

STROBE Statement—Checklist of items that should be included in reports of *observational studies*

	Item No	Recommendation	Page No
<b>Title and abstract</b>	1	(a) Indicate the study’s design with a commonly used term in the title or the abstract	1
		(b) Provide in the abstract an informative and balanced summary of what was done and what was found	2
<b>Introduction</b>			
Background/rationale	2	Explain the scientific background and rationale for the investigation being reported	4
Objectives	3	State specific objectives, including any prespecified hypotheses	5
<b>Methods</b>			
Study design	4	Present key elements of study design early in the paper	6
Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection	5-6
Participants	6	(a) Give the eligibility criteria, and the sources and methods of selection of participants. Describe methods of follow-up  (b) For matched studies, give matching criteria and number of exposed and unexposed	6
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable	6-7
Data sources/ measurement	8*	For each variable of interest, give sources of data and details of methods of assessment (measurement). Describe comparability of assessment methods if there is more than one group	6-7
Bias	9	Describe any efforts to address potential sources of bias	7-8
Study size	10	Explain how the study size was arrived at	9
Quantitative variables	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why	7,8,9
Statistical methods	12	(a) Describe all statistical methods, including those used to control for confounding  (b) Describe any methods used to examine subgroups and interactions  (c) Explain how missing data were addressed  (d) If applicable, explain how loss to follow-up was addressed  (e) Describe any sensitivity analyses	7,8,9
<b>Results</b>			

Participants	13*	(a) Report numbers of individuals at each stage of study—eg numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study, completing follow-up, and analysed  (b) Give reasons for non-participation at each stage  (c) Consider use of a flow diagram	9
Descriptive data	14*	(a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders  (b) Indicate number of participants with missing data for each variable of interest  (c) Summarise follow-up time (eg, average and total amount)	9,10
Outcome data	15*	Report numbers of outcome events or summary measures over time	NA

Main results	16	(a) Give unadjusted estimates and, if applicable, confounder-adjusted estimates and their precision (eg, 95% confidence interval). Make clear which confounders were adjusted for and why they were included  (b) Report category boundaries when continuous variables were categorized  (c) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period	10,11
Other analyses	17	Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses	10
<b>Discussion</b>			
Key results	18	Summarise key results with reference to study objectives	12
Limitations	19	Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss both direction and magnitude of any potential bias	14,15
Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence	16
Generalisability	21	Discuss the generalisability (external validity) of the study results	16
<b>Other information</b>			
Funding	22	Give the source of funding and the role of the funders for the present study and, if applicable, for the original study on which the present article is based	22

\*Give information separately for exposed and unexposed groups.

**Note:** An Explanation and Elaboration article discusses each checklist item and gives methodological background and published examples of transparent reporting. The STROBE checklist is best used in conjunction with this article (freely available on the Web sites of PLoS Medicine at <http://www.plosmedicine.org/>, Annals of Internal Medicine at <http://www.annals.org/>, and Epidemiology at <http://www.epidem.com/>). Information on the STROBE Initiative is available at <http://www.strobe-statement.org>.

GRRAS checklist for reporting of studies of reliability and agreement

<b>Title and abstract</b>	1. Identify in the title or abstract that interrater/intrarater reliability or agreement was investigated	Yes title and abstract
<b>Introduction</b>	2. Name and describe the diagnostic test of interest explicitly	Line 123
	3. Specify the subject population of interest	Line 101
	4. Specify the rater population of interest( if applicable)	Line 126
	5. Describe what is already known about reliability and agreement and provide a rationale for the study (if applicable)	Line 123-126
<b>Methods</b>	6. Explain how the sample size was chosen. State the determined number of raters, subjects/objects, and replicate observations	Line 226-229
	7. Describe the sampling method	Line 155-161
	8. Describe the measurement/ rating process ( e.g. time interval between repeated measurements, availability of clinical information, blinding)	Line 162-185
	9. State whether measurements/ratings were conducted independently.	Line 175-176
	10. Describe the statistical analysis	Line 187-229
<b>Results</b>	11. State the actual number of raters and subjects which were included and the number of replicate observations which were conducted.	Line 231-233
	12. Describe the sample characteristics of raters and subjects(e.g. training, experience)	Line 233-242 Table 2
<b>Discussion</b>	13. Describe practical relevance of the results.	yes
<b>Auxiliary material</b>	14. Provide detailed results if possible ( e.g. online)	yes

The GRRAS checklist was downloaded from EQUATOR and is referenced: Jan Kottner, Laurent Audigé, Stig Brorson, Allan Donner, Byron J. Gajewski, Asbjørn Hróbjartsson, Chris Roberts, Mohamed Shoukri, David L. Streiner, **Guidelines for Reporting Reliability and Agreement Studies (GRRAS) were proposed**, Journal of Clinical Epidemiology, Volume 64, Issue 1, 2011, Pages 96-106, ISSN 0895-4356

Article information: <https://dx.doi.org/10.21037/jtd-21-1755>

\*As the checklists was provided upon initial submission, the page number/line number reported may be changed due to copyediting and may not be referable in the published version. In this case, the section/paragraph may be used as an alternative reference.