

Part I: Interventional Studies

Section I: Overall Trial Strategy

Noninferiority Trials

Does-Finding Trials

Pragmatic Trials

Cluster Randomized Trials

Section II: Clinical Trial Design

Samples Size Calculation for a Hypothesis Test

Minimal Clinically Importance Difference

Section III: Enrollment, Allocation of Treatment, Ethics

Randomization Strategies

Equipoise in Research

Section IV: Measurement of Outcome

Time-to-Event Analysis

Utility and Composite Outcomes

Missing Data

Section V: Analysis and Interpretation of Results

The Intention-to-Treat Principle

Analyzing Repeated Measurements/Mixed Models

Logistic Regression

Logistic Regression Diagnostics

Variable Selection in Regression

Multiple Comparison Procedures

Gatekeeping Strategies

Multiple Imputation

Interpretation of Clinical Trials that Stopped Early

Bayesian Modeling

Section VI: Application of Results

Decision Curve Analysis

Methods for Evaluating Changes in Health Care

Meta-Analysis Possible: Psychiatry VP Ioannidis

Part II: Observational Studies

Section I: Study Design

Case-Control Studies

Matched Case-Control Studies

Section II: Assessment of Risk Factors and Exposures

Mendelian Randomization

Confounding in Observational Studies

Confounding by Indication

Section III: Analysis and Interpretation of Results

The Propensity Score

Covariate Adjustment Possible

Instrumental Variable Matching

Genetic Association Studies

Section IV: Application of Results

Evaluation Discrimination of Risk Prediction Models