| Section                        | Item | Checklist description                                                                 | Reported on Page/Number/Line | Reported on Section/Paragraph |
|-------------------------------|------|----------------------------------------------------------------------------------------|------------------------------|------------------------------|
| **Title and abstract**        | 1    | Identify the study as developing and/or validating a multivariable prediction model, the target population, and the outcome to be predicted. | Page 1 line 2                | Title page                   |
| **Abstract**                  | 2    | Provide a summary of objectives, study design, setting, participants, sample size, predictors, outcome, statistical analysis, results, and conclusions. | Page 3 and page 4            | Abstract                      |
| **Introduction**              |      |                                                                                       |                              |                              |
| **Background and objectives** | 3a   | Explain the medical context (including whether diagnostic or prognostic) and rationale for developing or validating the multivariable prediction model, including references to existing models. | Page 5 and page 6            | Introduction                  |
|                              | 3b   | Specify the objectives, including whether the study describes the development or validation of the model or both. | Page 6 line 78-80            | Introduction                  |
| **Methods**                  |      |                                                                                       |                              |                              |
| Source of data                | 4a   | Describe the study design or source of data (e.g., randomized trial, cohort, or registry data), separately for the development and validation data sets, if applicable. | Page 7 line 84               | Methods/Study design          |
|                              | 4b   | Specify the key study dates, including start of accrual; end of accrual; and, if applicable, end of follow-up. | Page 7 line 89-90            | Methods/Patient selection    |
| Participants                  | 5a   | Specify key elements of the study setting (e.g., primary care, secondary care, general population) including number and location of centres. | Page 7 line 90               | Methods/Patient selection    |
|                              | 5b   | Describe eligibility criteria for participants.                                       | Page 7 line 89-194           | Methods/Patient selection    |
|                              | 5c   | Give details of treatments received, if relevant.                                      | NA                           | NA                           |
| Outcome                       | 6a   | Clearly define the outcome that is predicted by the prediction model, including how and when assessed. | Page 8 line 111-115          | Methods/Measurement and Definition |
|                              | 6b   | Report any actions to blind assessment of the outcome to be predicted.                 | NA                           | NA                           |
| Predictors                    | 7a   | Clearly define all predictors used in developing or validating the multivariable prediction model, including how and when they were measured. | Page 8 line 116-125          | Methods/Measurement and Definition |
|                              | 7b   | Report any actions to blind assessment of predictors for the outcome and other predictors. | NA                           | NA                           |
| Sample size                   | 8    | Explain how the study size was arrived at.                                             | Page 7 line 89-90            | Methods/Patient selection and Data collection |
| Section                  | Number | Description                                                                                                                                   | Page/Line | Other Information |
|--------------------------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------|
| Missing data             | 9      | Describe how missing data were handled (e.g., complete-case analysis, single imputation, multiple imputation) with details of any imputation method. | 7 93-94  | Methods/ Patient selection |
| Statistical analysis     | 10a    | Describe how predictors were handled in the analyses.                                                                                          | 9 134-138 | Methods/Statistical analysis |
|                          | 10b    | Specify type of model, all model-building procedures (including any predictor selection), and method for internal validation.                    | 9 132-140 | Methods/Statistical analysis |
|                          | 10d    | Specify all measures used to assess model performance and, if relevant, to compare multiple models.                                            | 9 150     | Methods/Statistical analysis |
| Risk groups              | 11     | Provide details on how risk groups were created, if done.                                                                                      | 12 185-188| Methods/Statistical analysis |
| Results                  |         |                                                                                                                                            |           |                    |
| Participants             | 13a    | 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. | 11 154-156| Results/ Demographic characteristic |
|                          | 13b    | Describe the characteristics of the participants (basic demographics, clinical features, available predictors), including the number of participants with missing data for predictors and outcome. | 11 158-171| Results/ Demographic characteristic |
| Model development        | 14a    | Specify the number of participants and outcome events in each analysis.                                                                       | 11 171-172| Results/ Development of the nonogram model |
|                          | 14b    | If done, report the unadjusted association between each candidate predictor and outcome.                                                       | NA       | NA                |
| Model specification      | 15a    | 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). | 12 177-180| Results/ Development of the nonogram model |
|                          | 15b    | Explain how to use the prediction model.                                                                                                       | 12 182-185| Results/ Development of the nonogram model |
| Model performance        | 16     | Report performance measures (with CIs) for the prediction model.                                                                                | 13 196-203| Results/Assessment and validation of the nonogram model |
| Discussion               |         |                                                                                                                                            |           |                    |
| Limitations              | 18     | Discuss any limitations of the study (such as nonrepresentative sample, few events per predictor, missing data).                               | 19 326-338| Discussion         |
| Interpretation           | 19b    | Give an overall interpretation of the results, considering objectives, limitations, and results from similar studies, and other relevant evidence. | 15 223-322| Discussion         |
| Implications             | 20     | Discuss the potential clinical use of the model and implications for future research.                                                        | 19 323-325| Discussion         |
| Other information        |         |                                                                                                                                            |           |                    |
| Supplementary information| 21     | Provide information about the availability of supplementary resources, such as study protocol, Web calculator, and data sets.                    | NA       | NA                |
| Funding                  | 22     | Give the source of funding and the role of the funders for the present study.                                                               | 22 346-347| Acknowledgments    |
