

STROBE Statement

Checklist of items that should be included in reports of observational studies

Section/Topic	Item No	Recommendation	Reported on Page No
Title and abstract	1	(a) Indicate the study's design with a commonly used term in the title or the abstract	1
		The abstract indicates this in the first sentence of the "Methods" in the abstract: In this retrospective study (page 1).	
		(b) Provide in the abstract an informative and balanced summary of what was done and what was found	2
		The abstract describes this in the "Methods" and "Results" sections (page 3).	
Introduction			
Background/rationale	2	Explain the scientific background and rationale for the investigation being reported This is explained in the first two paragraphs of the Introduction (page 4-5).	4,5
Objectives	3	State specific objectives, including any prespecified hypotheses This is explained in the last paragraph of the Introduction (page 5).	4,5
Methods			
Study design	4	Present key elements of study design early in the paper This is explained in the "Patients" of the "Materials and Methods" (page 5-6).	5-7
Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection This is explained in the "Patients", "Data acquisition and analyses" and "Outcome" of the "Materials and Methods" (page 5-6).	5-7
Participants	6	(a) <i>Cohort study</i> —Give the eligibility criteria, and the sources and methods of selection of participants. Describe methods of follow-up This is explained in the "Patients" of the "Materials and Methods" (page 5).	5,6
		<i>Case-control study</i> —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	
		<i>Cross-sectional study</i> —Give the eligibility criteria, and the sources and methods of selection of participants	
		(b) <i>Cohort study</i> —For matched studies, give matching criteria and number of exposed and unexposed This was not a matched study.	5,6
		<i>Case-control study</i> —For matched studies, give matching criteria and the number of controls per case	
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable This is described in the "Statistical analysis" of the "Materials and Methods" (pages 6-7).	5,6
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 This is described in the "Data acquisition and analyses" and "Outcome" in the "Materials and Methods" (pages 5-6).	7
Bias	9	Describe any efforts to address potential sources of bias	7

		This is described in the “Statistical analysis” in the “Materials and Methods” (pages 6-7).	
Study size	10	Explain how the study size was arrived at This is explained in the “Patients” of the “Materials and Methods” (page 6).	5,6
Quantitative variables	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why This is described in the “Data acquisition and analyses” and “Statistical analysis” in the “Materials and Methods” (pages 8-9).	
Statistical methods	12	(a) Describe all statistical methods, including those used to control for confounding This is described in the “Statistical analysis” in the “Materials and Methods” (pages 8-9).	7
		(b) Describe any methods used to examine subgroups and interactions This is described in the “Statistical analysis” in the “Materials and Methods” (pages 8-9), regarding multiple logistic regression analyses.	
		(c) Explain how missing data were addressed This is described in the “Statistical analysis” in the “Materials and methods” (pages 8-9).	
		(d) <i>Cohort study</i> —If applicable, explain how loss to follow-up was addressed This is described in the “Patients” and the “Statistical analysis” of the “Materials and Methods” (pages 8-9). <i>Case-control study</i> —If applicable, explain how matching of cases and controls was addressed <i>Cross-sectional study</i> —If applicable, describe analytical methods taking account of sampling strategy	
		(e) Describe any sensitivity analyses None.	

Section/Topic	Item No	Recommendation	Reported on Page No
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 This is explained in the “Patients” of the “Materials and Methods” (page 9).	11-14
		(b) Give reasons for non-participation at each stage This is explained in the “Patients” of the “Materials and Methods” (page 9).	
		(c) Consider use of a flow diagram No flow diagram.	9-11
Descriptive data	14*	(a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders This is described in “Demography, admission status and treatments, and relation to clinical outcome” of the “Results” (page 10).	

		(b) Indicate number of participants with missing data for each variable of interest This is indicated in the “Patients” in the “Materials and Methods” (pages 9).	
		(c) <i>Cohort study</i> —Summarise follow-up time (eg, average and total amount) This is described in the “Data acquisition and analysis” and “Outcome” in the “Materials and Methods” (pages 9-11).	
Outcome data	15*	<i>Cohort study</i> —Report numbers of outcome events or summary measures over time This is described in the “Materials and Methods” (pages 9). <i>Case-control study</i> —Report numbers in each exposure category, or summary measures of exposure <i>Cross-sectional study</i> —Report numbers of outcome events or summary measures	9-11
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 This is explained in the “Results” (page 10-11). (b) Report category boundaries when continuous variables were categorized Outcome was dichotomized into favorable and unfavorable outcome (page 10-11). (c) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period None.	9-11
Other analyses	17	Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses None.	
Discussion			
Key results	18	Summarise key results with reference to study objectives This is described in the first paragraph of the “Discussion” (page 11).	11-14
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 This is considered in the entire “Discussion” (page 14).	11-14
Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence This is considered in the entire “Discussion” (pages 11-14).	11-14
Generalisability	21	Discuss the generalisability (external validity) of the study results This is explained in the “Conclusions” (page 15).	
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 This is described in the “Funding” (no 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.

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 www.strobe-statement.org.