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	Line 56-58	Abstract: Background
		(b) Provide in the abstract an informative and balanced summary of what was done and what was found	Line 60-65 and line 78 -87	Abstract: Methods and Results
Introduction				
Background/ rationale	2	Explain the scientific background and rationale for the investigation being reported	Line 102-104 and 122- 131	Introduction
Objectives	3	State specific objectives, including any prespecified hypotheses	Line 132 - 143	Introduction
Methods				
Study design	4	Present key elements of study design early in the paper	Line 163-167 and 175-178	Methods
Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection	Line 163-172	Methods
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	Observational study of retrospective nature line 163 - 172 and figure 1	Methods
		(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 is an observational non-matched study	N/A is an observational non-matched study
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable	Line 175 -178, line 185 -1209 and line 129-146	Methods: Local recurrence score, Statistics
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	Line 175 -209	Methods: Local recurrence score
Bias	9	Describe any efforts to address potential sources of bias	Retrospective nature is a limitation per se. Line 441 - 457	Discusssion
Study size	10	Explain how the study size was arrived at	No calculated study size due to its retrospective nature	Results: Patient characteristics
Quantitative variables	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why	Line 212 -236	Methods: Statistics

Statistical methods	12	(a) Describe all statistical methods, including those used to control for confounding	Line 212-236	Methods: Statistics
		(b) Describe any methods used to examine subgroups and interactions	Line 212 -236	Methods: Statistics
		(c) Explain how missing data were addressed	Missing values are indicated	Table 1 and 2
		(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	None lost to follow up of all eligible patients, Figure 1	Figure 1: Flowchart
		(e) Describe any sensitivity analyses	N/A in this observational	N/A in this observational
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	Figure 1: Flowchart	Figure 1: Flowchart
		(b) Give reasons for non-participation at each stage	Figure 1: Flowchart	Figure 1: Flowchart
		(c) Consider use of a flow diagram	Figure 1: Flowchart	Figure 1: Flowchart
Descriptive data	14*	(a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders	Table 1	Table 1
		(b) Indicate number of participants with missing data for each variable of interest	Line 272 - 277	Results: Patient characteristics.
		(c) ***Cohort study***—Summarise follow-up time (eg, average and total amount)	Line 167 - 172 and 293 - 294	Methods and Results
Outcome data	15*	***Cohort study***—Report numbers of outcome events or summary measures over time	Line 268 -294. line 316- 231	Results
		Case-control study—Report numbers in each exposure category, or summary measures of exposure	N/A, no case control study	N/A, no case control study
		Cross-sectional study—Report numbers of outcome events or summary measures	N/A no cross sectional	N/A no cross sectional
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	Line 217 - 220, line 316 - 321	Statistics; Results: Prognostic impact of LRS
		(b) Report category boundaries when continuous variables were categorized	Line 212 - 214 and Table 1	Statistics, given in Table 1
		(c) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period	N/A, not perforemd	N/A, not perforemd
Other analyses	17	Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses	N/A, no subgroup analysis	N/A, no subgroup analysis
Discussion				
Key results	18	Summarise key results with reference to study objectives	Line 365 - 369. line 400-410	Discussion
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	Line 441-457	Discussion

Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence	Line 386-410, line 436-437 and 441-457	Discussion
Generalisability	21	Discuss the generalisability (external validity) of the study results	This is a retrospective data analysis	This is a retrospective data analysis
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	Partly funded by Swiss National Science Foundation	Partly funded by Swiss National Science Foundation

*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.

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*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.