SAFETY MONITORING
IN HUMAN SUBJECTS RESEARCH

POLICY

The IRB will evaluate the research design in protocols to determine whether they include procedures which minimize risk to participants, there is potential benefit to participants, and there are procedures which monitor the safety of participants. The risks to participants should be reasonable in relation to the anticipated benefits.

APPLICABILITY

This policy applies to PIs who are responsible for ensuring that the research design of a research study protects the safety of participants and to the IRB whose responsibility is to approve research that protects the safety of participants and minimizes risk, and to evaluate whether the risk to participants is justified by the benefit.

EVALUATION OF RISK

Research protocols submitted to the IRB for review and approval must be designed to answer the question posed by the research in a manner that does not expose research participants to unnecessary risk. Every protocol which involves more than minimal risk should include a description of adequate provisions for monitoring the data to ensure the safety of participants. As described in the federal regulations “...a variety of types of monitoring may be anticipated depending on the nature, size, and complexity of the trial. In many cases, the principle investigator would be expected to perform the monitoring function.” This will include monitoring to determine:

- The progress of the trial, including periodic assessments of data quality and timeliness, participant recruitment, accrual and retention, participant risk versus benefit, and other factors that can affect study outcome. Monitoring should also consider factors external to the study when interpreting data, such as scientific or therapeutic developments that may have an impact on the safety of participants or the ethics of the study.

The IRB review of research will include an evaluation of whether the procedures used are consistent with sound research design, whether risks to participants are minimized, whether risks to participants are reasonable in relation to the benefits posed and the importance of the knowledge to be gained from the research. Risks to be evaluated include the risk of physical harm, social and economic risk such as the risk of release of confidential data, risk of...
psychological harm, or risk of criminal prosecution or other legal harm. Although protocols which are reviewed under an expedited procedure will also be reviewed according to these safety criteria, such protocols need not have safety monitoring plans as outlined in the following section.

Certificate of Confidentiality. Investigators whose studies involve more than minimal risk of breach of confidential information may obtain a Certificate of Confidentiality from the Department of Health and Human Services. The Certificate protects research participants from risk of disclosure of confidential information pursuant to subpoenas in civil or criminal actions.

CLINICAL RESEARCH

In clinical research, risks may be minimized by using procedures already being performed for diagnostic or treatment purposes when such procedures are consistent with sound research design. The PI must provide a plan for data safety monitoring in any situation in which participants might be at greater than minimal risk of harm, including when a drug or device is being tested for safety or effectiveness for marketing approval or in placebo controlled trials or when marketed drugs are being tested for another indication or compared for safety or effectiveness. The level of detail in the plan should be based on the degree of risk to research participants. Low risk studies, for example, may have simple plans. Multi-center trials generally have Data Safety Monitoring Boards (DSMB). Safety Monitoring plans, including plans for DSMBs, should:

a. Describe how risks are minimized and how they are reasonable in relation to anticipated benefits to participants;
b. Describe the data required to be reported and monitored;
c. Describe how the data is to be reported, including a plan to assure reporting of adverse events and unanticipated problems involving risk to participants or others;
d. List procedures for analysis and interpretation of data;
e. Describe the frequency of monitoring. (The IRB will evaluate the frequency of data review, whether after a specified length of time or after a specific number of participants are enrolled, based on the likelihood or magnitude of risks to participants.)
f. Describe how or by whom the data will be reviewed; (The IRB will evaluate whether the method is appropriate based on the size and complexity of the research and magnitude of risk to participants. Most large multicenter trials have DSMBs. Smaller trials could have monitoring committees, an independent medical monitor or other investigator, or if there is no other monitoring individual or committee, the IRB could request periodic data or safety monitoring.)
Human Research Protection
Program Policy

- Describe any proposed actions to be taken for specific events which may be anticipated, i.e., unexpected toxicities of drugs or greater than anticipated side effects;
- Describe the data and safety information which will be provided to the IRB and the frequency with which it will be reported;
- Specify whether serious adverse events will be promptly reported to and evaluated by a data safety and monitoring process.

SOCIAL AND BEHAVIORAL SCIENCES

In social and behavioral sciences research, risks may be minimized by using procedures already being performed for diagnostic or treatment purposes when such procedures are consistent with sound research design. The PI must describe provisions for minimizing risks in any situation in which participants might be at greater than minimal risk of harm. The PI must provide a plan for data safety monitoring in any situation in which participants might be at greater than minimal risk of harm. The level of detail in the plan should be based on the degree of risk to research participants. Low risk studies, for example, may have simple plans. Data safety monitoring plans, should:

- Describe how risks are minimized and how they are reasonable in relation to anticipated benefits to participants;
- Describe the data required to be reported and monitored;
- Describe how the data is to be reported, including a plan to assure reporting of adverse events and unanticipated problems involving risk to participants or others;
- List procedures for analysis and interpretation of data;
- Describe the frequency of monitoring. (The IRB will evaluate the frequency of data review, whether after a specified length of time or after a specific number of participants are enrolled, based on the likelihood or magnitude of risks to participants.)
- Describe how or by whom the data will be reviewed; (The IRB will evaluate whether the method is appropriate based on the size and complexity of the research and magnitude of risk to participants. Most large multicenter trials have DSMBs. Smaller trials could have monitoring committees, an independent monitor or other investigator, or if there is no other monitoring individual or committee, the IRB could request periodic data or safety monitoring.)
g. Describe any proposed actions to be taken for specific events which may be anticipated, i.e., greater than anticipated side effects;
h. Describe the data and safety information which will be provided to the IRB and the frequency with which it will be reported;
i. Specify whether serious adverse events will be promptly reported to and evaluated by a data safety and monitoring process.

Related UC Policies:

Institutional Policy II.03 *Treating Injuries of Participants in Human Subjects Research*
Institutional Policy II.02 *Reporting to the IRB: Unanticipated Problems Involving Risk to Participants or Others, Adverse Events, and Other Problems*
Institutional Policy II.06 *IRB Review of Reportable Events*
Institutional Policy III.02 *Categories of Review for Human Subjects Research*

Applicable regulations:

45 CFR 46.111(a)(1)(1)
21 CFR 56.111(a)

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<td>J. Gerlach</td>
<td>Removed IRB website link and non-functional links. Updated Related UC Policies section</td>
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