



Statistics Checklist

Life Sciences

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Definition of the endpoints/outcome

- Was the study question clearly formulated (hypotheses) and the associated endpoints defined? Is the data suitable to answer the study question, or is it possible to collect suitable data prospectively?

Study design

- Has the study design been determined, i.e. is it a cross-sectional study, a case-control study, a cohort study, or a randomized controlled study (RCT) etc.?

Existing or planned number of cases

- Was an adequate sample size/power calculation conducted, based on the information already available?

Missing and implausible values

- Has the handling of missing and implausible values been taken into account? Have methodical strategies been established to deal with or replace these values?

Distributions of the variables

- Has the distribution of the variables been checked for the available data?

Significance level and multiple testing

- If multiple tests been carried out, have methods for adjusting the significance level been taken into account?

Selection of statistical tests and models

- Were the statistical tests and models selected and implemented to match the hypotheses?

Adjustment for confounders

- Were possible confounders or covariates statistically taken into account?

Interpretation of the results

- Has the correct interpretation of the results been made depending on the statistical methods?

Presentation of the results in text and table form

- Has the ideal form been selected from the various display options in text and table form?

Presentation of the results as figures

- Were the results presented adequately graphically?

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