## 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 | Pages 1, 4/Lines 2, 4, 63 | Title, Abstract (Methods |
| | | (b) Provide in the abstract an informative and balanced summary of what was done and what was found | Pages 4, 5/Lines 72-85 | Abstract (Results section) |
| **Introduction** | | | | |
| Background/ rationale | 2 | Explain the scientific background and rationale for the investigation being reported | Pages 6-8/Lines 94-129 | Introduction (first three paragraphs) |
| Objectives | 3 | State specific objectives, including any prespecified hypotheses | Pages 7-8/Lines 130-139 | Introduction (final |
| **Methods** | | | | |
| Study design | 4 | Present key elements of study design early in the paper | Pages 8-10/Lines 145-187 | Methods (first four |
| Setting | 5 | Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection | Pages 8-11/Lines 145-165 | Methods (first two paragraphs) |
| Participants | 6 | (a) ***Cohort study***—Give the eligibility criteria, and the sources and methods of selection of participants. Describe methods of follow-up<br>***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<br>***Cross-sectional study***—Give the eligibility criteria, and the sources and methods of selection of participants | Pages 8-9/Lines 145-161<br>N/a, not a case-control study<br>N/a, not a cross-sectional | Methods (first paragraph) |
| | | (b) ***Cohort study***—For matched studies, give matching criteria and number of exposed and unexposed<br>***Case-control study***—For matched studies, give matching criteria and the number of controls per case | N/a, not a matched study<br>N/a, not a case-control study | /a, not a matched study<br>N/a, not a case-control study |
| Variables | 7 | Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable | Pages 9-12/Lines 167-240 | Methods (third to last paragraph) |
| 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 | Pages 9-12/Lines 167-240 | Methods (third to last paragraph) |
| Bias | 9 | Describe any efforts to address potential sources of bias | Pages 11-12/Lines 218-240 | Methods (final two |
| Study size | 10 | Explain how the study size was arrived at | Pages 8, 11/Lines | Methods (first and ninth |
| Quantitative variables | 11 | Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why | Pages 11-12/Lines 227-229 | Methods (one before last paragraph) |

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| Statistical methods | 12 | (a) Describe all statistical methods, including those used to control for confounding | Pages 11-12/Lines 218-240 | Methods (final two |
| | | (b) Describe any methods used to examine subgroups and interactions | Pages 11-12/Lines 218-40 | Methods (final two |
| | | (c) Explain how missing data were addressed | Page 11/Lines 215-217 | Methods (Statistical |
| | | (d) ***Cohort study***—If applicable, explain how loss to follow-up was addressed<br>***Case-control study***—If applicable, explain how matching of cases and controls was addressed<br>***Cross-sectional study***—If applicable, describe analytical methods taking account of sampling strategy | N/a, not applicable | N/a, not applicable |
| | | (e) Describe any sensitivity analyses | Not applied | Not applied |
| **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 | Pages 12/Lines 244-245 | Results (first paragraph) |
| | | (b) Give reasons for non-participation at each stage | Page 8/Lines 145-161 | Methods (first paragraph) |
| | | (c) Consider use of a flow diagram | Supplemental Figure 1 | Supplementary Material |
| 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 | Page 11/Lines 215-217 | Methods (Statistical |
| | | (c) ***Cohort study***—Summarise follow-up time (eg, average and total amount) | Page 14/Line 284 | Results (fourth paragraph) |
| Outcome data | 15* | ***Cohort study***—Report numbers of outcome events or summary measures over time | Tables 3, 5 | Tables 3, 5 |
| | | ***Case-control study***—Report numbers in each exposure category, or summary measures of exposure | N/a, not a case-control | /a, not a case-control study |
| | | ***Cross-sectional study***—Report numbers of outcome events or summary measures | N/a, not a cross-sectional | N/a, not a 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 | Tables 4, 6 | Tables 4, 6 |
| | | (b) Report category boundaries when continuous variables were categorized | N/a, not applicable | N/a, not applicable |
| | | (c) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period | N/a, not relevant | N/a, not relevant |
| Other analyses | 17 | Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses | N/a, no other analyses done | N/a, no other analyses done |
| **Discussion** | | | | |
| Key results | 18 | Summarise key results with reference to study objectives | Pages 21-22/Lines 452-478 | Discussion (last paragraph) |
| 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 21-22/Lines 458-462 | Discussion (last paragraph) |

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| Interpretation | 20 | Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence | Pages 16-22/Lines 303-478 | Discussion (whole section) |
| Generalisability | 21 | Discuss the generalisability (external validity) of the study results | Pages 21-22/Lines 452-478 | Discussion (last paragraph) |
| **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 23/ Lines 501-505 | Funding section |

*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.