

## A Review on Clinical Trial

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**Abstract:** *Clinical trials are essential research studies conducted on human volunteers to evaluate the safety and effectiveness of new treatments. These trials are the fastest and most reliable method for discovering effective medical solutions and improving human health. The process involves multiple phases, beginning with Phase I, where the pharmacokinetics, safety, and general effects of a drug are studied in healthy volunteers. If successful, Phase II testing follows, focusing on the drug's safety and efficacy in selected patients. In Phase III, the drug undergoes testing on a larger group of patients to further assess its effects. Upon successful completion of Phase III, the drug is approved for market release. Phase IV studies continue to monitor the drug's long-term safety and effectiveness, with input from healthcare providers regarding adverse drug reactions (ADR). Clinical trials, alongside observational studies, are crucial for advancing medical knowledge and ensuring that treatments are both safe and effective for broader populations.*

**Keywords:** Clinical trial, Phases, Safety, Efficiency, Clinical studies, ICH Guideline