

**Supplementary Table 6.** Full guidelines for reporting propensity score analysis, modified From the STROBE (STrengthening the Reporting of OBservational studies in Epidemiology) Statement*

<table>
<thead>
<tr>
<th>Section/topic</th>
<th>Item No</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Title and abstract</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ 1</td>
<td></td>
<td>Indicate the use of propensity analysis with a commonly used term in the title or the abstract</td>
</tr>
<tr>
<td>□ 2</td>
<td></td>
<td>Provide in the abstract an informative and balanced summary of what was done and what was found</td>
</tr>
<tr>
<td><strong>Introduction</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Background/rationale</td>
<td>□ 3</td>
<td>Explain the scientific background and rationale for the investigation being reported</td>
</tr>
<tr>
<td>Objectives</td>
<td>□ 4</td>
<td>State specific objectives, including any prespecified hypotheses</td>
</tr>
<tr>
<td><strong>Methods</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Setting</td>
<td>□ 5</td>
<td>Describe the setting, locations, and relevant dates, including periods of recruitment, treatment, follow-up, and data collection</td>
</tr>
<tr>
<td>Patient selection</td>
<td>□ 6</td>
<td>Give the eligibility criteria, and the sources and methods of subject ascertainment and selection</td>
</tr>
<tr>
<td>Variables</td>
<td>□ 7</td>
<td>Clearly define all outcomes, treatments, predictors. Give diagnostic criteria, if applicable</td>
</tr>
<tr>
<td>Data sources/ measurement</td>
<td>□ 8</td>
<td>For each variable of interest, give sources of data and details of methods of assessment (measurement)</td>
</tr>
<tr>
<td>Bias</td>
<td>□ 9</td>
<td>Describe how propensity score analysis was used to address bias</td>
</tr>
<tr>
<td>Sample size</td>
<td>□ 10</td>
<td>Describe any other methods to address potential sources of bias, e.g. sensitivity analysis</td>
</tr>
<tr>
<td>Statistical analyses</td>
<td>□ 12</td>
<td>Describe all the analytic methods, including the propensity score methods, e.g. matching, weighting, stratification, or covariate adjustment using propensity score</td>
</tr>
</tbody>
</table>
13 Indicate the model used to estimate propensity score, e.g. logistic model, boosting (meta-classifiers), decision trees

14 State the variables included in the propensity score model

15 Explain the variable selection procedure for propensity score model

16 For propensity score matching:
   16.1 Explicitly state the matching algorithm and distance metric
   16.2 Indicate matching ratio (1:m matching)
   16.3 Indicate whether sampling with or without replacement was used
   16.4 Describe the statistical methods for the analysis of matched data
   16.5 Describe methods for assessing the comparability of baseline characteristics in the matched groups

17 For propensity score weighting, describe methods for assessing the comparability of baseline characteristics in the weighted groups

18 For propensity score stratification:
   18.1 Give the number of strata
   18.2 Describe methods for assessing the comparability of baseline characteristics in each stratum

19 Explain how assumption of propensity score analysis was examined

20 Explain how missing data were addressed, including missing data in propensity score estimation

21 If applicable, describe any methods used to examine subgroups and interactions

22 Describe any sensitivity analyses

23 Indicate the software used for analysis

24 If applicable, report the package used to create matched sample, e.g. GMATCH macro in SAS, MatchIt package®, Optmatch package®

Results
Participants
25 Report numbers of participants at each stage of study:
   25.1 sample size of patients potentially eligible
   25.2 sample size of patients confirmed eligible and included
   25.3 sample size of patients analyzed
   25.4 for propensity score matching, sample size for each treatment group before and after matching

26 Explain reasons for exclusion at each stage

27 Consider use of a flow diagram

Patient characteristics
28 Describe the distribution of baseline characteristics for each group before propensity score analysis
For propensity score matching, weighting, or stratification:

- 29.1 Describe the distribution of baseline characteristics in the matched/weighted groups or in each stratum
- 29.2 Describe the results of the comparability of baseline characteristics, whether there are still systematic differences between treatment groups

- 30 Indicate number of patients with missing data for each variable of interest, especially the variables used in propensity score model

### Outcome data
- 31 Report outcomes of each treatment group

### Main results
- 32 Give propensity score analysis estimates and their precision, e.g. 95% confidence interval
- 33 If applicable, give unadjusted estimates and/or adjusted estimates and their precision, e.g. 95% confidence interval. Make clear which additional factors were adjusted for

### Other analyses
- 34 Report other analyses done, e.g. analyses of subgroups and interactions, and sensitivity analyses

### Discussion

#### Key results
- 35 Summarize key results with reference to study objectives

#### Limitations
- 36 Discuss limitations of the study, taking into account sources of potential bias or imprecision
- 37 Discuss both direction and magnitude of any potential bias

#### Interpretation
- 38 Discuss whether imbalance of baseline characteristics still exists, and give a cautious interpretation
- 39 Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence

#### Generalizability
- 40 For propensity score matching, discuss the possibility and potential influence of incomplete matching, especially the studies in which the matched sample size is less than 50%

### Other information

#### Funding
- 41 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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This guideline can be downloaded at:

[https://sites.duke.edu/xiaofeiwang/files/2016/12/Supplementary-Table-6.pdf](https://sites.duke.edu/xiaofeiwang/files/2016/12/Supplementary-Table-6.pdf)