

## 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 4-6 Page 3/Line 43-49-58	Title Abstract
		(b) Provide in the abstract an informative and balanced summary of what was done and what was found	Page 3/Line 39-65-58	Abstract
<b>Introduction</b>				
Background/ rationale	2	Explain the scientific background and rationale for the investigation being reported	Page 4-5 /Line 70-118	Introduction/Paragraph 1-4
Objectives	3	State specific objectives, including any prespecified hypotheses	Page 6 /Line 119-121	Introduction/Paragraph 5
<b>Methods</b>				
Study design	4	Present key elements of study design early in the paper	Page 7/Line 125-128	Study design/Paragraph 1
Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection	Page 7/Line 125-128 Page 7/Line 138-142	Study design/Paragraph 1 Data source/Paragraph 1
Participants	6	(a) <b>Cohort study</b> —Give the eligibility criteria, and the sources and methods of selection of participants. Describe methods of follow-up <b>Case-control study</b> —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 <b>Cross-sectional study</b> —Give the eligibility criteria, and the sources and methods of selection of participants	Page 7/Line 125-128 Page 7/Line 130-136 Page 7/Line 138-142	Study design/Paragraph 1 Participants/Paragraph 2 Data source/Paragraph 3
		(b) <b>Cohort study</b> —For matched studies, give matching criteria and number of exposed and unexposed <b>Case-control study</b> —For matched studies, give matching criteria and the number of controls per case	N/A; This is not a matched study.	N/A; This is not matched study.
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable	Page 8/Line 144-148 Page 8/Line 150-158	Objectives/Paragraph 4 Variables/Paragraph 5
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 7/Line 138-142 Page 8/Line 150-158	Data source/Paragraph 3 Variables/Paragraph 5
Bias	9	Describe any efforts to address potential sources of bias	Page 7/Line 130-136 Page 7/Line 138-142	Participants/Paragraph 2 Data source/Paragraph 3
Study size	10	Explain how the study size was arrived at	N/A; This is a retrospective study.	N/A; This is a retrospective study.
Quantitative variables	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why	Page 8/Line 150-158 Page 8-9/Line 160-174	Variables/Paragraph 5 Statistical analysis/Paragraph 6

Statistical methods	12	(a) Describe all statistical methods, including those used to control for confounding	Page 8-9/Line 160-174	Statistical analysis/Paragraph 6
		(b) Describe any methods used to examine subgroups and interactions	Page 8-9/Line 160-174	Statistical analysis/Paragraph 6
		(c) Explain how missing data were addressed	Page 8-9/Line 160-174	Statistical analysis/Paragraph 6
		(d) <b>Cohort study</b> —If applicable, explain how loss to follow-up was addressed <b>Case-control study</b> —If applicable, explain how matching of cases and controls was addressed <b>Cross-sectional study</b> —If applicable, describe analytical methods taking account of sampling strategy	Page 8-9/Line 160-174	Statistical analysis/Paragraph 6
		(e) Describe any sensitivity analyses	N/A; It is not included in this study.	N/A; It is not included in this study.
<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	Page 10/Line 177-180	Patients characteristics/Paragraph 1
		(b) Give reasons for non-participation at each stage	Page 10/Line 177-180	Patients characteristics/Paragraph 1
		(c) Consider use of a flow diagram	N/A; It is not included in this study.	N/A; It is not included in this study.
Descriptive data	14*	(a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders	Page 10 /Line 177-194	Patients characteristics/Paragraph 1-2
		(b) Indicate number of participants with missing data for each variable of interest	Page 10/Line 177-180	Patients characteristics/Paragraph 1
		(c) <b>Cohort study</b> —Summarise follow-up time (eg, average and total amount)	N/A; This is not a cohort study.	N/A; This is not a cohort study.
Outcome data	15*	<b>Cohort study</b> —Report numbers of outcome events or summary measures over time	N/A; This is not a cohort study.	N/A; This is not a cohort study.
		<b>Case-control study</b> —Report numbers in each exposure category, or summary measures of exposure	N/A; This is not a case-control study.	N/A; This is not a case-control study.
		<b>Cross-sectional study</b> —Report numbers of outcome events or summary measures	Page 10/Line 177-180	Patients characteristics/Paragraph 1
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 10-11/Line 196-203	Effectiveness results /Paragraph 3
		(b) Report category boundaries when continuous variables were categorized	Page 10-11/Line 196-203	Effectiveness results /Paragraph 3
		(c) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period	N/A; There is no relevance.	N/A; There is no relevance.
Other analyses	17	Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses	Page 11-13/Line 213-251 Page 13/Line 253-262	Analysis by subgroups / Paragraph 5-9 Analysis by subgroups / Paragraph 10-11
<b>Discussion</b>				

Key results	18	Summarise key results with reference to study objectives	Page 17-18/Line 352-360	Discussion/Paragraph 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	Page 17 /Line 333-346	Discussion/Paragraph 10
Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence	Page 14-18 /Line 264-360	Discussion/Paragraph 1-12
Generalisability	21	Discuss the generalisability (external validity) of the study results	Page 14-15 / Line 266-286 Page 16 /Line 317-323	Discussion/Paragraph 2 Discussion/Paragraph 8
<b>Other informationFun</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	Page 19 /Line 365	Funding/Paragraph 1

\*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](http://www.strobe-statement.org).

**Article Information:** <https://dx.doi.org/10.21037/jgo-22-517>

\*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.