

## ***BRIDGE Patient to Investigator Training Module 3***

### ***Types of Research Key Terms and Definitions***

**Animal Research:** Animal Research is the use of non-human animals in experiments that seek to control the variables that affect the behavior or biological system under study.

**Case-Control Study:** A type of observational study that looks backwards to determine what might be associated with a certain result. Compares individuals with the result (or disease) to those without—looking for reasons, behaviors, situations that caused the one group to have the result or disease. May use interviews or a review of medical records to identify cases and controls.

**Cohort Study:** A type of observational study which studies and compares a cohort (group of people who share a defining characteristic) over a period of time.

**Comparative Effectiveness Trial:** The direct comparison of two or more existing health care interventions to determine which interventions work best for which patients and which interventions pose the greatest benefits and harms. The core question of a Comparative Effectiveness Trial is which treatment works best, for whom, and under what circumstances.

**Cross-Sectional Study:** A type of observational study that uses a survey/interview to gather facts (and sometimes opinions) from a selected group of people for a specific topic and usually for a limited time period.

**Epidemiology Study:** A type of observational study which uses new observations or existing information, such as information in medical records, to better define a condition and who is likely to have that condition in a population of people.

**Experimental Research:** Studies that require something new or include some type of action or change. Researchers initiate the change, observe the effects of the change, make comparisons and draw conclusions from the data generated.

**Human Participants Research:** Studies of living individuals about whom an investigator (whether professional or student) conducting research obtains data through intervention or interaction with the individuals or obtains identifiable private information.

**Mixed Results Study:** A study using both qualitative and quantitative methods of measurement.

**Molecular Research:** Molecular Research studies the composition, structure and interactions of cellular molecules – such as nucleic acids and proteins – that carry out the biological processes essential for the cell's functions and maintenance.

**Observational Research:** Studies that use existing information or new information by watching without interfering. Researchers observe, measure, record and analyze the data generated.

**Pragmatic Clinical Trial (PCT):** Pragmatic clinical trials are usually considered large simple trials, or large-scale studies that compare two or more alternatives for prevention, diagnosis, treatment, or management of a disease or symptom; improving healthcare system-level approaches to managing care; or eliminating health or health care disparities.

**Qualitative Study:** A study in which the information collected is often ideas, opinions, beliefs, attitudes or concerns. Focus groups, interviews or oral histories are used to gather information which is recorded in words and not translated into numbers. Analysis of the information tries to summarize the ideas into areas of thought often called domains.

**Quantitative Study:** A quantitative study is the most common type of medical research. It uses tests, questionnaires or surveys to collect information or data which is recorded as numbers. Analysis of the data uses the numbers to give results.

**Randomized Controlled/Clinical Trial (RCT):** A type of experimental study in which participants are randomly allocated to receive one of two (or more) diagnostic, preventive, therapeutic, or palliative interventions and are then followed to determine the effects of the intervention.