

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

Section/item	Item No	Recommendation	Reported on Page Number/Line Number	Reported on Section/Paragraph
Title and abstract	1	(a) Indicate the study's design with a commonly used term in the title or the abstract	Page 1, Line 1 to 3	Title
		(b) Provide in the abstract an informative and balanced summary of what was done and what was found	Page 2-3, Line 26 to 60	Abstract
Introduction				
Background/ rationale	2	Explain the scientific background and rationale for the investigation being reported	Page 4, Line 66 to 80	Paragraph 1 to 2
Objectives	3	State specific objectives, including any prespecified hypotheses	Page 4, Line 81 to 85	Paragraph 3
Methods				
Study design	4	Present key elements of study design early in the paper	N/A	Reported in other section
Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection	Page 5, Line 89 to 90	Paragraph 1
Participants	6	(a) Cohort study —Give the eligibility criteria, and the sources and methods of selection of participants. Describe methods of follow-up Case-control study —Give the eligibility criteria, and the sources and methods of case ascertainment and control selection. Give the rationale for the choice of cases and controls Cross-sectional study —Give the eligibility criteria, and the sources and methods of selection of participants	Page 5, Line 91 to 104	Paragraph 1
		(b) Cohort study —For matched studies, give matching criteria and number of exposed and unexposed Case-control study —For matched studies, give matching criteria and the number of controls per case	N/A	Not matched study
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable	Page 5, Line 104 to 84	Paragraph 1
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	Page 5-6, Line 105 to 111	Paragraph 1
Bias	9	Describe any efforts to address potential sources of bias	Page 6, Line 111 to 111	Paragraph 1
Study size	10	Explain how the study size was arrived at	Page 6, Line 111 to 115	Paragraph 1
Quantitative variables	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why	Page 6, Line 121 to 121	Paragraph 2

Statistical methods	12	(a) Describe all statistical methods, including those used to control for confounding	Page 6, Line 121 to 128	Paragraph 2
		(b) Describe any methods used to examine subgroups and interactions	N/A	The same methods used
		(c) Explain how missing data were addressed	N/A	No missing data
		(d) Cohort study —If applicable, explain how loss to follow-up was addressed Case-control study —If applicable, explain how matching of cases and controls was addressed Cross-sectional study —If applicable, describe analytical methods taking account of sampling strategy	N/A	All cases are used for comparison, no need for matching
		(e) Describe any sensitivity analyses	N/A	No sensitivity analyses
Results				
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	Yes	Figure 1
		(b) Give reasons for non-participation at each stage	Yes	Figure 1
		(c) Consider use of a flow diagram	Yes	Figure 1
Descriptive data	14*	(a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders	Page 6, line 132 to 141	Paragraph 1
		(b) Indicate number of participants with missing data for each variable of interest	Yes	In the tables using unknown
		(c) Cohort study —Summarise follow-up time (eg, average and total amount)	Yes median survival time was used	In table 4
Outcome data	15*	Cohort study —Report numbers of outcome events or summary measures over time	Yes	In the tables and figure 2
		Case-control study —Report numbers in each exposure category, or summary measures of exposure	N/A	Not Case-control study
		Cross-sectional study —Report numbers of outcome events or summary measures	N/A	Not Cross-sectional study
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	Page 7-8, line 143 to 165	Paragraph 3 to 4
		(b) Report category boundaries when continuous variables were categorized	Page 8, line 166 to 173	Paragraph 5
		(c) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period	N/A	Not did this
Other analyses	17	Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses	Page 8-9, line 174 to 187	Paragraph 6
Discussion				
Key results	18	Summarise key results with reference to study objectives	Page 9, line 189 to 194	Paragraph 1
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	Page 11-12, line 244 to 255	Paragraph 8

Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence	Page 9 to 11, line 195 to 243	Paragraph 2 to 7
Generalisability	21	Discuss the generalisability (external validity) of the study results	Page 12, line 256 to 264	Paragraph 9
Other information				
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	Page 13, line 267 to 269	Funding

*Give information separately for cases and controls in case-control studies and, if applicable, for exposed and unexposed groups in cohort and cross-sectional studies.

Article information: <https://dx.doi.org/10.21037/tcr-21-1128>

*As the checklist 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.