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|  | **Item No** | **Recommendation** |  |
| Title and abstract | 1 | (a) Indicate the study’s design with a commonly used term in the title or the abstract | Yes  |
|  |  | (b) Provide in the abstract an informative and balanced summary of what was done and what was found | Yes  |
| Introduction |  |  |  |
| Background/rationale | 2 | Explain the scientific background and rationale for the investigation being reported | Under Background; para 7; line 116 - 121 |
| Objectives | 3 | specific objectives, including any pre-specified hypotheses | * Hypothesis: Under Background; para 8; line 122-132
* Under Objective; line 134 to line 139
 |
| Methods |  |  |  |
| Study design | 4 | Present key elements of study design early in the paper | Under Methods: para 2; line 141-143 |
| Setting | 5 | Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection | Under Methods - para 6; line 178-188 |
| Participants | 6 | Cross-sectional study—Give the eligibility criteria, and the sources and methods of selection of participants | Under Methods - para 6; line 181-184 |
| Variables | 7 | Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable | Under Methods: para 5; line 167-168 |
| 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 | Under Methods –para 3; line 153-160 |
| Bias | 9 | Describe any efforts to address potential sources of bias | Under Methods – para 6; line 184-185 |
| Study size | 10 | Explain how the study size was arrived at | Under sample size; line 193-196 |
| Quantitative variables | 11 | Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why | Under statistical analysis: para 1; line 211-219 & para 6 ; line 238-250.  |
| Statistical methods | 12 | Describe all statistical methods, including those used to control for confounding | Under statistical analysis: para 1&2; line 207-219 |
|  |  | Describe any methods used to examine subgroups and interactions | Not applicable  |
|  |  | Explain how missing data were addressed | Under Results: para 1; line 252 - 253 |
|  |  | If applicable, describe analytical methods taking account of sampling strategy | Not applicable |
|  |  | Describe any sensitivity analyses | Not applicable |
| Results |  |  |  |
| Participants | 13 | 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 analyzed (b) Give reasons for non-participation at each stage (c) Consider use of a flow diagram  | Under Results : para 1; line 252 - 253 |
| 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 | Under Results : para 1and para 2; line 254 - 268 |
| Outcome data | 15 | Cross-sectional study—Report numbers of outcome events or summary measures | Under Results: line 270- 339 |
| Main results | 16 | (a) Give unadjusted estimates and, if applicable, confounder-adjusted estimates and their precision (e.g., 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 | Under Results: line 270- 339 |
| Other analyses | 17 |  | Not applicable  |
| Discussion |  |  |  |
| Key results | 18 | Summarize key results with reference to study objectives | Para 3 under discussion; Line 351 to 358  |
| 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 | Para 8 under discussion; Line 391 to 401.  |
| Interpretation | 20 | Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence | Para 4 under discussion; Line 361 to 377 |
| Generalizability | 21 | Discuss the generalizability (external validity) of the study results | Para 11 under discussion; Line 402 to 410 |
| 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 | Line 565-566 |