STROBE Statement—checklist of items that should be included in reports of observational studies

| | Item No | Recommendation | Page / lines No |
|---|---|---|---|
| **Title and abstract** | 1 | (*a*) Indicate the study's design with a commonly used term in the title or the abstract | 1 / 7-8 |
| | | (*b*) Provide in the abstract an informative and balanced summary of what was done and what was found | 1-2/18-38 |
| **Introduction** | | | |
| Background/rationale | 2 | Explain the scientific background and rationale for the investigation being reported | 5-6/164-180, 182-184, 187-190 |
| Objectives | 3 | State specific objectives, including any prespecified hypotheses | 6/184-187, 191-193 |
| **Methods** | | | |
| Study design | 4 | Present key elements of study design early in the paper | 6-7/197-219 |
| Setting | 5 | Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection | 6-7/197-204, 208-211, 215-218, 220-222 |
| 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 | 6-7/197-203, 208-214, 219, 222-224 |
| | | (*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 | 7/208-211, 222-224, Figure 1 |
| Variables | 7 | Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable | 7/201-203, 208-212 |
| 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 | *8-9/230-245* |
| Bias | 9 | Describe any efforts to address potential sources of bias | 8-9/235-238, 241-245 |
| Study size | 10 | Explain how the study size was arrived at | 6-7/197-203, 208-214, 222-224 |
| Quantitative variables | 11 | Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why | 9/238-245 |

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| Statistical methods | 12 | (*a*) Describe all statistical methods, including those used to control for confounding | 9/250-254 |
| | | (*b*) Describe any methods used to examine subgroups and interactions | 9/250-254 |
| | | (*c*) Explain how missing data were addressed | non applicable |
| | | (*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 | 7/212-213, 223-224 |
| | | (*e*) Describe any sensitivity analyses | non applicable |

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| **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 | 9-11/258-265, 272-281, 290-292 |
| | | (b) Give reasons for non-participation at each stage | non applicable |
| | | (c) Consider use of a flow diagram | 8, 11/Figure 1, |
| Descriptive data | 14 * | (a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders | 9/258-265, Table 1 |
| | | (b) Indicate number of participants with missing data for each variable of interest | non applicable |
| | | (c) *Cohort study*—Summarise follow-up time (eg, average and total amount) | 10/278-281 |
| Outcome data | 15 * | *Cohort study*—Report numbers of outcome events or summary measures over time | *11/ Table 2* |
| | | *Case-control study*—Report numbers in each exposure category, or summary measures of exposure | |
| | | *Cross-sectional study*—Report numbers of outcome events or summary measures | |
| 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 | 10-11/275-277, Table 2 |
| | | (*b*) Report category boundaries when continuous variables were categorized | 9-10/259-261, Table 1, 275-277 |
| | | (*c*) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period | non applicable |
| Other analyses | 17 | Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses | 13/Table 3 |
| **Discussion** | | | |
| Key results | 18 | Summarise key results with reference to study objectives | 13-15/327-332, 345-346, 362-366, 371-373 |
| 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 | 13-15/325-327, 333-335, 355-357, |

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| | | | 377-380, 384-386 |
| Interpretation | 20 | Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence | 13-15/324-386 |
| Generalisability | 21 | Discuss the generalisability (external validity) of the study results | 15/389-397 |
| **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 | 2/65 |

*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.