**Phase I Clinical Trials**

* Phase I clinical trials should usually be carried out by investigators trained in clinical pharmacology and having the necessary facilities to closely observe and monitor the subjects.
* These may be carried out at one or two centers.
* At least 2 subjects should be used on each dose.
* The document required for Phase I Clinical Trials are,
  1. Systemic Toxicity studies
     + Single dose toxicity studies
     + Dose Ranging Studies
     + Repeat-dose systemic toxicity studies

1. Male fertility study
2. In-vitro gene toxicity tests
3. Relevant local toxicity studies with proposed route of clinical application (duration depending on proposed length of clinical exposure)
4. Allergenicity / Hypersensitivity tests (when there is a cause for concern or for parenteral drugs, including dermal application)
5. Photo-allergy or dermal photo-toxicity test (if the drug or a metabolite is related to an agent causing photosensitivity or the nature of action suggests such a potential)

**Phase II Clinical Trials**

* Phase II clinical trials should normally be carried out on 10-12 patients at each dose level.
* These studies should usually be carried out at 3-4 centers by clinicians specialized on the concerned therapeutic areas and having adequate facilities to perform the necessary investigations for efficacy and safety.
* The document required for Phase II Clinical Trials are,
  1. Summary of all the non-clinical safety data (listed above) already submitted while obtaining the permissions for Phase I trial.
  2. In case of an application for directly starting a Phase II trial – complete details of the nonclinical safety data needed for obtaining the permission for Phase I trial, as per the list provided above must be submitted.
  3. Repeat-dose systemic toxicity studies of appropriate duration to support the duration of proposed human exposure
  4. In-vivo genotoxicity tests.
  5. Segment II reproductive/developmental toxicity study (if female patients of child bearing age are going to be involved)

**Phase III Clinical Trials**

* If the drug is already approved/marketed in other countries, phase III data should generally be obtained on at least 100 patients distributed over 3-4 centres
* at least 500 patients distributed over 10-15 centres.
* The document required for Phase II Clinical Trials are,
  1. For Phase III Clinical Trials Provide a summary of all the non-clinical safety data (listed above) already submitted while obtaining the permissions for Phase I and II trials, with appropriate references.
  2. In case of an application for directly initiating a Phase III trial – complete details of the non-clinical safety data needed for obtaining the permissions for Phase I and II trials, as per the list provided above must be provided.
  3. Repeat-dose systemic toxicity studies of appropriate duration to support the duration of proposed human exposure
  4. Reproductive/developmental toxicity studies
     + Segment I (if female patients of child bearing age are going to be involved), and
     + Segment III (for drugs to be given to pregnant or nursing mothers or where there are indications of possible adverse effects on foetal development)
  5. Carcinogenicity studies (when there is a cause for concern or when the drug is to be used for more than 6 months).







