Protecting the Rights and Safety of Clinical Study Participants

In accordance with International Conference on Harmonisation Good Clinical Practice Guidelines, all interventional clinical studies should be monitored to ensure that the well-being of the study participants is protected at all times. Safety monitoring may be conducted in a variety of ways, including the pharmaceutical company sponsoring the study, the investigators who are trained to collect and report adverse event data and to provide follow-up information on request, Ethics Committees (ECs), known as Institutional Review Boards (IRBs) in the United States, and, for some studies, Data Monitoring Committees (DMCs).

ECs/IRBs are responsible for approving an interventional clinical study based on an evaluation of, among other things, whether the study’s design and conduct minimize the risks to subjects and whether the anticipated benefits reasonably outweigh the potential risks. An EC/IRB evaluation typically entails review of the study protocol and associated procedures, relevant background information, informed consent documentation, and proposed plans for informing participants about the benefits and risks of the study. An EC/IRB may request information about the approach to study monitoring, including the statistical basis for early termination, if relevant, and what steps the sponsor is taking to minimize the risks to patients while assuring data quality.

DMCs (also known as Data and Safety Monitoring Boards [DSMBs]) are independent committees set up specifically to monitor data generated during certain types of studies. They generally have access to much more data than does an EC/IRB during the study, including interim efficacy and safety analyses, on the basis of which they can make recommendations with regard to continuation of the study. DMCs are comprised of experts in the relevant fields of medicine, science, and statistics as well as lay representatives, who can offer an unbiased assessment of the study conduct and progress. The DMC advises the study sponsor regarding the continuing safety of study subjects and those yet to be recruited to the study, as well as the continuing validity and scientific merit of the study.

Patient safety is monitored during all clinical studies, but not all studies require monitoring by a formal external committee. DMCs have generally been established for large, randomized multisite studies that evaluate treatments intended to prolong life or reduce risk of a major adverse health outcome such as a cardiovascular event or recurrence of cancer. DMCs are generally recommended for any controlled study of any size that will compare rates of mortality or major morbidity and in other circumstances where safety concerns may be unusually high, such as when:

- 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 elderly.
- The study is being performed in a population at elevated risk of death or other serious outcomes.