Data and Safety Monitoring

Procedure

A. When to Include Monitoring Provisions in your IRB Application

1. When submitting a study for IRB review and approval that is:
   - Greater than minimal risk research,
   - A Multi-Site study where OHSU is the coordinating center, or
   - A study where there is an NIH requirement for a Data and Safety Monitoring Plan (DSMP)
   The IRB application must include appropriate monitoring provisions, which includes designation of a monitoring entity.

B. Required Monitoring Provisions

1. The type of data or events that are to be reviewed under the monitoring provisions.
2. The monitoring entity(ies) responsible for monitoring the data collected, including data related to unanticipated problems and adverse events, (e.g., the investigators, the research sponsor, a coordinating or statistical center, an independent medical monitor, a DSMB/DMC, and/or some other entity).
3. The role(s) of the monitoring entities.
4. The time frames for reporting adverse events and unanticipated problems to the monitoring entity.
5. Schedule of monitoring reviews by each monitoring entity.
6. Definition of specific triggers or stopping rules that will dictate when some action is required.
7. Procedures for communicating to the IRB(s), and as applicable, the study sponsor, the investigator(s), and other appropriate officials, the outcome of the reviews by the monitoring entity. Refer to the OHSU Policy on Reporting Unanticipated Problems and Adverse Events for reporting timelines to the IRB.
8. The monitoring provisions should be tailored to the expected risks of the research; the type of subject population being studied; and the nature, size (in terms of projected subject enrollment and the number of institutions enrolling subjects), and complexity of the research protocol.

C. Determining the type of Monitoring Entity

1. Investigator Monitor
   a. This type of monitor is appropriate when the study involves:
      - a small number of subjects; and
      - the study is conducted only at one site; and
      - the study involves low risk to subjects.
b. In such cases, ongoing monitoring of events by the investigator, and prompt reporting of unanticipated problems to the IRB and, when applicable, the FDA, the NIH, or others, may be adequate.

2. Independent Monitor
   a. This type of monitor is often appropriate to monitor data and safety for clinical trials that do not anticipate serious irreversible events and that involve:
      • an intervention (for example, to relieve symptoms) that poses only moderate risk to subjects; and
      • short term treatments where effects are evaluated over periods of a few days to a few months; and
      • a smaller number of subjects where the study is completed quickly and the risk can be adequately assessed through simple comparisons.
   b. In these studies, valuable secondary objectives such as characterization of the effect (i.e., magnitude, duration, time to response), assessment of the effect in population subsets, comparison of several doses or comparison of the new product to an active control can be ethically pursued even when the conclusion regarding the primary efficacy outcome is clear. Early termination for effectiveness is rarely appropriate in such studies. First, the study may be essentially completed by the time any interim analysis to evaluate effectiveness could be undertaken. Second, the effectiveness of an intervention, for example, to relieve symptoms, would not generally be so compelling as to override the need to collect the full amount of safety data, or to collect other information of interest and importance that characterizes the effect.

3. Data Safety Monitoring Board (DSMB)/Data Monitoring Committee (DMC)
   a. In general, a DSMB/DMC is the most appropriate way to monitor data and safety for studies that involve:
      • Large numbers of subjects where risk may better be assessed through statistical comparisons of treatment groups;
      • Blinded study treatment groups where the validity and integrity of the study may be adversely affected by having an individual or group associated with the design and conduct of the study break the blind;
      • Multiple clinical sites where there is a need for investigators to submit reports of adverse events to a central reporting
entity, such as a coordinating center or statistical center, responsible for preparing timely summary reports of adverse events for distribution among the clinical sites, and to the IRBs;

- High risk interventions where death or severe disability is a major risk of research participation; and/or
- Controlled trials with mortality or major morbidity as a primary or secondary endpoint where increased morbidity or mortality may better be assessed through statistical comparisons of morbidity or mortality among treatment groups.

The establishment of DSMBs is required by the NIH for multi-site clinical trials or those involving high risk interventions. This would include, in most cases, phase III clinical trials but may also be required for multi-site or high risk phase 1 and 2 trials.

D. Submitting your Monitoring Provisions for Approval

1. Once you have determined whether your proposed research requires monitoring provisions and the correct monitoring entity, the monitoring provisions must be submitted to the IRB for approval.

2. If your protocol contains all of the requirements for monitoring provisions and/or there is an NIH or other DSMP in place, complete the appropriate sections in the IRB application. Upload a submission memo that indicates where the DSMP can be found in existing documents. If using the Oregon Cancer Institute (CI) download a copy of their approved DSMP from the CI website and upload with your submission.

3. If your protocol does not contain all of the requirements for monitoring provisions and there is not a DSMP in place, then complete the OHSU DSMP Template Form. LINK


1. The IRB will review the monitoring provisions to ensure that they will adequately aid in the protection of human subjects by detecting adverse events and unanticipated problems.

2. The IRB review will consider the design of the monitoring provisions and the appropriateness of the monitoring entity.

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