Data Safety Monitoring		
VCU/VCU Health CLINICAL RESEARCH STANDARD OPERATING PROCEDURES		
SOP No.: CR-RE-310.3	Status: Final	Version Date: 02/11/2025 Effective Date: 03/14/2025

1. PURPOSE

The purpose of this Standard Operating Procedure is to review the requirements of data and safety monitoring for FDA-regulated, NIH-funded, and/or greater-than-minimal-risk studies. Studies that are externally sponsored and managed by an outside entity (e.g. pharmaceutical company or other academic research institution) would be responsible for data safety monitoring and this SOP would not apply to these studies.

2. REQUIREMENTS

All research protocols proposing to involve human subjects that may involve greater than minimal risk must contain a plan for monitoring data.

The Institutional Review Board or ethics committee of record requires that the principal investigator provide thorough information regarding a DSMP and data and safety monitoring board (DSMB), as applicable. This requirement is in accordance with 45 CFR 46.111.

Further, it is the sponsor's (or sponsor-investigator's) responsibility (ICH E6 Section 3.9.7) to establish, when necessary, a Data Safety Monitoring Board/Committee (DSMB/C) to assess the progress of a clinical trial and to recommend to the sponsor whether to continue, modify, or stop a trial. For an investigator-initiated study, the leading/principal investigator has the overall responsibility for establishing a DSMB, when required.

3. DEFINITIONS

Data Safety Monitoring Plan- A data and safety monitoring plan (DSMP) is a quality assurance plan that ensures the safety of participants and the validity of data in a clinical trial. The purpose of the plan ensures that the study is conducted appropriately and that participants are safe. It also ensures that the data is valid and the study is terminated appropriately if necessary. The DSMP is developed by the sponsor or sponsor-investigator of the study.

Independent Data Monitoring Committee (IDMC)- An independent data monitoring committee (e.g., data safety monitoring board) that may be established by the sponsor to

assess at intervals the progress of a clinical trial, the safety data and the critical efficacy endpoints, and to recommend to the sponsor whether to continue, modify or stop a trial.

4. PROCESS

A. In developing a DSMP, the study team must determine the level of data safety monitoring that is appropriate for the study. The following may be used as a guideline and/or direct consultation with the IRB may be appropriate:
   - Minimal risk research involving human subjects does not require a data safety monitoring plan.
   - Clinical research/trials involving lower risk may only require a DSMP involving a scheduled review by the PI.
   - Clinical research/trials involving moderate risk may require engaging a knowledgeable expert (who is not otherwise associated with the study) to review data at appropriate intervals to assure that the risks to participants are and remain reasonable. Such an expert may be un-blinded if that is appropriate for the safety of the participants.
   - Clinical research/trials involving moderate to high risk should have an established DSMB/C with appropriate expertise to review all data related to study participants at regular intervals appropriate to the level of risk and study design. Generally, such a board will establish stopping rules (termination limits) for the study. Data Safety Monitoring Board members may be un-blinded if that is appropriate for the safety of participants.

B. When developing a DSMB/C, the following should be included:
   - Composition: In general, a DSMB/C is composed of experienced clinical researchers (physicians, clinicians, statisticians, and research personnel) not otherwise associated with the study and otherwise having no potential conflict of interest.
   - Charter: Each DSMB/C should have a charter that contains a roster of those serving on the board, meeting schedule/format and well-defined standard operating procedures with how data will be reviewed and meetings will be conducted.
   - Procedure Notes: The DSMB/C reviews trial-specific data to ensure the safety and integrity of the study including, but not limited to, enrollment data, interim data, adverse event data, data quality, study operations and/or protocol adherence. When appropriate the DSMB can recommend study closure.

5. REFERENCES

A. Guidance for Clinical Trial Sponsors – Establishment and Operation of Clinical Trial Data Monitoring Committees

B. Good Clinical Practice
- ICH Harmonised Guideline Guideline For Good Clinical Practice E6(R3)
  - Section 2: Investigator
    - Section 2. 4 - communication with IRB/IEC
    - Section 2.5 - Compliance with the protocol
  - Section 3: Sponsor
    - Section 3.1 - Trial design

C. VCU HRPP Policies and Guidance; HRPP Toolkit
- HRP-103-Investigator Manual
- HRP-503-Template Protocol
- HRP-503a-Template SBS Protocol
- HRP-308-Worksheet-Pre-Review

D. VCU Policy, Procedures, and Resources
- VCU Policy on Conflict of Interest in Research
- VCU Conflicts of Interests Website
- Massey Cancer Center Data and Safety Monitoring
- VCU/VCUHealth Clinical Research Standard Operating Procedures
  - CR-AD-120 - Clinical Research Management System
  - CR-RE-300 - Adverse Event and Problem Management and Reporting

Review/Revision History CR-RE-310

Version No.	Effective Date	Description
CR-RE-310.3	03/01/2025	● Links updated ● Edited formatting ● Additional information on charter and procedural notes ● Additional information about the purpose ● Revised Data Safety Monitoring Plan definition ● Revised Independent Data Monitoring Committee definition ● Updated IRB policies to align with the HRPP Policies and Guidance; HRPP Toolkit ● Updated to ICH E6(R3)
CR-RE-310.2a	07-01-2020	● Links updated

CR-RE-310.2	07-01-2020	● Biennial review performed ● Minor formatting edits ● Reference links added and updated
CR-ST-310.1	11-10-2017	● Original