

## TRIPOD Checklist: Prediction Model Development

Section	Item	Checklist description	Reported on Page Number/Line Number	Reported on Section/Paragraph
<b>Title and abstract</b>				
Title	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 1-2	Title
Abstract	2	Provide a summary of objectives, study design, setting, participants, sample size, predictors, outcome, statistical analysis, results, and conclusions.	page 3-4 line 1-32	Abstract
<b>Introduction</b>				
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 5-6 line 38-65	Background
	3b	Specify the objectives, including whether the study describes the development or validation of the model or both.	page 6 line 66-67	Background
<b>Methods</b>				
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 6 line 71-79	Subject selection
	4b	Specify the key study dates, including start of accrual; end of accrual; and, if applicable, end of follow-up.	page 6 line 71-79	Subject 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 6 line 71-79	Subject selection
	5b	Describe eligibility criteria for participants.	page 6 line 71-79	Subject selection
	5c	Give details of treatments received, if relevant.	page 6 line 71-79	Subject selection
Outcome	6a	Clearly define the outcome that is predicted by the prediction model, including how and when assessed.	page 7 line 94-98	Follow up
	6b	Report any actions to blind assessment of the outcome to be predicted.	page 7 line 94-98	Follow up
Predictors	7a	Clearly define all predictors used in developing or validating the multivariable prediction model, including how and when they were measured.	page 7 line 81-92	Prognostic Variables
	7b	Report any actions to blind assessment of predictors for the outcome and other predictors.	page 7 line 81-92	Prognostic Variables
Sample size	8	Explain how the study size was arrived at.	page 6 line 71-79	Subject selection

Missing data	9	Describe how missing data were handled (e.g., complete-case analysis, single imputation, multiple imputation) with details of any imputation method.	page 6 line 71-79	Subject selection
Statistical analysis methods	10a	Describe how predictors were handled in the analyses.	page 7-8 line 100-114	Statistics
	10b	Specify type of model, all model-building procedures (including any predictor selection), and method for internal validation.	page 7-8 line 100-114	Statistics
	10d	Specify all measures used to assess model performance and, if relevant, to compare multiple models.	page 7-8 line 100-114	Statistics
Risk groups	11	Provide details on how risk groups were created, if done.	page 7-8 line 100-114	Statistics
<b>Results</b>				
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.	page 8-9 line 118-126	Characteristics of Patients with SIA
	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.	page 8-9 line 118-126	Characteristics of Patients with SIA
Model development	14a	Specify the number of participants and outcome events in each analysis.	page 9 line 128-140	Establishment of Prognostic Nomograms
	14b	If done, report the unadjusted association between each candidate predictor and outcome.	page 9 line 128-140	Establishment of Prognostic Nomograms
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).	page 9-11 line 142-194	Verification of Prognostic Nomograms
	15b	Explain how to use the prediction model.	page 9-11 line 142-194	Verification of Prognostic Nomograms
Model performance	16	Report performance measures (with CIs) for the prediction model.	page 9-11 line 142-194	Verification of Prognostic Nomograms
<b>Discussion</b>				
Limitations	18	Discuss any limitations of the study (such as nonrepresentative sample, few events per predictor, missing data).	page 15 line 266-271	Discussion
Interpretation	19b	Give an overall interpretation of the results, considering objectives, limitations, and results from similar studies, and other relevant evidence.	page 12-15 line 198-271	Discussion
Implications	20	Discuss the potential clinical use of the model and implications for future research.	page 12-15 line 198-271	Discussion
<b>Other information</b>				
Supplementary information	21	Provide information about the availability of supplementary resources, such as study protocol, Web calculator, and data sets.	page 16-17 line 293-310	Footnote
Funding	22	Give the source of funding and the role of the funders for the present study.	page 16 line 279-291	Acknowledgments

