**CHAMP: CHecklist for statistical Assessment of Medical Papers**

|  |  |  |  |
| --- | --- | --- | --- |
| ***Design and conduct*** |  |  |  |
| 1. Clear description of the goal of research, study objective(s), study design, and study population
 | Yes | Unclear | No |
| 1. Clear description of outcomes, exposures/treatments and covariates, and their measurement methods
 | Yes | Unclear | No |
| 1. Validity of study design
 | Yes | Unclear | No |
| 1. Clear statement and justification of sample size
 | Yes | Unclear | No |
| 1. Clear declaration of design violations and acceptability of the design violations
 | Yes | Unclear | No |
| 1. Consistency between the paper and its previously published protocol
 | Yes | Unclear | No |
| ***Data analysis*** |  |  |  |
| 1. Correct and complete description of statistical methods
 | Yes | Unclear | No |
| 1. Valid statistical methods used and assumptions outlined
 | Yes | Unclear | No |
| 1. Appropriate assessment of treatment effect or interaction between treatment and another covariate
 | Yes | Unclear | No |
| 1. Correct use of correlation and associational statistical testing
 | Yes | Unclear | No |
| 1. Appropriate handling of continuous predictors
 | Yes | Unclear | No |
| 1. Confidence intervals do not include impossible values
 | Yes | Unclear | No |
| 1. Appropriate comparison of baseline characteristics between the study arms in randomized trials
 | Yes | Unclear | No |
| 1. Correct assessment and adjustment of confounding
 | Yes | Unclear | No |
| 1. Avoiding model extrapolation not supported by data
 | Yes | Unclear | No |
| 1. Adequate handling of missing data
 | Yes | Unclear | No |
| ***Reporting and presentation*** |  |  |  |
| 1. Adequate and correct description of the data
 | Yes | Unclear | No |
| 1. Descriptive results provided as occurrence measures with confidence intervals, and analytic results provided as association measures and confidence intervals along with P-values
 | Yes | Unclear | No |
| 1. Confidence intervals provided for the contrast between groups rather than for each groupYesUnclearNo
 | Yes | Unclear | No |
| 1. Avoiding selective reporting of analyses and P-hackingYesUnclearNo
 | Yes | Unclear | No |
| 1. Appropriate and consistent numerical precisions for effect sizes, test statistics, and P-values, and reporting the P-values rather their range
 | Yes | Unclear | No |
| 1. Providing sufficient numerical results that could be included in a subsequent meta-analysis
 | Yes | Unclear | No |
| 1. Acceptable presentation of the figures and tables
 | Yes | Unclear | No |
| ***Interpretation*** |  |  |  |
| 1. Interpreting the results based on association measures and 95% confidence intervals along with P-values, and correctly interpreting large P-values as indecisive results, not evidence of absence of an effect
 | Yes | Unclear | No |
| 1. Using confidence intervals rather than post-hoc power analysis for interpreting the results of studies
 | Yes | Unclear | No |
| 1. Correctly interpreting occurrence or association measures
 | Yes | Unclear | No |
| 1. Distinguishing causation from association and correlation
 | Yes | Unclear | No |
| 1. Results of pre-specified analyses are distinguished from the results of exploratory analyses in the interpretation
 | Yes | Unclear | No |
| 1. Appropriate discussion of the study methodological limitations
 | Yes | Unclear | No |
| 1. Drawing only conclusions supported by the statistical analysis and no generalization of the results to subjects outside the target population
 | Yes | Unclear | No |