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| **Section/Topic** | **Item** |  | **Checklist Item** | **Page** |
| **Title and abstract** | | | | |
| Title | 1 | D;V | Identify the study as developing and/or validating a multivariable prediction model, the target population, and the outcome to be predicted. |  |
| Abstract | 2 | D;V | Provide a summary of objectives, study design, setting, participants, sample size, predictors, outcome, statistical analysis, results, and conclusions. |  |
| 1 |  | *Use at least one measure of accuracy (such as sensitivity, psecificity, predictive values or AUC).* |  |
|  | 1.1 |  | *The type of data used should be specified in the title or abstract. When possible, the name of the databases used should be included.* |  |
|  | 1.2 |  | *If applicable, the geographic region and timeframe within which the study took place should be reported in the title or abstract.* |  |
| **Introduction** | | | | |
| Background and objectives | 3a | 3 | D;V | Explain the medical context (including whether diagnostic or prognostic) and rationale for developing or validating the multivariable prediction model, including references to existing models. Also, review the current practice and prediction accuracy of any existing models. |  |
| 3b| 3 | D;V | Specify the objectives (and hypothesis), including whether the study describes the development or validation of the model or both. Identify the clinical goal. |  |
|  | 4 |  |  |  |
| **Methods** | | | | |
| Source of data (ADNI) | 4a | D;V | Describe the study design or source of data (e.g.,randomized trial, cohort, or registry data), separately for the development and validation datasets, if applicable. |  |
| 4b | D;V | Specify the key study dates, including start of accrual; end of accrual; and, if applicable, end of follow-up. |  |
| Study design (MY STUDY)[[1]](#footnote-2) | S |  | Whether data collection was planned before the index test and reference standard were performed (prospective study) or after (retrospective study). |  |
|  |  |  |  |  |
| Participants | 5a | D;V | Specify key elements of the study setting (e.g., primary care, secondary care, general population) including number and location of centres. |  |
| 5b | D;V | Describe **eligibility criteria** for participants (ELS DEL MEU ESTUDI) |  |
| 5c | D;V | Give details of treatments received, if relevant. |  |
|  | 6(a) |  | Describe methods of follow up. Give elegibility criteria (for the ADNI). |  |
|  | 6.1 |  | The methods of study population selection (such as codes or algorithms used to iidentify subjects) should be listed in detail. If this is not possible, an explanation should be provided. |  |
|  | 6.2 |  | Any validation studies of the codes or algorithms used to select the population should be referenced. If validation was conducted for this study and not published elsewhere, detailed methods and |  |
| Outcome | 6a | D;V | Clearly define the outcome that is predicted by the prediction model, including how and when assessed. |  |
| 6b | D;V | Report any actions to blind assessment of the outcome to be predicted. |  |
| Predictors | 7a | D;V | Clearly define all predictors used in developing or validating the multivariable prediction model, including how and when they were measured. |  |
| 7b | D;V | Report any actions to blind assessment of predictors for the outcome and other predictors. |  |
| Sample size | 8 | D;V | Explain how the study size was arrived at. |  |
| Missing data | 9 | D;V | Describe how missing data were handled (e.g., complete-case analysis, single imputation, multiple imputation) with details of any imputation method. |  |
| Statistical analysis methods | 10a | D | Describe how predictors were handled in the analyses. |  |
| 10b | D | Specify type of model, all model-building procedures (including any predictor selection), and method for internal validation. |  |
| 10c | V | For validation, describe how the predictions were calculated. |  |
| 10d | D;V | Specify all measures used to assess model performance and, if relevant, to compare multiple models. |  |
| ~~10e~~ | ~~V~~ | ~~Describe any modelupdating (e.g., recalibration) arising from the validation, if done.~~ |  |
| Risk groups | 11 | D;V | Provide details on how risk groups were created, if done. |  |
| ~~Development vs. validation~~ | ~~12~~ | ~~V~~ | ~~For validation, identify any differences from the development data in setting, eligibility criteria, outcome, and predictors.~~ |  |
| **Results** | | | | |
| Participants | 13a | D;V | Describe the flow of participants through the study, including the number of participants with and without the outcome and, if applicable, a summary of the follow-up time. A diagram may be helpful. |  |
| 13b | D;V | Describe the characteristics of the participants (basic demographics, clinical features, available predictors), including the number of participants with missing data for predictors and outcome. |  |
| ~~13c~~ | ~~V~~ | ~~For validation, show a comparison with the development data of the distribution of important variables (demographics, predictors and outcome).~~ |  |
| Model development | 14a | D | Specify the number of participants and outcome events in each analysis. |  |
| 14b | D | If done, report the unadjusted association between each candidate predictor and outcome. |  |
| Model specification | 15a | D | ~~Present the full prediction model to allow predictions for individuals (i.e., all regression coefficients, and model intercept or baseline survival at a given time point).~~ |  |
| 15b | D | Explain how to the use the prediction model. |  |
| Model performance | 16 | D;V | Report performance measures (with CIs) for the prediction model. |  |
| ~~Model-updating~~ | ~~17~~ | ~~V~~ | ~~If done, report the results from any modelupdating (i.e.,model specification, model performance).~~ |  |
| **Discussion** | | | | |
| Limitations | 18 | D;V | Discuss any limitations of the study (such as nonrepresentative sample, few events per predictor, missing data). |  |
| Interpretation | ~~19a~~ | ~~V~~ | ~~For validation, discuss the results with reference to performance in the development data, and any other validation data.~~ |  |
| 19b | D;V | Give an overall interpretation of the results, considering objectives, limitations, results from similar studies, and other relevant evidence. |  |
| Implications | 20 | D;V | Discuss the potential clinical use of the model and implications for future research. |  |
| **Other information** | | | | |
| Supplementary information | 21 | D;V | Provide information about the availability of supplementary resources, such as study protocol, Web calculator, and datasets. |  |
| Funding | 22 | D;V | Give the source of funding and the role of the funders for the present study. |  |

\*Items relevant only to the development of a prediction modelare denoted by D, items relating solely to a validation of a prediction model are denoted by V, and items relating to both are denoted D;V. We recommend using the TRIPOD Checklist in conjunction with the TRIPOD Explanation and Elaboration document.

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1. (APPLIED TO MY STUDY) [↑](#footnote-ref-2)