STROBE Statement—Checklist of items that should be included in reports of ***cross-sectional studies***

**Study / Protocol**

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**Appraisal**

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| **Heading** | **Item No** | **Hint** | **Study** | **Page No.** |
| **TITLE AND ABSTRACT** | 1 | (*a*) Indicate the study’s design with a commonly used term in the title or the abstract |  |  |
|  |  | (*b*) Provide in the abstract an informative and balanced summary of what was done and what was found |  |  |
| **INTRODUCTION** |  |  |  |  |
| **Background / Rationale** | 2 | Explain the scientific background and rationale for the investigation being reported |  |  |
| **Objectives** | 3 | State specific objectives, including any prespecified hypotheses |  |  |
| **METHODS** |  |  |  |  |
| **Study design** | 4 | Present key elements of study design early in the paper |  |  |
| **Setting** | 5 | Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection |  |  |
| **Participants** | 6 | (*a*) Give the eligibility criteria, and the sources and methods of selection of participants |  |  |
| **Variables** | 7 | Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable |  |  |
| **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 |  |  |
| **Bias** | 9 | Describe any efforts to address potential sources of bias |  |  |
| **Study size** | 10 | Explain how the study size was arrived at |  |  |
| **Quantitative variables** | 11 | Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why |  |  |
| **Statistical methods** | 12 | (*a*) Describe all statistical methods, including those used to control for confounding |  |  |
|  |  | (*b*) Describe any methods used to examine subgroups and interactions |  |  |
|  |  | (*c*) Explain how missing data were addressed |  |  |
|  |  | (*d*) If applicable, describe analytical methods taking account of sampling strategy |  |  |
|  |  | (*e*) Describe any sensitivity analyses |  |  |
| **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 |  |  |
|  |  | (b) Give reasons for non-participation at each stage |  |  |
|  |  | (c) Consider use of a flow diagram |  |  |
| **Descriptive data** | 14\* | (a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders |  |  |
|  |  | (b) Indicate number of participants with missing data for each variable of interest |  |  |
| **Outcome data** | 15\* | 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 |  |  |
|  |  | (*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 |  |  |
| **DISCUSSION** |  |  |  |  |
| **Key results** | 18 | Summarise key results with reference to study objectives |  |  |
| **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 |  |  |
| **Interpretation** | 20 | Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence |  |  |
| **Generalisability** | 21 | Discuss the generalisability (external validity) of the study results |  |  |
| **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 |  |  |

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\*Give information separately for exposed and unexposed groups.

**REFERENCE**: von Elm E, Altman DG, Egger M, Pocock SJ, Gotzsche PC, Vandenbroucke JP. The Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) Statement: guidelines for reporting observational studies. PLoS Med. 2007;4(10):e296. PMID: 17941714