

Clinical Research Terms and Definitions

A

Adverse Drug Reaction (ADR)

An unintended reaction to a drug taken at doses normally used in man for prophylaxis, diagnosis, or therapy of disease, or for the modification of physiological function. In clinical trials, an ADR would include any injuries by overdosing, abuse/dependence, and unintended interactions with other medicinal products.

Adverse Event (AE)

A negative experience encountered by an individual during the course of a clinical trial, that is associated with the drug. An AE can include previously undetected symptoms, or the exacerbation of a pre-existing condition. When an AE has been determined to be related to the investigational product, it is considered an Adverse Drug Reaction.

Adverse Event Reports

Investigator reports of all serious and adverse events, injury and deaths given to the sponsor, the IRB and the FDA.

Adverse Reaction

An unwanted effect caused by the administration of drugs. Onset may be sudden or develop over time.

Advocacy and Support Groups

Organizations and groups that actively support participants and their families with valuable resources, including self-empowerment and survival tools.

Approved Drugs

In the U.S., the Food and Drug Administration (FDA) must approve a substance as a drug before it can be marketed. The approval process involves several steps including pre-clinical laboratory and animal studies, clinical trials for safety and efficacy, filing of a New Drug Application by the manufacturer of the drug, FDA review of the application, and FDA approval/rejection of application.

ARM

Any of the treatment groups in a randomized trial. Most randomized trials have two “arms,” but some have three “arms,” or even more.

Assent

A child’s affirmative agreement to participate in a clinical investigation. Mere failure to object may not, absent affirmative agreement, be construed as assent.

Assurance

A renewable permit granted by the federal government to an institution or research center to conduct clinical trials.

Audit

A systematic and independent examination of trial-related activities and documents to determine whether the evaluated trial-related activities were conducted, and the data were recorded, analyzed, and accurately reported according to the protocol, sponsor’s standard operating procedures (SOPs), good clinical practice (GCP), and the applicable regulatory and ethical requirement(s).

B

Baseline

1. Information gathered at the beginning of a study from which variations found in the study are measured. 2. A known value or quantity with which an unknown is compared when measured or assessed. 3. The initial time point in a clinical trial, just before a participant starts to receive the

experimental treatment which is being tested. At this reference point, measurable values such as CD4 count are recorded. Safety and efficacy of a drug are often determined by monitoring changes from the baseline values.

Belmont Report

A report created by the former United States Department of Health, Education, and Welfare (which was renamed to Health and Human Services) entitled "Ethical Principles and Guidelines for the Protection of Human Subjects of Research," authored by Dan Harms, and is an important historical document in the field of medical ethics. The report was created on April 18, 1979 and gets its name from the Belmont Conference Center where the document was drafted. The report continues as an essential reference for institutional review boards (IRBs) that review HHS-conducted or -supported human subjects research proposals involving human subjects, in order to ensure that the research meets the ethical foundations of the regulations.

Bias

When a point of view prevents impartial judgment on issues relating to the subject of that point of view. In clinical studies, bias is controlled by blinding and randomization.

Biologic

A virus, therapeutic serum, toxin, antitoxin, vaccine, blood, blood component or derivative, allergenic product, or analogous product applicable to the prevention, treatment or cure of diseases or injuries of man.

Biotechnology

Any technique that uses living organisms, or substances from organisms, biological systems, or processes to make or modify a product or process, to change plants or animals, or to develop micro-organisms for specific uses.

Blinding

The process through which one or more parties to a clinical trial are unaware of the treatment assignments. In a single-blinded study, usually the subjects are unaware of the treatment assignments. In a double-blinded study, both the subjects and the investigators are unaware of the treatment assignments. Also, in a double-blinded study, the monitors and sometimes the data analysts are unaware. "Blinded" studies are conducted to prevent the unintentional biases that can affect subject data when treatment assignments are known.

Brand Name Drug

A brand name drug is a drug marketed under a proprietary, trademark-protected name.

C

Cardiology/Vascular Diseases

Diseases having to do with the structure and function of the heart and blood vessels. Studies in these areas include: heart failure, coronary artery disease, high cholesterol, blood clots, circulation disorders, and others.

Case Report Form (CRF)

A record of pertinent information collected on each subject during a clinical trial, as outlined in the study protocol.

Certified Research Coordinator (CCRC)

CRC with greater than two years experience and with certification earned by passing required program and exam.

Clinical Development

Term used to describe the cross-functional and cross-departmental activities that are required to bring an investigational product from Phase I through Phase IV.

Clinical Investigation

A systematic study designed to evaluate a product (drug, device, or biologic) using human subjects, in the treatment, prevention, or diagnosis of a disease or condition, as determined by the product's

benefits relative to its risks. Clinical investigations can only be conducted with the approval of the Food and Drug Administration (FDA).

Clinical Investigator

A medical researcher in charge of carrying out a clinical trial's protocol.

Clinical Research

Study of drug, biologic or device in human subjects with the intent to discover potential beneficial effects and/or determine its safety and efficacy. Also called clinical study and clinical investigation. Note that in this manual, this term is used in its narrow sense as used by the FDA. Thus, it does not encompass all the research that is carried out in the clinical setting (e.g., health services research).

Clinical Research Associate (CRA)

Person employed by the study sponsor or CRO to monitor a clinical study at all participating sites. See also, monitor.

Clinical Research Coordinator (CRC)

Site administer for the clinical study. Duties are delegated by the investigator. Also called research, study or healthcare coordinator, and data manager, research nurse or protocol nurse.

Clinical Study Materials

Study supplies (i.e., study test article, laboratory supplies, case report forms) provided by the study sponsor to the investigator.

Clinical Trial

Any investigation in human subjects intended to determine the clinical pharmacological, pharmacokinetic, and/or other pharmacodynamic effects of an investigational agent, and/or to identify any adverse reactions to an investigational agent to assess the agent's safety and efficacy.

Common Rule

1991 agreement to cover all federal-sponsored research by a common set of regulations.

Community-Based Clinical Trial (CBCT)

A clinical trial conducted primarily through primary-care physicians rather than academic research facilities.

Comparator (Product)

An investigational or marketed product (i.e., active control), or placebo, used as a reference in a clinical trial.

Compassionate Use

A method of providing experimental therapeutics prior to final FDA approval for use in humans. This procedure is used with very sick individuals who have no other treatment options. Often, case-by-case approval must be obtained from the FDA for "compassionate use" of a drug or therapy.

Completed Study Site

Term used when a clinical trial has been completed at the study site, in accordance with the protocol, and the study close-out visit has been performed and fully documented.

Compliance (In Relation to Clinical Trials)

Adherence to all the trial-related requirements, good clinical practice (GCP) and ethical requirements, and the applicable regulatory requirements.

Confidentiality Agreement

A letter sent to the investigator/institution to document their agreement to treat all information regarding the investigational product and the clinical trial in a confidential manner.

Consent Form

A document explaining all relevant study information to assist the study volunteer in understanding the expectations and requirements of participation in a clinical trial. This document is presented to and signed by the study subject.

Contract Research Organization (CRO)

A person or an organization (commercial, academic or other) contracted by the sponsor to perform one or more of a sponsor's study-related duties and functions.

Contraindication

A specific circumstance when the use of certain treatments could be harmful.

Control Group

A comparison group of study subjects who are not treated with the investigational agent. The subjects in this group may receive no therapy, a different therapy, or a placebo.

D

Data Management

The process of handling the data gathered during a clinical trial. May also refer to the department responsible for managing data entry and database generation and/or maintenance.

Deception

Intentionally misleading or withholding information about the nature of an experiment.

Declaration of Helsinki

A series of guidelines adopted by the 18th World Medical Assembly in Helsinki, Finland in 1964. The Declaration addresses ethical issues for physicians conducting biomedical research involving human subjects. Recommendations include the procedures required to ensure subject safety in clinical trials, including informed consent and Ethics Committee reviews.

Demographic Data

Refers to the characteristics of study participants, including sex, age, family medical history, and other characteristics relevant to the study in which they are enrolled.

Dental/Maxillofacial Surgery

Surgery relating to the teeth, jaw, face and its structures. Studies in these areas include: acute and chronic dental pain, oral cavity cancer, oral facial pain, oral medicine, and saliva and salivary gland dysfunction.

Dermatology/Plastic Surgery

Fields concerned with skin disorders and the reconstruction or replacement of deformed, damaged, or lost parts of the body. Also concerns cosmetic surgery. Studies in these areas include: acne, congenital skin diseases, genital herpes, genital warts, liposuction, psoriasis, skin wounds, athlete's foot, venous leg ulcers, and others.

Device

An instrument, apparatus, implement, machine, contrivance, implant, in vitro reagent, or other similar or related article, including any component, part or accessory, which is intended for use in the diagnosis, cure, treatment or prevention of disease. A device does not achieve its intended purpose through chemical action in the body and is not dependent upon being metabolized to achieve its purpose.

Diagnostic Trials

Refers to trials that are conducted to find better tests or procedures for diagnosing a particular disease or condition. Diagnostic trials usually include people who have signs or symptoms of the disease or condition being studied.

Disease

Disorders (e.g., anxiety disorders, seizure disorders), conditions (e.g., obesity, menopause), syndromes, specific illnesses, and other medical problems that are an acquired morbid change in a tissue, organ, or organism. Synonyms are illness and sickness.

Documentation

All records, in any form (including, but not limited to, written, electronic, magnetic, and optical records; and scans, x-rays, and electrocardiograms) that describe or record the methods, conduct, and/or results of a trial, the factors affecting a trial, and the actions taken.

Dosage Regimen

(1) The number of doses per given time period (usually days), (2) the time that elapses between doses (e.g., dose to be given every six hours) or the time that the doses are to be given (e.g., dose to be given at 8 a.m., noon, and 4 p.m. each day) or (3) the quantity of a medicine (e.g., number of tablets, capsules, etc.) that are given at each specific time of dosing.

Dose-Ranging Study

A clinical trial in which two or more doses of an agent (such as a drug) are tested against each other to determine which dose works best and is least harmful.

Double-Blind

The design of a study in which neither the investigator or the subject knows which medication (or placebo) the subject is receiving.

Drug

As defined by the Food, Drug and Cosmetic Act, drugs are “articles (other than food) intended for the use in the diagnosis, cure, mitigation, treatment, or prevention of disease in man or other animals, or to affect the structure or any function of the body of man or other animals.”

Drug or Device Accountability Records (DAR)

Required documentation for material accountability, quantity used and left over, and date of disposal.

Drug Product

A finished dosage form (e.g. tablet, capsule, or solution) that contains the active drug ingredient usually combined with inactive ingredients.

Drug Safety and Monitoring Board (DSMB)

An independent committee, composed of community representatives and clinical research experts, that reviews data while a clinical trial is in progress to ensure that participants are not exposed to undue risk. A DSMB may recommend that a trial be stopped if there are safety concerns or if the trial objectives have been achieved.

Drug-Drug Interaction

A modification of the effect of a drug when administered with another drug. The effect may be an increase or a decrease in the action of either substance, or it may be an adverse effect that is not normally associated with either drug.

E

Effective Dose

A product's ability to produce beneficial effects on the duration or course of a disease. Efficacy is measured by evaluating the clinical and statistical results of clinical tests.

Efficacy

A product's ability to produce beneficial effects on the duration or course of a disease. Efficacy is measured by evaluating the clinical and statistical results of clinical tests.

Endocrinology

Field relating to hormone-manufacturing glands such as the pituitary, thyroid, parathyroid, and adrenal glands, as well as the ovary and testis, the placenta, and the pancreas. Studies in this area include: diabetes and diabetes-related disorders, diet and nutrition, hormone-replacement therapy, menopause, obesity, and others.

Endpoint

Overall outcome that the protocol is designed to evaluate. Common endpoints are severe toxicity, disease progression, or death.

Enrolling

The act of signing up participants into a study. Generally this process involves evaluating a participant with respect to the eligibility criteria of the study and going through the informed consent process.

Epidemiology

The branch of medical science that deals with the study of incidence and distribution and control of a disease in a population.

Ethics Committee

An independent group of both medical and non-medical professionals who are responsible for verifying the integrity of a study and ensuring the safety, integrity, and human rights of the study participants.

Exclusion Criteria

Refers to the characteristics that would prevent a subject from participating in a clinical trial, as outlined in the study protocol.

Expanded Access

Refers to any of the FDA procedures, such as compassionate use, parallel track, and treatment IND that distribute experimental drugs to participants who are failing on currently available treatments for their condition and also are unable to participate in ongoing clinical trials.

Experimental Drug

A drug that is not FDA licensed for use in humans, or as a treatment for a particular condition.

F

Family Educational Rights and Privacy Act (FERPA)

Covers rights of parents of school children regarding reviewing, amending and disclosing educational records.

FDA Form 1572

A list of commitments and requirements by the FDA for each investigator performing drug/biologics studies. Also referred to as a statement of the investigator.

Food and Drug Administration (FDA)

Within the Department of Health and Human Services. Enforces Food, Drug and Cosmetics Act and related federal public health laws. Grants IND, IDE, PMA and NDA approvals.

Food Drug and Cosmetic Act (FD & C Act)

States only drugs, biologics and devices proven safe and effective can be marketed.

Formulation

The mixture of chemicals and/or biological substances and excipients used to prepare dosage forms.

G

Gastroenterology

The study of the gastrointestinal organs and diseases relating to them. This includes any part of the digestive tract from mouth to anus, liver, biliary tract, and the pancreas. Studies in this area include: constipation, Crohn's disease, diarrhea, gall bladder disease, heartburn, hemorrhoids, Irritable Bowel Syndrome (IBS), ulcers, liver disease, stomach cancer, and others.

Generic Drug

A medicinal product with the same active ingredient, but not necessarily the same inactive ingredients as a brand-name drug. A generic drug may only be marketed after the original drug's patent has expired.

Good Clinical Practice (GCP)

International ethical and scientific quality standard for designing, conducting, monitoring, recording, auditing, analyzing and reporting studies. Insures that the data reported is credible and accurate, and that subject's rights and confidentiality are protected.

H

Healthy Patient Studies

Most Healthy Patient Studies are Phase I studies which are primarily concerned with assessing a drug's safety. This initial phase of testing in humans is done in a small number of healthy volunteers who are usually paid for participating in the study. Other Healthy Patient Studies investigate the effects of environmental conditions on healthy volunteers. For instance, the studies may investigate the effects of exercise, vitamins, or diet on the human body.

Hematology

Field regarding blood, blood-forming tissues, and the diseases associated with them. Studies in this area include: anemia, blood clots, bone marrow transplant, leukemia, platelet disorders, red-cell disorders, T-cell lymphoma, vitamin deficiencies, white-cell disorders, and others.

Human Subject

A patient or healthy individual participating in a research study. A living individual about whom an investigator obtains private information or data through intervention or interaction.

I

Immunology/Infectious Diseases

Diseases affecting the defense mechanisms of the body. Studies in this area include: AIDS, auto-immune diseases, bacterial infections, chronic fatigue syndrome, common cold, genital herpes, genital warts, hepatitis, HIV infections, immuno-suppressives, influenza, lyme disease, meningitis, parasite and protozoan infections, strep throat, vaccines, viral infections, and others.

In Vitro Testing

Non-clinical testing conducted in an artificial environment such as a test tube or culture medium.

In Vivo Testing

Testing conducted in living animal and human systems.

Incident Rate

The rate of occurrence of new cases of a disease, adverse reaction, or other event in a given population at risk (e.g., the incidence of disease X is Y subjects per year per 100,000 population).

Inclusion Criteria

A list of criteria that must be met by all study subjects.

Informed Consent

The voluntary verification of a patient's willingness to participate in a clinical trial, along with the documentation thereof. This verification is requested only after complete, objective information has been given about the trial, including an explanation of the study's objectives, potential benefits, risks and inconveniences, alternative therapies available, and of the subject's rights and responsibilities in accordance with the current revision of the Declaration of Helsinki.

Institution

Location of research. Retains ultimate responsibility for human subject regulation compliance.

Institutional Review Board (IRB)

An independent group of professionals designated to review and approve the clinical protocol, informed consent forms, study advertisements, and patient brochures, to ensure that the study is safe and effective for human participation. It is also the IRB's responsibility to ensure that the study adheres to the FDA's regulations.

Intent to Treat

Analysis of clinical trial results that includes all data from participants in the groups to which they were randomized even if they never received the treatment.

International Conference on Harmonisation (ICH)

A joint regulatory/industry project to improve, through harmonisation, the efficiency of the process for developing and registering new medicinal products in Europe, Japan, and the United States, in order to make these products available to patients with a minimum of delay.

Investigational Device Exemption (IDE)

Exemption from FD & C Act to study investigational medical devices.

Investigational New Drug Application (IND)

The petition through which a drug sponsor requests the FDA to allow human testing of its drug product.

Investigator

A medical professional, usually a physician but may also be a nurse, pharmacist or other health care professional, under whose direction an investigational drug is administered or dispensed. A principal investigator is responsible for the overall conduct of the clinical trial at his/her site.

Investigator's Brochure

Relevant clinical and non-clinical data compiled on the investigational drug, biologic or device being studied.

L

Legally Acceptable Representative

An individual or juridical or other body authorized under applicable law to consent, on behalf of a prospective subject, to the subject's participation in the clinical trial.

Longitudinal Study

A study conducted over a long period of time.

M

MedWatch Program

An FDA program designed to monitor adverse events (AE) from drugs marketed in the U.S. Through the MedWatch program, health professionals may report AEs voluntarily to the FDA. Drug manufacturers are required to report all AEs brought to their attention.

Monitor

Person employed by the sponsor or CRO who reviews study records to determine that a study is being conducted in accordance with the protocol. A monitor's duties may include, but are not limited to, helping to plan and initiate a study, and assessing the conduct of studies. Monitors work with the clinical research coordinator to check all data and documentation from the study. See also CRA.

Monitoring

Reviewing a clinical study, ensuring conduct, proper records and reports are performed as stated in the clinical protocol, standard operating procedures, GCP and by regulatory requirements.

Multiple Project Assurance

Permit given to institution for multiple federally funded research grants for a specified period of time. States institution retains responsibility for all research involving humans and that the institution must have an established IRB.

Musculoskeletal

Field having to do with the muscles and the bones of the body. Studies in this area include: aging, bone density, bone fractures, chronic back pain, hip replacement, osteoarthritis, osteoporosis, rheumatoid arthritis, spinal cord injuries, and others.

N

National Institutes of Health (NIH)

Agency within DHHS that provides funding for research, conducts studies and funds multi-site national studies.

National Research Act

Act created by the National Commission for Protection of Human Subjects of Biomedical and Behavioral Research in 1974 and mandated review of studies by institutional review boards and subject protection by informed consent.

Natural History Study

Study of the natural development of something (such as an organism or a disease) over a period of time.

Nephrology/Urology

The studies and the treatment of diseases of the kidney and the urinary tract. Studies in these areas include: bladder cancer, impotence, kidney disease, kidney stones, mastectomy, nocturia, renal cell carcinoma, urinary tract infections, and others.

Neurology

Field concerning the nervous system, especially the brain, peripheral nerves, and spinal cord. Studies in this field include: Alzheimer's Disease, Attention Deficit Hyperactivity Disorder (ADHD), Carpal Tunnel Syndrome, Huntington's Disease, dementia, memory loss, migraine headaches, multiple sclerosis, muscular dystrophy, Parkinson's Disease, strokes, Tourette's Syndrome, and others.

New Drug Application (NDA)

The compilation of all non-clinical, clinical, pharmacological, pharmacokinetic and stability information required about a drug by the FDA in order to approve the drug for marketing in the U.S.

Nuremberg Code

As a result of the medical experimentation conducted by Nazis during World War II, the U.S. Military Tribunal in Nuremberg in 1947 set forth a code of medical ethics for researchers conducting clinical trials. The code is designed to protect the safety and integrity of study participants.

O

Obstetrics/Gynecology

Research pertaining to the care of women during pregnancy and childbirth, as well as to the study of the women's reproductive system in general. Studies in these areas include: contraception, hormone-replacement therapy, menopause, menstrual disorders, ovarian cysts, PMS, pregnancy/labor/delivery, yeast infections, and others.

Off Label

The unauthorized use of a drug for a purpose other than that approved of by the FDA.

Office for Human Research Protection (OHRP)

A federal government agency that issues Assurances and oversees compliance of regulatory guidelines by research institutions.

Oncology

The medical, surgical, and radiation treatment of tumors (cancerous, especially). Studies in this area include most types of cancer and treatment thereof.

Open-Label Study

A study in which all parties, (patient, physician and study coordinator) are informed of the drug and dose being administered. In an open-label study, none of the participants are given placebos. These are usually conducted with Phase I & II studies.

Ophthalmology

Field concerning the eye and eye diseases. Studies in this area include: cataracts, eye infections, glaucoma, macular degeneration, near-sighted corrective surgery, and others.

Orphan Drug

A designation of the FDA to indicate a therapy developed to treat a rare disease (one which afflicts a U.S. population of less than 200,000 people). Because there are few financial incentives for drug companies to develop therapies for diseases that afflict so few people, the U.S. government offers

additional incentives to drug companies (i.e. tax advantages and extended marketing exclusivity) that develop these drugs.

Otolaryngology

Also known as ENT (ears, nose, and throat), this is the study of diseases involving the ears and the larynx (organ that helps produce vocal sounds and serves as an air passageway, located in the neck/throat). Studies in this area include: allergy, ear infections, pneumonia, rhinitis, sinus infections, strep throat, and others.

Over-the-Counter (OTC)

Drugs available for purchase without a physician's prescription.

P

Patient

Individual seeking medical care.

Pediatrics/Neonatology

The medical treatment and study of children and infants, respectively. Studies in these areas include: anorexia, asthma, Attention Deficit Hyperactivity Disorder (ADHD), birth defects, cancers in children, child depression, growth deficiencies, juvenile diabetes, obesity, strep throat, vaccines, and others.

Peer Review

Review of a clinical trial by experts chosen by the study sponsor. These experts review the trials for scientific merit, participant safety, and ethical considerations.

Pharmacodynamic (PD) Study

A study of a pharmacological or clinical effect of the medicine in individuals to describe the relation of the effect to dose or drug concentration. A pharmacodynamic effect can be a potentially adverse effect (anticholinergic effect with a tricyclic), a measure of activity thought related to clinical benefit (various measures of beta-blockade, effect on ECG intervals, inhibition of ACE or of angiotensin I or II response), a short term desired effect, often a surrogate endpoint (blood pressure, cholesterol), or the ultimate intended clinical benefit (effects on pain, depression, sudden death).

Pharmacoconomics

The study of cost-benefit ratios of drugs with other therapies or with similar drugs.

Pharmacoconomic studies compare various treatment options in terms of their cost, both financial and quality-of-life. Also referred to as "outcomes research".

Pharmacokinetics

The processes (in a living organism) of absorption, distribution, metabolism, and excretion of a drug or vaccine.

Pharmacology/Toxicology

The science of drugs and poisonous materials (respectively) and their effects on the body. Studies in these areas include: diet and nutrition; overdoses; and vitamin deficiencies.

Phase I Study

The first of four phases of clinical trials, Phase I studies are designed to establish the effects of a new drug in humans. These studies are usually conducted on small populations of healthy humans to specifically determine a drug's toxicity, absorption, distribution and metabolism.

Phase II Study

After the successful completion of phase I trials, a drug is then tested for safety and efficacy in a slightly larger population of individuals who are afflicted with the disease or condition for which the drug was developed.

Phase IIa Study

Pilot clinical trials to evaluate efficacy (and safety) in selected populations of subjects with the disease or condition to be treated, diagnosed, or prevented. Objectives may focus on dose-

response, type of subject, frequency of dosing, or numerous other characteristics of safety and efficacy.

Phase IIb Study

Well-controlled trials to evaluate efficacy (and safety) in subjects with the disease or condition to be treated, diagnosed, or prevented. These clinical trials usually represent the most rigorous demonstration of a medicine's efficacy.

Phase III Study

The third and last pre-approval round of testing of a drug is conducted on large populations of afflicted patients. Phase III studies usually test the new drug in comparison with the standard therapy currently being used for the disease in question. The results of these trials usually provide the information that is included in the package insert and labeling.

Phase IIIa

Trials conducted after efficacy of the medicine is demonstrated, but prior to regulatory submission of a New Drug/product Application (NDA) or other dossier. These clinical trials are conducted in subjects' populations for which the medicine is eventually intended. Phase IIIa clinical trials generate additional data on both safety and efficacy in relatively large numbers of subjects in both controlled and uncontrolled trials. Clinical trials are also conducted in special groups of subjects (e.g. renal failure subjects), or under special conditions dictated by the nature of the medicine and disease. These trials often provide much of the information needed for the package insert and labeling of the medicine.

Phase IIIb Study

Clinical trials conducted after regulatory submission of an NDA or other dossier, but prior to the medicine's approval and launch. These trials may supplement earlier trials, complete earlier trials, or may be directed towards new types of trials (e.g., quality of life, marketing) or phase IV evaluations. This is the period between submission and approval of a regulatory dossier for marketing authorization.

Phase IV Study

After a drug has been approved by the FDA, phase IV studies are conducted to compare the drug to a competitor, explore additional patient populations, or to further study any adverse events.

Pilot Study

A pilot trial is used to obtain information, and work out the logistics and management, deemed necessary for further clinical trials. Although pilot trials are often unblind and use open-label medicines, they may also be single or double blind and may include tight control on all appropriate variables. The term "pilot" refers to the purpose of the trial (2).

Pivotal Study

Usually a phase III study which presents the data that the FDA uses to decide whether or not to approve a drug. A pivotal study will generally be well-controlled, randomized, of adequate size, and whenever possible, double-blind.

Placebo

An inactive substance designed to resemble the drug being tested. It is used as a control to rule out any psychological effects testing may present. Most well-designed studies include a control group which is unwittingly taking a placebo.

Placebo Effect

A physical or emotional change, occurring after a substance is taken or administered, that is not the result of any special property of the substance. The change may be beneficial, reflecting the expectations of the participant and, often, the expectations of the person giving the substance.

Pre-Clinical Testing

Before a drug may be tested on humans, pre-clinical studies must be conducted either *in vitro* but usually *in vivo* on animals to determine that the drug is safe.

Prevention Trials

Refers to trials to find better ways to prevent disease in people who have never had the disease or to prevent a disease from returning. These approaches may include medicines, vaccines, vitamins, minerals, or lifestyle changes.

Protection of Pupil Rights Amendment (PPRA)

Department of Education regulation that states that surveys, questionnaires and instructional materials for school children must be inspected by parents/guardians.

Protocol

A detailed plan that sets forth the objectives, study design, and methodology for a clinical trial. A study protocol must be approved by an IRB before investigational drugs may be administered to humans.

Protocol Amendment

Changes or clarifications made in writing to the original protocol.

Psychiatry/Psychology

Fields relating to mental disorders and their treatment and prevention. Also, the study of human behavior. Studies in these areas include: addictions, anxiety, dementia, depression, bipolar disorders, manic disorders, mood disorders, post-traumatic stress disorders, schizophrenia, social phobia, substance abuse, and others.

Pulmonary/Respiratory Diseases

Diseases having to do with the lungs and/or breathing. Studies in these areas include: Acute Respiratory Distress Syndrome (ARDS), allergy, asthma, bronchitis, cystic fibrosis, emphysema, lung disease, pneumonia, sinus infections, smoking cessation, and others.

Q

Quality Assurance

Systems and procedures designed to ensure that a study is being performed in compliance with Good Clinical Practice (GCP) guidelines and that the data being generated is accurate.

Quality of Life Trials (or Supportive Care Trials)

Refers to trials that explore ways to improve comfort and quality of life for individuals with a chronic illness.

R

Randomization

Study participants are usually assigned to groups in such a way that each participant has an equal chance of being assigned to each treatment (or control) group. Since randomization ensures that no specific criteria are used to assign any patients to a particular group, all the groups will be equally comparable.

Recruitment

Act of enrolling subjects with the proper inclusion criteria.

Recruitment Period

Time allowed to recruit all subjects for a study.

Regulatory Affairs

In clinical trials, the department or function that is responsible for ensuring compliance with government regulations and interacts with the regulatory agencies. Each drug sponsor has a regulatory affairs department that manages the entire drug approval process.

Research

Systematic investigation designed to develop or contribute to generalizable knowledge. Includes Clinical Research.

Research Team

Investigator, subinvestigator and clinical research coordinator involved with study.

Rheumatology

The field relating to joints, tendons, muscles, ligaments, and associated structures. Studies in this area include: arthritis, osteoarthritis, psoriasis, rheumatic fever, rheumatoid arthritis, and others.

Risk

A measure of (1) the probability of occurrence of harm to human health or (2) the severity of harm that may occur. Such a measure includes the judgment of the acceptability of risk. Assessment of safety involves judgment, and there are numerous perspectives (e.g., subjects, physicians, company, regulatory authorities) used for judging it.

Risk-Benefit Ratio

Risk to individual subject vs. potential benefits. Also called Risk-Benefit Analysis.

S

Safety Reports

FDA report required by investigator for any serious and unexpected adverse experience.

Screening Trials

Refers to trials which test the best way to detect certain diseases or health conditions.

Serious Adverse Event (SAE)

Any adverse event (AE) that is fatal, life-threatening, permanently disabling, or which results in hospitalization, initial or prolonged.

Side Effects

Any undesired actions or effects of a drug or treatment. Negative or adverse effects may include headache, nausea, hair loss, skin irritation, or other physical problems. Experimental drugs must be evaluated for both immediate and long-term side effects.

Single Project Assurance

Permit given to institution for single grant in compliance with government standards. See "assurance."

Single-Blind Study

A study in which one party, either the investigator or participant, is unaware of what medication the participant is taking; also called single-masked study.

Site Management Organization (SMO)

An organization that provides clinical trial related services to a contract research organization (CRO), a pharmaceutical company, a biotechnology company, a medical device company or a clinical site. The site is usually a hospital or a similar health care institution that has adequate infrastructure and staff to meet the requirements of the clinical trial protocol.

Source Data

All information contained in original records and certified copies of results, observations or other facets required for the reconstruction and evaluation of the study that is contained in source documents.

Source Documentation

Location where information is first recorded including original documents, data and records.

Sponsor

Individual, company, institution or organization taking responsibility for initiation, management and financing of study.

Standard Operating Procedure (SOP)

Official, detailed, written instructions for the management of clinical trials. SOPs ensure that all the functions and activities of a clinical trial are carried out in a consistent and efficient manner.

Standard Treatment

The currently accepted treatment or intervention considered to be effective in the treatment of a specific disease or condition.

Standards of Care

Treatment regimen or medical management based on state of the art participant care.

Statistical Significance

The probability that an event or difference occurred by chance alone. In clinical trials, the level of statistical significance depends on the number of participants studied and the observations made, as well as the magnitude of differences observed.

Study Endpoint

A primary or secondary outcome used to judge the effectiveness of a treatment.

Study Type

The primary investigative techniques used in an observational protocol; types are Purpose, Duration, Selection, and Timing.

Sub-investigator

Helps design and conduct investigation at a study site.

Subject Identification Code

A unique identifier assigned by the investigator to each trial subject to protect the subject's identity and used in lieu of the subject's name when the investigator reports adverse events and/or other trial-related data.

Subject/Study Subject

Participant in a study. See "Human Subject."

Telephone Report

Notification via telephone to the FDA of unexpected fatal or life threatening advent associated with a clinical study.

T

Therapeutic Window

This term is applied to the difference between the minimum and maximum doses that may be given subjects to obtain an adequate clinical response and avoid intolerable toxic effects. The greater the value calculated for the therapeutic window, the greater a medicine's margin of safety. Synonyms are therapeutic ratio and therapeutic index.

Toxicity

An adverse effect produced by a drug that is detrimental to the participant's health. The level of toxicity associated with a drug will vary depending on the condition which the drug is used to treat.

Trauma/Emergency Medicine

The medical specialties involving physical wounds or injuries. Studies in these areas include: athletic injuries, burns, Chronic Obstructive Pulmonary Disease (COPD), traumatic brain injuries, and others.

Treatment IND

A method through which the FDA allows seriously ill patients with no acceptable therapeutic alternative to access promising investigational drugs still in clinical development. The drug must show "sufficient evidence of safety and effectiveness." In recent decades many AIDs patients have been able to access unapproved therapies through this program.

Treatment Trials

Refers to trials which test new treatments, new combinations of drugs, or new approaches to surgery or radiation therapy.

U

Unexpected Adverse Drug Reaction

A reaction that is not consistent in nature or severity with study application.

W

Well-being

Subject's physical and mental soundness.

Withdrawal Application

Investigator/sponsor letter to FDA requesting application withdrawal when no additional work is envisioned.