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

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| --- | --- | --- | --- | --- |
|  | **Item****No** |  |  | **Page** |
| **Title and abstract** | 1 | (*a*) Indicate the study’s design with a commonly used term in the title or the abstract |  | 1 |
|  |  | (*b*) Provide in the abstract an informative and balanced summary of what was doneand what was found |  | 3-4 |
| **Introduction** |  |  |  |  |
| Background/rationale | 2 | Explain the scientific background and rationale for the investigation being reported |  | 5-6 |
| Objectives | 3 | State specific objectives, including any prespecified hypotheses |  | 6 |
| **Methods** |  |  |  |  |
| Study design | 4 | Present key elements of study design early in the paper |  | 6 |
| Setting | 5 | Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection |  | 6-8 |
| 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 ofselection of participants |  | 6 |
|  |  | (*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 ofcontrols per case |  |  |
| Variables | 7 | Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable |  | 6-8 |
| 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 thereis more than one group |  | 6-8 |
| Bias | 9 | Describe any efforts to address potential sources of bias |  | 6 |
| Study size | 10 | Explain how the study size was arrived at |  | 6 |
| Quantitative variables | 11 | Explain how quantitative variables were handled in the analyses. If applicable,describe which groupings were chosen and why |  | 8 |
| Statistical methods | 12 | (*a*) Describe all statistical methods, including those used to control for confounding |  | 6-8 |
|  |  | (*b*) Describe any methods used to examine subgroups and interactions |  | 6-8 |
|  |  | (*c*) Explain how missing data were addressed |  | 8 |
|  |  | (*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 ofsampling strategy |  | 7 |
|  |  | (*e*) Describe any sensitivity analyses |  | 8 |
| **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 | 7 and 8-9 |
|  |  |  | (b) Give reasons for non-participation at each stage |  |
|  |  |  | (c) Consider use of a flow diagram |  |
| Descriptivedata | 14\* |  | (a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders | 8-9 |
|  |  |  | (b) Indicate number of participants with missing data for each variable of interest | 8 |
|  |  |  | (b) Indicate number of participants with missing data for each variable of interest | 8 |
| Outcome data | 15\* |  | Cohort study—Report numbers of outcome events or summary measures over time | 8-10 |
|  |  |  | 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 | 8-10 |
|  |  |  | (b) Report category boundaries when continuous variables were categorized |  |
|  |  |  | (c) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period |  |
| Other analyses | 17 |  | Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses | 8-10 |
| **Discussion** |  |  |  |  |
| Key results | 18 |  | Summarise key results with reference to study objectives | 10-11 |
| 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 | 14-15 |
| Interpretation | 20 |  | Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence | 10-14 |
| Generalisability | 21 |  | Discuss the generalisability (external validity) of the study results | 10-14 |
| **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 | No funding received, 2 |

\*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.