

Observational studies. The most commonly used designs in clinical research
[Estudios observacionales. Los diseños utilizados con mayor frecuencia en
investigación clínica]

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Observational studies (OS) are clinical research designs whose goal is "the observation and description of events without any intervention in the natural course of these. Measurements can be made over the time (longitudinal study), either retrospectively or prospectively, or in a unique way (cross-sectional study). Moreover, the EO can be descriptive, when the aim is to "observe and describe" the behaviour of one or more variables in a group of subjects over a period of time and analytical, which allows comparative analysis of groups of subjects without a process of allocation to a given subject, but it happens according to current clinical practice, and therefore the researcher is a mere observer and descriptor of what is happening. OS have their strengths and weaknesses. They can be used to report results in the areas of treatment and prevention, aetiology and harm, diagnosis, prognosis and natural history, scenarios in which OS give evidence of different levels, depending on the particular design and the area in question. As group of designs, OS represent the 80% of the publications of biomedical journals, independent of the database indexing and the eventual impact factor of each journal. The concept of OS includes reporting and case series (prospective or retrospective), cross-sectional studies, population studies, and ecological and correlational studies; diagnostic tests studies, case-control studies and cohort studies (prospective or retrospective).

Case-control studies

Cohort studies

Cross-sectional studies

Epidemiologic studies

Follow-up studies

Longitudinal studies