

Clinical research and pharmacist.

Dr. Basavaraj M Dinnimath*

Department of Pharmaceutical Chemistry, KAHER'S College of Pharmacy, Hubballi, Karnataka, India

Accepted on March 28, 2018

The term clinical research encompasses the entire journey of a drug candidate's development including drug discovery in the R&D lab to its introduction to the consumer market and much beyond. Once the promising candidate or the molecule is identified in the lab, it is subjected to pre-clinical studies where different aspects of the molecule (including its safety/ toxicity and its efficacy) at its early stage are studied.

Clinical research is usually conducted at academic medical hospitals and other affiliated research study centers. These centers shall provide a larger pool of medical participants who are essential for clinical research. These academic medical centers should have their internal Institutional Review Boards (IRB) that oversees the ethical issues in a clinical/medical research.

The clinical research system as a whole involves a network of study centers, pharmaceutical companies and academic research institutions supported by group of technologies used for managing the data and operational factors of clinical research. These human studies are conducted in four phases (Phase I to Phase IV) on research subjects with their consent and IRB approval to participate in the clinical trials. Before proceeding to clinical trials on a new drug pharmaceutical companies should possess an extensive pre-clinical study results. Clinical research is different from a clinical study (medical treatment) which is observational study whereas clinical research is an experimental study around a research question the outcome of which is still unknown and the patient may or may not benefit directly by participating in it [1-3].

Different types of clinical research are carried out depending on the researcher's objectives of study. Some different kinds of clinical research are given below;

Treatment Research

An interventional study (such as medication, psychotherapy, new devices or new approaches to surgery or radiation therapy).

Prevention Research

Possible ways to prevent disorders from developing (study medicines, vitamins, vaccines, minerals, or lifestyle changes).

Diagnostic Research

Identification (diagnostic approach) of a particular disorder or condition.

Screening Research

Detecting certain Diseases or health conditions.

Quality of Life Research

Improvisation of the quality of life for individuals suffering from a chronic illness.

Genetic Studies

Prediction of disorders by identifying and understanding the relationship between genes and illnesses (predicting the role of genes towards developing a disorder).

Epidemiological Studies

Identifying the patterns, causes and control of diseases/disorders in groups of people [4].

Role of Pharmacist in Clinical Research

Today, pharmacists can play a vital role as members of research team by contributing much beyond the traditional dispensing pharmacist. His cognitive inputs based on the medication expertise can be a valuable asset for team as well as principal investigator/s of the study. The vast array of services that clinical pharmacist/s can offer in a trial can be implemented through a research pharmacy and pharmacist. He can also serve as co-investigator in a trial as well as a study medication expert. He can also be a valuable asset in getting grants from funding agencies. This expanded role of pharmacists in clinical research studies today which has opened newer opportunities for pharmacists interested in a clinical research [5-7].

References

1. http://www.nlm.nih.gov/bsd/uniform_requirements.html
2. <http://www.fda.gov/ScienceResearch/SpecialTopics/RunningClinicalTrials/ucm114928.htm>
3. <http://www.fda.gov/oc/gcp/regulations.html>
4. <https://www.fda.gov/ForPatients/ClinicalTrials/Types/default.htm>
5. Gamboa ML, Brunettob AT, Dos Santos ME, et al. The pharmacists' role in clinical research. *Farm Hosp.* 2011;35:341-2.
6. Swiatek D, Daly C. Not just dispensing: The unique role of pharmacists in an outpatient research pharmacy. *Pharmacy Times.* 2016.
7. Malson G. Opportunities in clinical trials pharmacy. *J Pharm.* 2015.

*Correspondence to:

Dr. Basavaraj M Dinnimath
Department of Pharmaceutical Chemistry
KAHER'S College of Pharmacy
Hubballi
Karnataka
India
Tel: +96320 45496
E-mail: basavaraj_dm@yahoo.co.in