STROBE Statement—Checklist of items that should be included in reports of ***cohort studies***

| | Item No | Recommendation |
|---|---|---|
| **Title and abstract** | 1 | (*a*) Indicate the study's design with a commonly used term in the title or the abstract. *(Page 1).* |
| | | (*b*) Provide in the abstract an informative and balanced summary of what was done and what was found. *(Page 3).* |
| **Introduction** | | |
| Background/rationale | 2 | Explain the scientific background and rationale for the investigation being reported. *(Page 5-7).* |
| Objectives | 3 | State specific objectives, including any prespecified hypotheses. (Page 6). |
| **Methods** | | |
| Study design | 4 | Present key elements of study design early in the paper. *(Page 19).* |
| Setting | 5 | Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection. *(Page 19).* |
| Participants | 6 | (*a*) Give the eligibility criteria, and the sources and methods of selection of participants. Describe methods of follow-up. *(Page 19).* |
| | | (*b*) For matched studies, give matching criteria and number of exposed and unexposed. (*These are matched identical twins).* |
| Variables | 7 | Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable. *(Outcomes are bacterial sequences).* |
| 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. *(Sequencing data source can be found in supplement).* |
| Bias | 9 | Describe any efforts to address potential sources of bias. *(Bias is as low as possible as these are identical twins. Lab blinding of samples from allergic and non-allergic twins).* |
| Study size | 10 | Explain how the study size was arrived at. *(These are samples from identical twins requiring a low sample size).* |
| Quantitative variables | 11 | Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why. *(Page 17).* |
| Statistical methods | 12 | (*a*) Describe all statistical methods, including those used to control for confounding. *(Page 28).* |
| | | (*b*) Describe any methods used to examine subgroups and interactions. *(Page 28).* |
| | | (*c*) Explain how missing data were addressed *N/A. No missing data.* |
| | | (*d*) If applicable, explain how loss to follow-up was addressed. *N/A. No loss to follow-up.* |
| | | (*e*) Describe any sensitivity analyses. *N/A.* |
| **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. *N/A.* |
| | | (b) Give reasons for non-participation at each stage. *N/A.* |
| | | (c) Consider use of a flow diagram. *(Figure 1).* |
| Descriptive data | 14* | (a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders. *(Table 1).* |
| | | (b) Indicate number of participants with missing data for each variable of interest. |

| | | |
|---|---|---|
| | | *N/A.* |
| | | (c) Summarise follow-up time (eg, average and total amount). *N/A.* |
| Outcome data | 15* | Report numbers of outcome events or summary measures over time. *N/A.* |
| 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. *N/A.* |
| | | (*b*) Report category boundaries when continuous variables were categorized. *N/A.* |
| | | (*c*) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period. *N/A.* |
| Other analyses | 17 | Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses. *N/A.* |
| **Discussion** | | |
| Key results | 18 | Summarise key results with reference to study objectives. *(Page 14).* |
| 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 17).* |
| Interpretation | 20 | Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence. *(Pages 14-18).* |
| Generalisability | 21 | Discuss the generalisability (external validity) of the study results. *(Pages 17-18).* |
| **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. *(Page 4).* |

*Give information separately for exposed and unexposed groups.

**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 http://www.strobe-statement.org.