

Statistical analyses and methods evaluation form

Article id number: _____

Reviewer: _____

Evaluated: _____

Journal name: _____

Volume and pages: _____

Year: _____

DOI: _____

Authors

Name of the first author: _____

Design, software and primary outcome

Study design:

1. cross-sectional survey
2. longitudinal or cohort study
3. case-control
4. intervention study (clinical trial)
5. reliability / diagnostic study
6. laboratory work
7. meta-analysis
8. case study
9. other

Sample size: _____

First software: _____

Second software: _____

Statistical significance of the primary outcome:

0. Not significant
1. Significant
2. Not evaluated

		No	Yes
A. Description of methods			
Item A.1 Statistical methods described with enough detail		0	1
Item A.2 Extended description of some specific procedures		0	1
Item A.3 Software reported		0	1
Item A.4 Reference to statistical literature		0	1
B. Ancillary analyses and computations			
Item B.1 Power analysis and sample calculations		0	1
Item B.2 Methodological considerations		0	1
Item B.3 Variable transforms, recodes or constructs		0	1
Item B.4 Sensitivity or influence		0	1
Item B.5 Stratification or sub-group analyses		0	1
C. Reporting of statistical inference			
Item C.1 P-values		0	1
Item C.2 Confidence intervals		0	1
Item C.3 P-values or confidence intervals in abstract		0	1
Item C.4 Adjustment of p-values (multiple comparisons)		0	1
Item C.5 Actual p-values reported		0	1
D. Number of p-values and CIs in tables and figures		0	1-9 10-29 ≥ 30
Item D.1 Number of p-values	[N1=]	0	1 2 3
Item D.2 Number of CIs	[N2=]	0	1 2 3
E. Number of statistical tables and figure		0	1-2 3-4 ≥ 5
Item E.1 Number of tables	[N3=]	0	1 2 3
Item E.2 Number of figures	[N4=]	0	1 2 3
F. Basic inferential methods for comparing groups			
Item F.1 Comparison of means		0	1
Item F.2 Methods for proportions and cross-tabulations		0	1
Item F.3 Non-parametric methods		0	1
G. Basic methods for repeated measurements			
Item G.1 Comparison of means		0	1
Item G.2 Methods for proportions and cross-tabulations		0	1
Item G.3 Non-parametric methods		0	1
H. Correlation coefficient methods			
Item H.1 Pearson's correlation coefficient or related		0	1
Item H.2 Rank correlation coefficients		0	1
I. Other basic methods			
Item I.1 Kaplan-Meir curve		0	1
Item I.2 Epidemiological measures of disease frequency		0	1
Item I.3 Evaluation of normality		0	1
Item I.4 Missing data methods		0	1
Item I.5 Comparison of variances		0	1

	No	Yes
J. Regression methods		
Item J.1 Linear regression	0	1
Item J.2 Logistic regression	0	1
Item J.3 Cox regression	0	1
Item J.4 Poisson or negative binomial regression	0	1
Item J.5 Other link function	0	1
K. Multivariable model-building		
Item K.1 Assessing assumptions	0	1
Item K.2 Methods for stepwise variable selection	0	1
Item K.3 Covariate adjustments	0	1
Item K.4 Goodness of fit statistics and model validation	0	1
Item K.5 Methods for analyzing interaction	0	1
Item K.6 Influence analysis and other diagnostic statistics	0	1
L. Intra-cluster correlation methods		
Item L.1 GEE	0	1
Item L.2 Random effects models or mixed models	0	1
Item L.3 Complex surveys, robust estimates or other	0	1
M. Measures of agreement and diagnostic tests		
Item M.1 Assessing agreement with continuous outcomes	0	1
Item M.2 Agreement for categorical classifications	0	1
Item M.3 Methods for diagnostic tests	0	1
N. Meta-analysis		
Item N.1 Overall CI or p-value	0	1
Item N.2 Test of homogeneity or meta-regression	0	1
Item N.3 Other meta-analysis procedure	0	1
O. Other multivariable methods		
Item O.1 Factor analysis	0	1
Item O.2 Principal component analysis	0	1
Item O.3 SEM	0	1
Item O.4 Cluster analysis	0	1
Item O.5 Other multivariable method not classified above	0	1
P. Other techniques		
Item P.1 Methods for analyzing time series	0	1
Item P.2 Bayesian methods	0	1
Item P.3 Curve fitting, spline functions or GAM	0	1
Item P.4 Statistical genetics and microarray data	0	1
Item P.5 Artificial neural networks or machine learning	0	1
Item P.6 Simulations	0	1
Item P.7 Bootstrap or jack-knife estimates	0	1
Item P.8 Interim analyses	0	1
Item P.9 Cost-effectiveness analyses	0	1
Item P.10 Other technique not classified in earlier items	0	1