Ochsner Guidance Document: When is a DSMB Needed?

A DSMB is indicated, from a practical perspective in the following circumstances:

• If the trial is intended to provide definitive information about effectiveness and/or safety of a medical intervention

• If there are prior data to suggest that the intervention being studied has the potential to induce potentially unacceptable toxicity

• If the trial is evaluating mortality or another major endpoint, such that inferiority of one treatment arm has safety as well as effectiveness implications

• If it would ethically be important for the trial to stop early if the primary question addressed has been definitively answered, even if secondary questions or complete safety information were not yet fully addressed

It is generally expected that a DSMB will be utilized in the following situations:

• All Phase III studies generally require a DSMB, with the exception of low-risk studies. For this discussion, "low-risk" refers to trials where subjects are expected to experience only minor side effects, and interim analyses are not crucial for the protection of the subjects. The involvement of a DSMB may still be requested for low-risk studies if the studies are exceptionally large, long term, and/or involve vulnerable subjects

• Phase II clinical trials which are multicenter and randomized require a DSMB, with the exception of low-risk studies

• Phase II studies which are "high risk" require a DSMB. For this discussion, "high-risk" refers to trials of interventions associated with substantial side effects to subjects (e.g., side effects that could result in serious morbidity or death, or are irreversible), trials of diseases associated with high mortality or morbidity, and trials of highly experimental therapies (e.g., gene therapy). As a general guideline, DSMBs are needed for clinical trials of diseases with high mortality or morbidity, for clinical trials involving high risks, and for large, multicenter clinical trials

• For some studies involving particularly vulnerable study participants (e.g., children or persons with impaired ability to consent), it may be beneficially to utilize a DSMB as an additional measure of subject protection

A DSMB is NOT generally expected in the following situations:

• Single-center open-label Phase I and II clinical trials generally do not need a DSMB since the local investigator will have access to all data. In these types of trials, the investigator could appoint an independent medical monitor to evaluate adverse events and make recommendations for continuing or stopping a trial
• A multicenter, high-risk Phase I clinical trial should not require a DSMB if there are very clear rules for stopping the trial. For example, a DSMB is generally not required for a classic open-label dose escalation trial with clear and objective criteria for halting the dose escalation when unacceptable side effects are observed. A DSMB is likely to be requested if the DSMP lacks objective criteria for continuing or halting the trial.

• A DSMB may not be feasible for clinical trials that are expected to accrue too quickly to allow for a DSMB to be constituted and complete data and safety monitoring.