## 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 2 / lines 31-33 | abstract / par 2 |
| | | (b) Provide in the abstract an informative and balanced summary of what was done and what was found | page 2 /lines 28-45 | abstract / par 1-4 |
| **Introduction** | | | | |
| Background/ rationale | 2 | Explain the scientific background and rationale for the investigation being reported | page 3 / lines 54-67 | introduction / par 1-3 |
| Objectives | 3 | State specific objectives, including any prespecified hypotheses | page 3 / lines 68-74 | introduction / par 4 |
| **Methods** | | | | |
| Study design | 4 | Present key elements of study design early in the paper | page 4 / lines 83-91 | methods / par 2 |
| Setting | 5 | Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection | pages 4-6 / lines 83-130 | methods / par 2-5 |
| 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 | page 4 / lines 83-91 | methods / par 2 |
| | | (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 - no matched study | N/A - no matched study |
| Variables | 7 | Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable | page 4-6 / lines 83-130 | methods / par 2-5; Tables 1-4 |
| 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 4-6 / lines 83-130 | methods / par 2-5 |
| Bias | 9 | Describe any efforts to address potential sources of bias | page 4 / lines 83-91 | methods / par 1 |
| Study size | 10 | Explain how the study size was arrived at | page 4 / lines 83-91 | methods / par 1 |
| Quantitative variables | 11 | Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why | page 6 / lines 131-146 | methods / par 6 |

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| Statistical methods | 12 | (a) Describe all statistical methods, including those used to control for confounding | page 6 / lines 131-146 | methods / par 6 |
| | | (b) Describe any methods used to examine subgroups and interactions | page 6 / lines 131-146 | methods / par 6 |
| | | (c) Explain how missing data were addressed | page 6 / lines 131-146 | methods / par 6 |
| | | (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 - single arm study, no follow up | N/A - single arm study, no follow up |
| | | (e) Describe any sensitivity analyses | page 6 / lines 131-146 | methods / par 6 |
| **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 | page 7 / lines 150-151; | results / par 2; fig 2 |
| | | (b) Give reasons for non-participation at each stage | page 7 / lines 150-151; | results / par 2 / fig 2 |
| | | (c) Consider use of a flow diagram | page 7 / lines 150-151; | results / par 2 / fig 2 |
| Descriptive data | 14* | (a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders | page 7 / lines 150-160; | results / par 2 / tables 1-2 |
| | | (b) Indicate number of participants with missing data for each variable of interest | N/A - see tables 1-2 | results / tables 1-2 |
| | | (c) ***Cohort study***—Summarise follow-up time (eg, average and total amount) | N/A - no follow up | N/A - no follow up |
| Outcome data | 15* | ***Cohort study***—Report numbers of outcome events or summary measures over time | see tables 1-2 | results / table 2 |
| | | ***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 case control study | N/A no case control 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 8-9 lines 186-205 | results par 5-6, table 4 |
| | | (b) Report category boundaries when continuous variables were categorized | N/A - not done | N/A - not done |
| | | (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 | page 8-9, lines 195-205 | results / par 6 |
| **Discussion** | | | | |
| Key results | 18 | Summarise key results with reference to study objectives | p. 10-11, lines 208-237 | discussion / par 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 12, lines 267-281 | discussion / par 5 |

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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 | page 11-12, lines 239-282 | discussion, par 2-5 |
| Generalisability | 21 | Discuss the generalisability (external validity) of the study results | p. 12-13, lines 284-293 | conclusions, par 1 |
| **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 | N/A - no funding | N/A - 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.

Article information: https://dx.doi.org/10.21037/jtd-22-1581
*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.