Data and Safety Monitoring Guidelines

I. Purpose

The purpose of this document is to provide guidance on developing an appropriate Data and Safety Monitoring Plan ("DSMP") for human research conducted under the auspices of the Einstein Institutional Review Board ("IRB").

II. Scope

These Guidelines apply to human research conducted under the auspices of the Einstein IRB.

III. Definitions

Data and Safety Monitoring Board ("DSMB"): A formal committee, independent of the trial organizers and investigators, that is specifically established to conduct interim monitoring, oversight, and analysis of study information and data to assure the continuing safety of research participants, efficacy of the study intervention, appropriateness of the study, continued relevance of the study question, and integrity of the accumulating data throughout the life of the research projects.

Data and Safety Monitoring Plan ("DSMP"): A plan established to assure that each research study has a system in place for appropriate oversight and monitoring of the conduct and progress of the study that ensures:

- Important information that may affect the safety or welfare of participants comes to light and is acted upon as quickly as possible, and
- The validity and integrity of the data.

IV. Guidelines

All studies involving greater than minimal risk must include a description of the Data and Safety Monitoring Plan ("DSMP"). For research involving no greater than minimal risk, oversight by the PI constitutes a sufficient plan, and the DSMP does not need to be described in the IRB application.

A DSMP should include the following:

- A description of who will perform the monitoring reviews
- A description of how the monitoring will be documented
- How often monitoring will be performed
- The components of the study to be monitored
- Procedures for reporting the outcome of reviews by the monitoring entity to the IRB, the study sponsor, and/or other appropriate entities

- A plan for conducting and reporting interim analysis, as appropriate
- Clearly defined stopping rules, as appropriate
- Clearly defined rules for withdrawing participants from study interventions, as appropriate

The DSMP should be commensurate with the risks involved with the research. The frequency, intensity, and mechanism of monitoring depend on the level of risk; the size, type, and complexity of the study; and type of subject population. Monitoring may be conducted in various ways or by various individuals or groups, depending on the size and scope of the research effort. These exist on a continuum from monitoring by the principal investigator, to monitoring by an independent safety monitor, to the establishment of an independent Data and Safety Monitoring Board ("DSMB").

A DSMB may be required when:

- The study endpoint is such that a highly favorable or unfavorable result, or even a finding of futility, at an interim analysis might ethically require termination of the study before its planned completion;
- There are a priori reasons for a particular safety concern, as, for example, if the procedure for administering the treatment is particularly invasive;
- There is prior information suggesting the possibility of serious toxicity with the study treatment;
- The study is being performed in a potentially fragile population such as children, pregnant women or the very elderly, or other vulnerable populations, such as those who are terminally ill or of diminished mental capacity;
- The study is being performed in a population at elevated risk of death or other serious outcomes, even when the study objective addresses a lesser endpoint;
- The study is large, of long duration, and multi-center.

For example, a large, multi-site phase III trial will require a DSMB.

For many single-site phase I and phase II trials, however, close monitoring by the study investigator may be an adequate and appropriate format for monitoring. More intense monitoring, or monitoring by independent individuals, may be appropriate if the study is blinded or employs particularly high-risk interventions or vulnerable populations.

V. Effective Date

Effective as of: June 1, 2020

VI. Document Management and Responsibilities

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