفصيلا. وأنه إذا كانت نتائج هذه الإجراءات غير طبيعية فإنه لن يسمح لي بالمشاركة في الدراسات المذكورة سابقا . أقر بأنني حسب علمي لا أعاني من أي مشاكل طبية أو نفسية قد يجعل من غير الحكمة أن أشارك في هذه الدراسة .	-9

10.	I understand that I am free to withdraw this authorization and discontinue participation in these studies at any time. The consequences and risks of such withdrawal during the course of the studies have been explained to me. I understand that such withdrawal will not affect my ability to receive any medical care made necessary by the performance of such studies or to which I might be otherwise entitled.	أفهم بأن لي مطلق الحرية بسحب هذه الموافقة الخطية وإنهاء مشاركتي في هذه الدراسات في أي وقت أشاء وقد تم شرح جميع العواقب والمخاطر المترتبة على انسحابي من هذه الدراسة . كما أفهم بأن هذا الانسحاب لن يؤثر على حقي في تلقي العناية الطبية اللازمة والتي تتطلبها المشاركة في إنجاز هذه الدراسة أو التي استحقها في الأحوال العادية .	-10
11.	I grant this consent as a voluntary contribution in the interest of medical research.	أمنح هذه الموافقة على المشاركة متطوعاً في هذه الدراسة رغبة في الإسهام في البحوث الطبية	-11
12.	I confirm that I have read, or had read to me, the foregoing authorization and that all blanks or statements requiring completion were properly completed before I signed.	أؤكد بأنني قد قرأت – أو قرأت لي هذه الموافقة الخطية وأن كل الفراغات و الإقرارات قد تمت تعبئتها قبل توقيعي عليها.	-12
Research Subject or Surrogate Signature: Print Name_____ Date: _____ Signature: _____ Relationship :_____ *(IF SIGNED BY PERON OTHER THAN THE RESEARCH SUBJECT)*		المريض أو ولي الأمر: الاسم : _____ التاريخ : _____ التوقيع :_____ صلة القرابة :_____ (إذا كان الموقع غير المريض المشارك)	

13. WITNESS/TRANSLATOR	-13 الشاهد/المترجم
I confirm that I have accurately translated and/ or read the information to the subject: **Witness:** Print name:_____ KFSH&RC ID#:_____ Signature : _____ Date: _____	أقر بأنني قد قرأت / أو ترجمت للمشارك هذه المعلومات بشكل صحيح. الشاهد: الاسم : _____ رقم البطاقة : _____ التوقيع : _____ التاريخ : _____
14. Investigator or Delegate I have fully explained to the above volunteer/ relative/ surrogate the nature and purpose of the above-mentioned research project, including the fact that the studies will not result in any direct therapeutic benefit and the extent to which the studies are experimental. I have also explained the possible complications which may arise from both known and unknown causes as a result and the consequences and risks, if the volunteer decides to discontinue participation. It is my belief that he/she understands the nature, purposes, and risks of these studies before he/she signs this informed consent. I have fully and completely answered all questions to the best of my ability. I have also offered to answer any questions relating to these studies that may arise in the future. **Investigator or Delegate** Signature :_____ Print Name : _____ I.D. Number : _____ Date: _____	**14 - الباحث أو ممثله** أقر بأنني قد شرحت للمتطوع/ لقريبه/ أو ولي أمره المذكور أعلاه بصورة كاملة طبيعة وأهداف الدراسة المذكورة.وأنه لا توجد فائدة مباشرة له وإلى أي مدي هي دراسة تجريبية .و قد شرحت له أيضاً المضاعفات المحتمل حدوثها من جراء المشاركة في هذه الدراسة سواء كانت لأسباب معروفة أو غير معروفة, والعواقب والمخاطر المترتبة إذا ما قرر المتطوع إنهاء مشاركته بالدراسة . في اعتقادي أنه / أنها قد فهم / فهمت طبيعة الدراسة والغرض منها والمخاطر الناتجة عنها وذلك قبل توقيعه / توقيعها على الموافقة الخطية ، ولقد قمت بتوضيح استعدادي للإجابة على أي أسئلة له تتعلق بهذه الدراسة ، وقمت فعلاً بالإجابة الشافية على جميع الأسئلة التي سئلت . .وقد عرضت عليه استعدادي التام للإجابة على أي أسئلة تتعلق بهذه الدراسات في المستقبل . **الباحث أو ممثله :** التوقيع :_____ الاسم : _____ رقم بطاقة المستشفى : _____ التاريخ: _____

Appendix 4

GLOSSARY OF LAY TERMS FOR USE IN PREPARING INFORMED CONSENT DOCUMENTS

ABSORB	Take up fluids, take into the body	امتصاص السوائل
ACIDOSIS	Condition when blood contains more acid than normal	الحالة التي يحوي فيها الدم مستوى من الحموضة يتجاوز المعدل الطبيعي
ACUITY	Clearness, keenness, esp. of vision , hearing	وضوح / حدة / دقة النظر
ACUTE	New, recent, sudden	جديد / مفاجئ
ADENOPATHY	Swollen lymph nodes (glands)	تضخم في العقد الليمفاوية
ADJUVANT	Helpful, assisting, aiding	مساعد / إضافي
ADJUVANT TREATMENT	Added treatment	علاج إضافي / مساعد
ADVERSE EFFECT	Side effect of a drug that is understandable; examples include discomfort or harm or an organ or tissue	آثار / أعراض جانبية
ALLERGIC REACTION	May include rash, trouble breathing, fever, and/or diarrhea	مضاعفات تحسسية كالطفح الجلدي أو صعوبة التنفس أو الحمى أو الإسهال
AMBULATE / ATION / ORY	Walk, able to walk	قادر على أن يمشي / مشي
ANAPHYLAXIS	Serious, potentially life threatening allergic reaction including reduced blood pressure and difficulty breathing	مضاعفة تحسسية خطيرة
ANEMIA	Decreased red blood cells; low red blood cell count which can cause tiredness or fatigue	فقر الدم / نقص في عدد خلايا الدم الحمراء
ANESTHETIC (local)	A drug or agent used to numb an area of your body to permit surgery or biopsy	مخدر موضعي
ANESTHETIC (general)	A drug or agent used to produce unconsciousness and to decrease the feeling of pain; its put you to sleep to allow surgery	مخدر عام / دواء يستخدم لتخفيف أو إنهاء الشعور بالألم من خلال تنويم المريض
ANGINA	Chest pain from too little blood flow to the heart	ذبحة صدرية / ألم شديد في الصدر ناتج عن نقص وصول الدم إلى القلب

ANGINA PECTORIS	Chest pain from too little blood flow to the heart	ذبحة صدرية / ألم شديد في الصدر ناتج عن نقص وصول الدم إلى القلب
ANTECUBITAL	Area inside the elbow	منطقة داخل المرفق
ANTIBIOTIC	Drug that kills bacteria and other germs	مضاد حيوي / دواء قاتل للجراثيم
ANTIBODY	Protein made in the body in response to foreign substance; attacks the foreign substance and protects you from infection	أجسام مضادة / بروتينات ينتجها جسم الإنسان كرد فعل لوجود المواد الغريبة ولوقاية الجسم من الأمراض
ANTICONVULSANT	Drug used to prevent or treat seizures	دواء مضاد لحدوث التشنجات العصبية
ANTILIPIDEMIC	A drug that decreases the level of fat(s) in the blood	دواء مضاد لارتفاع مستوى الدهون في الدم
ANTIMICROBIAL	Drug that kills bacteria and other germs	مضاد حيوي / دواء قاتل للجراثيم
ANTIRETROVIRAL	Drug used to treat HIV or other diseases caused by viruses	دواء مضاد لفقدان المناعة المكتسبة
ANTIVIRAL	Drug used to treat diseases caused by viruses	دواء لعلاج الأمراض الناتجة عن الفيروسات
ANTITUSSIVE	A drug used to reduce coughing	دواء مضاد للسعال
ARRHYTHMIA	Any change form the normal heartbeat (abnormal heartbeat)	اضطراب ضربات القلب
ASPIRATION	Material entering the lungs following vomiting	دخول السوائل أو الطعام إلى مجرى الجهاز التنفسي
ASSAY	Lab test	تحليل مخبري
ASSESS	To learn about	يقيم / يفحص
ASTHMA	A lung disease associated with narrowing of the breathing passages in the lungs	ربو
ASYMPTOMATIC	Without symptoms	خال من الأعراض
AXILLA	Armpit	الإبط
BENIGN	Not harmful, usually without serious consequences, but with some exceptions, e.g., benign brain tumor may have serious consequences	حميد / غير خبيث / لا يؤدي إلى مضاعفات خطيرة
B.I.D.	Twice a day	مرتان يوميا
BINDING / BOUND	Carried by, stuck together, transported	ارتباط / مرتبط
BIOAVAILABILITY	The portion of a drug that enters the blood; relates to drugs taken by mouth	مدى توافر دواء / مادة ما للجسم

BLOOD PROFILE	Series of blood tests	سلسلة فحوصات مخبرية للدم
BOLUS	An amount given all at once	جرعة / كمية كبيرة
BONE MASS / DENSITY	The amount of calcium in a given amount of bone	كتلة كثافة العظم
BRADY-ARRHYTHMIAS	Slow, irregular heartbeats	ضربات قلب بطيئة وغير طبيعية
BRADYCARDIA	Slow heartbeat	بطء نبض القلب
BRONCHOALVEO-LARLAVAGE	Wash out part of the lung with salt water to obtain lung cells for laboratory tests	غسل بطانة الرئة بمحلول خاص للحصول على خلايا للفحص المخبري
BRONCHOSCOPY	Insertion of a flexible tube through the nose and voice box to examine the inside of the lung	فحص الرئة من خلال المنظار
BRONCHOSPASM	Narrowing of the breathing passages of the lung causing difficulty breathing and wheezing	صعوبة التنفس بسبب تضيق الشعب الهوائية
CARCINOGENIC	Capable of causing cancer	مسبب لحدوث السرطان
CARCINOMA	Type of cancer	سرطان / ورم خبيث
CARDIAC	Pertains to the heart	ذو علاقة / متعلق بالقلب
CARDIOVERSION	Return of normal heartbeat by electric shock or drugs	استعادة ضربات القلب الطبيعية عن طريق الصدمة الكهربائية أو الأدوية
CATHETER	A tube inserted into the body for withdrawing or introducing fluids (i.e. a Foley)	قسطرة / أنبوب بلاستيكي رفيع يستخدم لسحب / نقل السوائل من وإلى الجسم
CATHETER (Indwelling epidural)	A tube placed near the nerves in the spinal cord used to administer anesthesia during an operation	قسطرة توضع داخل العمود الفقري لإدخال المادة المخدرة
CEREBRAL TRAUMA	Damage to the brain	رض الدماغ
CONGESTIVE HEART DISEASE (CHD)	Hardening of the arteries of the heart	مرض القلب الناجم عن اعتلال الشرايين المغذية للقلب
CHEMOTHERAPY	Treatment of disease, usually cancer, by drugs	علاج كيماوي / مادة كيماوية لعلاج الأورام السرطانية
CHRONIC	Continuing for a long time	مزمن
CLINICAL	Pertaining to medical care	ذو علاقة بالعناية الطبية
CLINICAL TRIAL	An experiment involving patients	بحث عن تأثيرات علاج ما على الإنسان
COGNITIVE TESTS	Tests of thinking abilities	اختبار مستوى الذكاء

COMPLETE RESPONSE	Total disappearance of disease	اختفاء تام للمرض
CONSOLIDATION PHASE	Treatment phase intended to make a remission permanent, follows induction	المرحلة العلاجية التي تتلو بدء العلاج وتهدف إلى تحقيق الشفاء التام
CONTRAINDICATED	Should not be used	يتعين تفاديه
CONTROL	Healthy volunteer	شخص أو شيء يستخدم كأساس للمقارنة مع شخص أو شيء آخر
CONTROLLED TRIAL	Study in which the experimental treatment or procedure is compared to a standard (control) treatment or procedure	بحث تجري فيه مقارنة علاج / إجراء تجريبي مع علاج / إجراء معروف سابقا
COOPERATIVE GROUP	Association of multiple institutions to perform clinical trials together	قيام أكثر من جهة متخصصة بالتعاون في إجراء أبحاث سريرية مشتركة
CORONARY	Pertains to the blood vessels that supply the heart	ذو علاقة بالشرايين التي تغذي عضلة القلب بالدم
CORONARY HEART DISEASE	Hardening of the arteries of the heart	مرض تصلب شرايين القلب
CT SCAN (CAT) (Computerized tomography)	Computerized series of x-rays	تصوير مقطعي بواسطة استخدام الأشعة والكومبيوتر
CULTURE	Test for infection or organisms that could cause infection	فحص مخبري يهدف إلى التعرف على نوع الجرثومة المسببة للمرض
CVA (cerebrovascular accident)	Stroke	جلطة / سكتة دماغية
DIASTOLIC	Lower number in blood pressure reading	الرقم السفلي لضغط الدم
DISTAL	Toward the end, away from the center of the body	باتجاه الأطراف / بعيدا عن المحور
DIURETIC	“Water pill” or drug that causes increase in urination	مدر للبول
DOPPLER	Sound waves	موجات صوتية
DOUBLE BLIND	Study in which neither investigators nor subjects know what drug the subject is receiving	البحث الذي يجهل فيه كل من الباحث والمريض العلاج الذي سيتناوله المريض
DYSPLASIA	Abnormal cells	خلايا غير طبيعية
ECHOCARDIOGRAM	Sound wave test of the heart	تصوير القلب بالأمواج الصوتية
EDEMA	Increased fluid in body tissues, swelling	تجمع السوائل في الجسم
EEG (electroencephalogram)	Recording of the electric waves in the brain	تخطيط الدماغ الكهربائي
EFFICACY	Effectiveness; how well something works	قوة العلاج وفاعليته

ELECTRO CARDIOGRAM	Electrical tracing of heartbeat (ECG or EKG)	تخطيط القلب الكهربائي
ELECTROLYTE IMBALANCE	Imbalance of minerals in the blood (i.e. potassium, sodium)	اختلال مستوى المعادن في الدم
EMESIS	Vomiting	تقيؤ / ترجيع / تطريش
EMPIRIC	Based on experience	معتمد على الخبرة والتجربة الشخصية
ENDOSCOPIC EXAMINATION	Insertion of a flexible tube with a light to examine an internal part of the body	فحص أعضاء الجسم الداخلية من خلال أنبوب دقيق يدخل داخل الجسم
ENTERAL	Given through the stomach or intestines	عن طريق المعدة أو الأمعاء
EPIDEMIOLOGIC	Referring to the study of the distribution and population characteristics of diseases	ذو علاقة بالدراسات المسحية
EPIDURAL	A tube placed near the nerves in the spinal cord used to administer anesthesia during operations	خارج النخاع الشوكي
EXTRAVASATE	To leak outside of a blood vessel	تسرب خارج جدران الأوعية الدموية
EXPEDITED REVIEW	Rapid review of a protocol by the IRB chair without full committee approval, permitted with certain low risk research	مراجعة سريعة للبحث من قبل رئيس اللجنة دون انتظار موافقة جميع أعضاء اللجنة
FDA	U.S. Food and Drug Administration, the branch of Federal government which approves new drugs	الإدارة الأميركية للغذاء والدواء وهي إحدى أقسام الحكومة الفيدرالية التي تملك حق إعطاء الموافقة على استخدام الأدوية الجديدة
FIBRILLATION	Irregular beat of the heart or other muscle	رجفان عضلة القلب أو أية عضلة أخرى
GASTROINTESTINAL	Relating to the stomach and intestines	معدي / معوي
GASTROINTESTINAL	Relating to the stomach and intestines	معدي / معوي
GASTROINTESTINAL	Relating to the stomach and intestines	معدي / معوي
GENERAL ANESTHESIA	A drug or agent used to produce unconsciousness and to decrease the feeling of pain; it puts you to sleep to allow surgery	تخدير عام / تنويم المريض دوائيا حتى لا يشعر بالألم
GLUCOSE	A sugar	سكر

GOUT	A disease that causes a painful inflammation of the joints	مرض النقرس / داء المفاصل
HEMATOCRIT	Amount of red blood cells in the blood	كمية الخلايا أو كريات الدم الحمراء في الدم
HEMATOMA	A bruise, a black and blue mark	تجمع الدم نتيجة لنزف داخلي
HEMODYNAMIC MEASURING	Measuring of blood flow	قياس جريان الدم
HEMOGLOBIN	A substance in the blood that carries oxygen	المادة التي تنقل الأوكسجين في الدم
HEMOLYSIS	Breakdown of red blood cells	انحلال خلايا الدم الحمراء
HEPARIN LOCK	A plastic tube with blood thinner that is placed in a vein to give injections or take out blood	إبرة خاصة توضع داخل الوريد وتملأ بدواء مانع لتجلط الدم
HEPATIC	Refers to the liver	ذو علاقة بالكبد / كبدي
HEPATOMA	Cancer or tumor of the liver	سرطان الكبد
HOLTER MONITOR	A portable machine for recording heartbeats over a period of time	جهاز متنقل لتسجيل ضربات القلب
HYPERCALCEMIA	Increased level of calcium in the blood	ارتفاع مستوى الكالسيوم في الدم
HYPERKALEMIA	Increased level of potassium in the blood	ارتفاع مستوى البوتاسيوم في الدم
HYPERNATREMIA	Increased level of sodium in the blood	ارتفاع مستوى الصوديوم في الدم
HYPERTENSION	High blood pressure	ارتفاع ضغط الدم
HYPOCALCEMIA	Reduced level of calcium in the blood	انخفاض مستوى الكالسيوم في الدم
HYPOKALEMIA	Reduced level of potassium in the blood	انخفاض مستوى البوتاسيوم في الدم
HYPONATREMIA	Reduced level of sodium in the blood	انخفاض مستوى الصوديوم في الدم
HYPOTENSION	Low blood pressure	انخفاض ضغط الدم
HYPOXEMIA	A decrease of oxygen in the blood	انخفاض مستوى الأوكسجين في الدم

IATROGENIC	Caused by a physician or by treatment	ناتج بسبب الطبيب أو المعالجة الطبية
IDE	Investigational Device Exemption; the license to test an unapproved new medical device	ترخيص استثنائي لاستخدام جهاز طبي جديد غير موافق على استخدامه
IDIOPATHIC	A disorder for which the cause is unknown	غير معروف السبب
ILLICIT DRUGS / SUBSTANCES	Illegal drugs	أدوية / مواد غير مسموح باستخدامها وتداولها
IMMUNE SYSTEM	The system in the body that reacts to foreign or occasionally one's own proteins	جهاز المناعة في الجسم
IMMUNOGLOBULIN	A substance produced by the body that binds to a foreign substance	البروتين المناعي المضاد
IMMUNOSUPPRESSIVE	Drug which reduces the body's immune response, used in transplantation and diseases caused by disordered immunity	مضعف للمناعة
IMMUNOTHERAPHY	Use of drugs to help the body's immune (protection) system; usually used to destroy cancer cells	المعالجة المقوية للمناعة
IND	Investigational New Drug, the license to test an unapproved new drug	ترخيص استثنائي لاستخدام دواء جديد غير موافق على استخدامه
INDUCTION PHASE	Beginning phase or stage of a treatment	مرحلة بدء العلاج
INDURATION	Hardening	تصلب / ارتشاح
INFARCT	Death of tissues because of lack of blood supply	موت الخلايا نتيجة نقص كمية الدم التي تغذيها
INFUSION	Introduction of a substance into the body, usually into the blood through a vein	حقن
INGESTION	Eating; taking by mouth	تناول عن طريق الفم
INTRAMUSCULAR	Into the muscle; within the muscle	داخل العضل
INTRATHECAL	Injected into the space around the spinal cord	داخل السائل المحيط بالنخاع الشوكي

INTRAVENOUS (IV)	Injected into a vein	داخل الوريد
INTRAVESICAL	Into the bladder	داخل المثانة البولية
INTUBATION	The placement of a tube into the throat (trachea) to assist breathing	إدخال أنبوب خاص في مجرى التنفس
INVASIVE PROCEDURE	Puncture, opening or cutting of the skin	إجراء يتطلب وخز الجلد أو قطعه
ISCHEMIA	Decreased oxygen in a tissue (usually because of decreased blood flow)	نقص تدفق الدم في الشرايين
LEUKOPENIA	Low white blood cell count which can increase the possibility of infection	انخفاض عدد خلايا الدم البيضاء
LIPID CONTENT	Fat content in the blood	مستوى الدهون في الدم
LOCAL ANESTHESIA	A drug or agent used to numb an area of your body to permit surgery or biopsy	تخدير موضعي
LOCALIZED	Restricted to one area, limited to one area	موضعي / خاص بمنطقة محددة من الجسم
LUMEN	The cavity of an organ or tube (e.g. blood vessels)	جوف
LYMPHANGIOGRA-PHY	An x-ray of the lymph nodes or tissues after injection of dye in lymph vessels (e.g. in feet)	تصوير بالأشعة للغدد أو الأنسجة الليمفاوية بعد حقنها بصبغة خاصة
LYMPHOCYTE	A type of white blood cell important in immunity and defense against infection	أحد أنواع خلايا الدم البيضاء المهمة للاحتفاظ بمناعة الجسم والدفاع عنه ضد الأمراض
LYMPHOMA	A cancer of the lymph nodes (or tissues)	سرطان الخلايا الليمفاوية
LUMBAR PUNCTURE SPINAL TAP	Placement of a needle between the bones in the back to remove some of the fluid around the spinal cord	سحب السائل المحيط بالنخاع الشوكي من خلال إبرة خاصة
MALAISE	A vague feeling of bodily discomfort, feeling bad	الشعور بنقص في الصحة
MALIGNANCY	Cancer or other progressively enlarging and spreading tumor, usually fatal if not successfully treated	سرطان

MEDULLOBLASTOMA	A type of brain tumor	أحد أنواع أورام الدماغ الخبيثة
MEGALOBLASTOSIS	Change in red blood cells	تغير في كريات الدم الحمراء
METABOLIZE	Process of breaking down substances in cells to obtain energy	عملية تحلل المواد في الخلايا لإنتاج الطاقة
METASTASIS	Spread of cancer cells from one part of the body to another	انتشار الخلايا السرطانية من مكان لآخر في الجسم
MI	Myocardial infarction, heart attack	موت جزء من عضلة القلب
MINIMAL	Slight	أقل قدر ممكن
MINIMIZE	Reduce	يقلل
MOBILITY	Ease of movement	القدرة على الانتقال
MONITOR	Check on; keep track of; watch carefully	يراقب
MORBIDITY	Undesired result or complication	مضاعفات / نتائج غير مرغوب فيها
MORTALITY	Death	موت
MOTILITY	The ability to move	القدرة على الحركة
MRI	Magnetic resonance imaging, body pictures created using magnetic rather than x-ray energy	تصوير بالرنين المغناطيسي
MUCOSA, MUCOUS MEMBRANE	Moist lining of digestive, respiratory, reproductive, and urinary tracts	المخاط / الغشاء المخاطي المبطن لأجهزة الجسم
MYOCARDIAL	Pertaining to the heart	ذو علاقة بعضلة القلب
MYOCARDIAL INFARCTION	Heart Attack	سكتة قلبية
NASOGASTRIC TUBE	Tube from the nose to the stomach	أنبوب بلاستيكي رفيع يتم إدخاله عن طريق الأنف إلى المعدة
NCI	National Cancer Institute	المعهد الوطني للسرطان
NECROSIS	Death of tissue	موت الخلايا
NEONATAL	Referring to the newborn period	ذو علاقة بالمواليد حديثي الولادة
NEOPLASIA	Tumor, may be benign or malignant	ورم حميد أو خبيث

NEUROBLASTOMA	A cancer or nerve tissue	أحد أنواع سرطانات الخلايا العصبية
NEUTROPENIA	Decrease in the main part of the white blood cells	نقص عدد كريات الدم البيضاء
NIH	National Institutes of Health	معهد الصحة الوطني
NON-INVASIVE	Not breaking, cutting or entering the skin	إجراء لا يتطلب وخز أو فتح في الجلد
NORML SUBJECT	Healthy volunteer	متطوع يتمتع بصحة جيدة
NOSOCOMIAL PNEUMONIA	Pneumonia acquired in the hospital	التهاب رئوي يحدث بعد دخول المستشفى
OCCLUSION	Closing, obstruction	انسداد / انغلاق
ONCOLOGY	The study of tumors or cancer	علم الأورام
OPHTHALMIC	Pertaining to the eye	ذو علاقة بالعين
OPTIMAL	Best, most favorable or desirable	الأفضل / الأنسب / الأمثل
ORAL ADMINISTRATION	By mouth	إعطاء عن طريق الفم
ORTHOPEDIC	Pertaining to the bones	عظمي / ذو علاقة بالعظام
OSTEOPETROSIS	Rare bone disorder characterized by dense bone	تحجر العظام
OSTEOPOROSIS	Softening of the bones	هشاشة العظام
OVERIE	Female sex gland	المبيض / العضو المولد للبويضات عند المرأة
PARENTERAL	Injection of a drug into a vein or into the skin	إعطاء عن طريق الحقن
PATENCY	Condition of being open	مفتوح
PATHOGENESIS	Causative mechanism in a disease	آلية حدوث المرض
PER OS (PO)	By mouth	عن طريق الفم
PERCUTANEOUS	Through the skin	من خلال الجلد
PERFORATION	A tear or a hole	شق / فتحة
PERINATAL	Referring to the pregnancy and newborn period	ذو علاقة بفترة الحمل / الولادة الحديثة
PHARMACOKINETICS	The study of the way the body absorbs, distributes, metabolizes, and gets rid of a drug	دراسة كيفية قيام الجسم بامتصاص وتوزيع الدواء ومن ثم التخلص منه

PHASE I PHASE II PHASE III	Initial study of a new drug in humans to determine the limits of its tolerance and its safety Second phase of study of a new drug intended to obtain initial information. Large scale trials to confirm and expand information on safety and usefulness of a new drug	المرحلة الأولية : دراسة مبدئية لدواء جديد لمعرفة مدى تحمّل الإنسان له **المرحلة الثانية : دراسة مبدئية لدواء جديد لمعرفة فوائده وأضراره** المرحلة الثالثة : دراسة واسعة لدواء جديد للتثبت من فوائده وسلامته
PHLEBITIS	Irritation or inflammation of the vein	التهاب الوريد
PLACEBO	A substance with no active medication	دمية علاجية / مادة على شكل دواء ولكن ليس لها تأثير دوائي
PLACEBO EFFECT	The perception of improvement when a placebo is given	التغيرات الناجمة عن أخذ الدمية العلاجية
PLATELETS	Small particles in the blood that will help with clotting	الصفائح الدموية التي تساعد على تخثر الدم
POST-OPERATIVE	After surgery	ذو علاقة بما يحدث عقب الجراحة
POTENTIATE	Increase or multiply the effect of a drug or toxin by administration of another drug or toxin at the same time	يزيد / يضاعف
POTENTIATOR	An agent that helps another agent work better	دواء مساعد / مضاعف لمفعول دواء آخر
PRE-OPERATIVE	Before surgery	قبل الجراحة
PRN	As needed	عند الحاجة
PROGNOSIS	Chances for recovery	النتيجة المتوقعة
PROGRESSES	Worsens, gets worse	يسوء / يتطور / يتزايد
PRONE	Lying on the stomach	عرضة لـ / قابل لـ
PROPHYLAXIS	A drug given to prevent disease or infection	دواء / إجراء للوقاية من مرض
PROSPECTIVE STUDY	Study following patients forward in time	بحث عن طريق تجميع ودراسة المعلومات التي ستحصل في المستقبل
PROTOCOL	Plan of study	خطة البحث
PROXIMAL	Closer to the center of the body, away from the end	قريب من المركز وبعيد عن الأطراف

PULMONARY	Pertaining to the lungs	ذو علاقة بالرئة
Q.D.	Everyday	يوميا
RADIATION THERAPY	x-ray or cobalt treatment	علاج بالأشعة
RANDOM	By chance	عشوائي
RANDOMIZATION	Chance selection, like flipping a coin	توزيع بشكل عشوائي
RBC	Red blood cell	كريات الدم الحمراء
RECOMBINANT	Formation of new combination of genes resulting from the manipulation of genes in the laboratory	تكوين موروثات جديدة
RECONSTITUTION	Putting back together the original parts or elements; For drugs: Preparation of a drug for administration by adding liquid to a dry, powdered drug	إعادة تركيب الأجزاء المفككة
REFRACTORY	Not responding to treatment	غير متجاوب مع العلاج
REGENERATION	Regrowth of a structure or of lost tissue	النمو الجديد للنسيج المفقود / المستأصل
RELAPSE	The return of a disease	عودة المرض
REMISSION	Disappearance of evidence of cancer or other disease	اختفاء مؤقت للمرض
RENAL	Pertaining to the kidneys	ذو علاقة بالكلى / كلوي
REPLICABLE	Possible to duplicate	قابل للتكاثر / النسخ
RESECT	Remove or cut out surgically	استئصال عن طريق الجراحة
RESOLVE	Go away	ينحل / يذوب
RETROSPECTIVE STUDY	Study looking back over past experience	بحث عن طريق تجميع ودراسة المعلومات الموجودة سابقا
SARCOMA	A type of cancer	أحد أنواع السرطان الخبيث
SEDATION	Giving medicine to make someone sleepy or less anxious	مهدئ
SEIZURES	Intense uncontrollable movements	صرع / نوبة تشنج عصبي
SEMINOMA	A type of testes cancer	أحد أنواع سرطان الخصية

SEQUELA	A condition following as a consequence of a disease	داء ثانوي تالي
SEQUENTIAL	In a row	متتابع / متوالي / متتالي
SERUM	Blood	مصل
SPINAL CATHETER	A tube placed near the spinal cord used for anesthesia	قسطرة توضع داخل العمود الفقري لإدخال المادة المخدرة
SPIROMETER	An instrument to measure the amount of air taken into and exhaled from the lungs	جهاز خاص لقياس كمية الهواء التي يمكن للمريض استنشاقها ومن ثم طرحها خارج الرئتين
STAGING	A determination of the extent of the disease	تحديد درجة تطور المرض
STENOSIS	Narrowing of a duct, tube or one of the valves in the heart	تضيق
STRATIFY	Arrange in groups for analysis of results (eg by age, sex, etc)	تقسيم عناصر البحث إلى مجموعات متجانسة
SUBCLAVIAN	Under the collarbone	تحت عظم الترقوة
SUBCUTANEOUS	Under the skin	تحت الجلد
SUPINE	Lying on the back	الاستلقاء على الظهر
SUPPORTIVE CARE	General medical aimed at symptoms, not intended to improve or cure underlying disease	عناية تهدف إلى تخفيف وطأة المرض وليس إلى شفائه
SYMPTOMATIC	Having symptoms	يعاني من أعراض المرض

SYSTOLIC	Top number in blood pressure, pressure during active contraction of the heart	الرقم العلوي لضغط الدم
TERATOGENIC	Capable of causing malformation fetuses	قادر على إحداث تشوهات خلقية عند الجنين
TERMINATE	Stop	يوقف
TESTES	Male sex glands	الخصيتين
THORACIC	Relating to the chest	ذو علاقة بالصدر
THROMBOCYTOPENIA	A condition in which there is an abnormally small amount of platelets in the blood	نقص عدد الصفيحات الدموية
THROMBOSIS	Clotting	تجلط / تخثر
TITRATION	A method for deciding on the strength of a solution	طريقة لقياس قوة المحلول

T-LYMPHOCYTES	Type of white blood cells	أحد أنواع خلايا الدم البيضاء المناعية
TOPICAL	Surface	موضعي / خارجي
TOPICAL ANESTHETIC	Applied to a certain area of the skin and reducing pain only in the area to which applied	مخدر موضعي
TOXICITY	An unwanted side effect resulting in injury to a tissue or organ	درجة السمية
TOXICOLOGY TEST	A test for illegal drugs	فحص درجة السمية
TRANSDERMAL	Through the skin	من خلال الجلد
TRANSIENT	Lasting or staying only a short time	زائل / عابر
TRAUMA	Injury, wound	إصابة / رض
TREADMILL	Walking machine used to determine heart function	جهاز مشي كهربائي ثابت يستخدم لتنشيط قدرة الجسم الحركية بهدف قياس جهد عضلة القلب
UPTAKE	Absorption and incorporation of a substance by living tissue, absorb and incorporate a substance, taking in of a substance by living tissues	امتصاص / أخذ المواد
VALVULOPLASTY	Plastic repair of valve, esp. of the heart	إصلاح الصمامات
VARICES	Enlarged veins	تضخم وتعرج في الأوردة الدموية / الدوالي
VASOSPASM	Narrowing of the vessels	تضيق / تشنج الأوعية
VECTOR	A carrier, usually an insect, that carries and transmits disease causing microorganisms	**ناقل / حامل**
VENIPUNCTURE	Blood drawing	دخول الوريد عن طريق وخز الجلد بالإبرة
VERTIGO	Dizziness	دوار / دوخة
WBC	White blood cell	خلايا الدم البيضاء

Appendix 5:

Checklist for Consent Documents for Investigators, REC Members, and Staff

All consent documents **must** include the following "**basic elements"** of informed consent and, when applicable **"additional elements**" of informed consent. This information **must** be written in a language that will be understandable to an individual with a sixth-grade education. The information **must** be incorporated into the specific sections of the consent document as indicated below:

A. Purpose of the Research:

- ☐ a statement that the study involves research.
  [You (you/your child) are being asked to participate in a research project]
- ☐ a statement of the purpose of the research.
  [The purpose of this research is _____.]
- ☐ a statement why the subject qualifies for participation in research.
  [You qualify for participation because _____ .]

B. Description of the Research:

- ☐ a description of the study and all of the procedures to be followed.
- ☐ the identification of any procedures, drugs or devices which are experimental, and a statement that indicates whether they are approved by the Saudi Ministry of Health, or similar regulatory bodies in USA, UK, Canada, or Sweden for the purpose(s) they will be used for in the proposed study.
- ☐ when applicable, the identification of any procedures that will be performed for clinically indicated, non-research-related reasons.
- ☐ an indication of the expected duration of the subject's participation.
- ☐ when applicable, an indication of the approximate number of subjects to be involved in the study.

C. Potential Risks and Discomforts:

- ☐ a description of all potential-risks or discomfort to the subjects, and a statement of the reversibility of any potential adverse events.
- ☐ when applicable, a statement that the particular treatment or procedure may involve risks to the subject (or to the embryo or foetus if the subject is, or may become, pregnant) which are currently unforeseeable.

D. Potential Benefits:

- ☐ a description of potential benefits to the subjects or to others.

E. Alternatives to Participation:

- ☐ a disclosure of alternative procedures or courses of treatment that might be beneficial.

F. Costs/Reimbursements:

- ☐ a statement whether or not compensation will be made for time and expenses:
- ☐ a statement as to whether there will be any costs to the subjects as a consequence of participation in the study. When applicable, clarify that costs for clinically indicated tests and procedures will be the responsibility of the patient.

G. Termination of Participation:

- ☐ a statement that the subject may discontinue participation at any time without penalty or loss of benefits to which the subject is otherwise entitled.
- ☐ when applicable, a statement of the consequences of a subject's decision to withdraw from the research, and procedures for orderly termination of participation by the subject
- ☐ when applicable, a statement of anticipated circumstances under which the subject's participation may be terminated by the investigator without regard to the subject's consent.

H. Compensation and/or Treatment in the Event of Injury:

- ☐ a statement whether compensation and/or any medical treatment will be available if injury occurs,
- ☐ and if so, what they consist of, or where further information may be obtained.
- ☐ a statement of whom to contact in the event of a research-related injury to the subject:

I. Voluntary Participation:

- ☐ a statement that participation is voluntary and refusal to participate will involve no penalty or loss of benefits to which the subject is otherwise entitled.
- ☐ when applicable, a statement that significant new findings developed during the course of the research, which may relate to the subject's willingness to continue participation, will be provided to the subject.

J. Confidentiality of Identify of Participant:

- ☐ a statement describing how and the extent to which confidentiality of records identifying the subject will be maintained.

K. Contact Person(s):

☐ a statement of whom to contact for answers to questions about the research (one or more of the investigators' team, including Hospital phone number and extension and pager) and the rights of the research subjects (Mr Mohamed Al Turki, Head Section of Assurance and Compliance, Office of Research Affairs, MBC 03, phone _____ ext _____ pager: _____.

Appendix 6

Checklist for Research Ethics Committee Members

1. Proposal and Proposal Summary:

1.1 Assessment of level of risk (check appropriate category):

- ☐ no risk
- ☐ minimal risk. [The probability and magnitude of harm or discomfort anticipated in the research are not greater, in and of themselves, than those ordinarily encountered in daily life or during the performance of routine physical or psychological examinations or tests.]
- ☐ greater than minimal risk but has potential direct benefit
- ☐ greater than minimal risk and no direct benefit, but has potential to yield generalisable knowledge about the subjects disorder or condition

1.1.1 if risk is greater than minimal, are the risks reasonable in relation to the potential benefits? ☐ Yes ☐ No

1.2 Have risks for all subjects been minimized via use of an appropriate research design?

1.2.1 is the subject population equitably distributed? ☐ Yes ☐ No
1.2.2 are inclusion and exclusion criteria appropriate? ☐ Yes ☐ No
1.2.3 does the study include vulnerable subjects? ☐ Yes ☐ No
1.2.4 indicate (circle) vulnerable subjects to be enrolled: ☐ Yes ☐ No
Minors, pregnant women, prisoners, fetuses, mentally disabled individuals, educationally or socially disadvantaged persons.

1.3 Are additional safeguards in place to protect vulnerable subjects?

1.3.1 are all subjects' rights and welfare protected? ☐ Yes ☐ No
1.3.2 if minors are to be enrolled in the study, is the assent category indicated? ☐ Yes ☐ No
1.3.3 will privacy and confidentiality of research records be adequately protected? ☐ Yes ☐ No
1.3.4 has safety been maximised for all subjects? ☐ Yes ☐ No

2. Consent Document:

2.1 are the eight basic elements of informed consent incorporated (see consent checklist)? ☐ Yes ☐ No
2.2 are the six additional elements of informed consent incorporated, when appropriate? ☐ Yes ☐ No
2.3 will the consent document be understandable to an individual with a sixth grade education? ☐ Yes ☐ No
2.4 will the consent document be understandable to an individual with a sixth grade education? ☐ Yes ☐ No
has the Principal Investigator (PI) requested a modification in the consent process (waiver of informed consent)? ☐ Yes ☐ No
does it fulfill all four requirements for a waiver? ☐ Yes ☐ No
2.5 has the (PI) requested a modification in the documentation of informed consent (waiver of signed consent)? ☐ Yes ☐ No
does it fulfill all four requirements for a waiver? ☐ Yes ☐ No

Appendix 7:

Request for Modification of Informed Consent (Waiver of Informed Consent)

Under specific circumstances, an investigator may request approval of a modification in the requirements for informed consent (waiver of informed consent). To request a waiver of informed consent, complete both Parts A and B.

Note: The Research Ethics Committee (REC) may approve a consent procedure which does not include,

or which alters, some or all of the elements of informed consent (ie, a waiver of informed consent) if four very specific criteria are met. Your request will be considered on a case-by-case basis at a convened meeting of the REC.

A. To determine if your request meets **ALL FOUR** of these criteria, you must answer the following questions:

1) does the research present more than minimal risk of harm to the subject? (Minimal risk is defined as the probability and magnitude of harm or discomfort not greater than those ordinarily encountered in daily life, or during the performance of routine physical or psychological tests). ☐ Yes ☐ No

2) will the waiver adversely affect the rights and welfare of the subjects? ☐ Yes ☐ No

3) can the research be practicably carried out without the waiver? ☐ Yes ☐ No

4) will the subjects be provided with additional pertinent information after participation, whenever appropriate? ☐ Yes ☐ No

B. Indicate below why the research could not practicably be carried out without the waiver.

_____ Name of Principal Investigator (print/type) _____ _____ Signature: Date:

Appendix 8:

Request for Modification of Documentation of Informed Consent (Waiver of signed consent)

Under specific circumstances, an investigator may request a waiver of the usual requirement for research subjects to sign a consent form to document that informed consent has been given (waiver of signed consent). To request a waiver of signed consent, complete the following questionnaire.

Note: The Research Ethics Committee (REC) may consider the possibility of approving a consent procedure which does not require a subject's signature when at least one of two specific criteria are met. Your request will be considered on a case-by-case basis at a convened meeting of the REC.

To determine if your request meets **EITHER** of these criteria, you must answer the following questions:

1) would the consent document be the **ONLY** identifiable link between the subject and the research, **AND** would there be potential harm to the subject if the confidentiality of the consent form was breached?

   ☐ Yes ☐ No

   Indicate below how a breach of confidentiality would be harmful to the subject:

2) a) does the research present more than minimal risk?
   (Minimal risk is defined as the probability and magnitude of harm or discomfort are not greater than those ordinarily encountered in daily life or during the performance of routine physical or psychological tests).

   ☐ Yes ☐ No

   b) **AND**, does the research involve any procedures for which written consent is normally required outside of the research context?

   ☐ Yes ☐ No

Appendix 9:

Certification of Assent of a Minor

Project Title:_____

_____

_____

RAC #: _____

I hereby certify that Dr _____ has fully explained to _____ the nature of the study and its potential risks and benefits in a language that the child could understand. I also certify that the child was given the opportunity to ask questions and was informed that he/she could refuse participation in the study. I further certify that the child freely gave verbal assent and has, without coercion, agreed to participate in this study. I also certify that I have no personal relationship to the child or the research study in which the child has been asked to participate.

_____
Name of Witness: (print/type)

_____ _____
Signature of Witness: Date:

Appendix 10.

Serious UNEXPECTED Adverse Event (SUAE) Report Form

Please complete this form for each unexpected, serious, adverse event and submit to the RAC within two working days of the occurrence.

RAC #_____ PI: _____

Date of serious unexpected adverse event: _____

Medical Record Number of Enrolled Research Subject: _____

Description of the event including patient/subject outcome:

_____

_____

_____

_____

Relationship of the event to the subject's participation in the research project:

Definitely related	☐	**Possibly Related**	☐
Probably related	☐	**Definitely not related**	☐

If the SUAE is related to participation in this study, please check one of the following:

☐ The possibility of this SUAE is listed in the consent form and therefore the consent form does not need to be modified.

☐ The consent form has been modified and two copies are enclosed – one with all revisions highlighted, and one clean copy to be stamped with REC approval.

☐ The SUAE was possibly related to the study, however the consent form does not need to be modified because:

_____

_____

_____

_____

Signature and I.D. # of P.I.:

_____

Extension: _____ MBC: _____

Date of Report: _____

A serious adverse event" (or adverse experience) or reaction is any untoward medical occurrence that results in death, is life-threatening or potentially life-threatening, requires inpatient hospitalization or prolongation of hospitalization, results in permanent or significant disability/incapacity, results in a congenital anomaly/birth defect, or the investigator considers significant.
"Unexpected" is any adverse event that is not listed in the consent form and/or the proposal and includes events that are unexpected in its occurrence, severity and/or frequency.

To be completed by ORA
SUAE no. for this project:_____
SUAE no. for this patient:_____

TO BE COMPLETED BY CHAIRMAN OF ☐REC ☐CRC

RECOMMENDATION:

☐ NO ACTION NEEDED UNTILL DISCUSSED BY THE FULL COMMITTEE AT THE NEXT SCHEDULED MEETING

☐ SUSPEND ENROLLMENT UNTIL DISCUSSED BY THE FULL COMMITTEE

☐ MORE INFORMATION REQUIRED (please specify)

_____

_____

☐ OTHER RECOMMENDATION:

_____

_____

Signature of Chairman: _____

Date: _____

Updated 08 January 2003