

Reporting checklist (2011) of risk prediction models that include genetic variants : the GRIPS Statement¹

TITLE & ABSTRACT			Reported location ²
	1	(a) Identify the article as a study of risk prediction using genetic factors. (b) Use recommended keywords in the abstract: genetic or genomic, risk, prediction.	Page 1 & page 2 title page & introduction
INTRODUCTION			
Background and Rationale	2	Explain the scientific background and rationale for the prediction study.	Page 2-3 introduction
Objectives	3	Specify the study objectives and state the specific model(s) that is/are investigated. State if the study concerns the development of the model(s), a validation effort, or both.	Page 4 introduction
METHODS			
Study design and setting	4*	Specify the key elements of the study design and describe the setting, locations and relevant dates, including periods of recruitment, follow-up and data collection.	Page 4-5 Subjects & figure 1
Participants	5*	Describe eligibility criteria for participants, and sources and methods of selection of participants.	Page 4-5 Subjects & figure 1
Variables: definition	6*	Clearly define all participant characteristics, risk factors and outcomes. Clearly define genetic variants using a widely-used nomenclature system.	Table 1 & table 2
Variables: assessment	7*	(a) Describe sources of data and details of methods of assessment (measurement) for each variable. (b) Give a detailed description of genotyping and other laboratory methods.	Page 6-7 DNA extraction and genotyping & Statistical analyses
Variables: coding	8	(a) Describe how genetic variants were handled in the analyses. (b) Explain how other quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen, and why.	Page 5 SNP selection
Analysis: risk model construction	9	Specify the procedure and data used for the derivation of the risk model. Specify which candidate variables were initially examined or considered for inclusion in models. Include details of any variable selection procedures and other model-building issues. Specify the horizon of risk prediction (e.g., 5-year risk).	Page 5 SNP selection & Table 1
Analysis: validation	10	Specify the procedure and data used for the validation of the risk model.	Page 6-7 Statistical analyses
Analysis: missing data	11	Specify how missing data were handled.	/
Analysis: statistical methods	12	Specify all measures used for the evaluation of the risk model including, but not limited to, measures of model fit and predictive ability.	Page 6-7 Statistical analyses
Analysis: other	13	Describe all subgroups, interactions and exploratory analyses that were examined.	Page 6-7 Statistical analyses
RESULTS			
Participants	14*	Report the numbers of individuals at each stage of the study. Give reasons for non-participation at each stage. Report the number of participants not genotyped, and reasons why they were not genotyped.	/

Descriptives: population	15*	Report demographic and clinical characteristics of the study population, including risk factors used in the risk modeling.	Page 7-8 Characteristics of study subjects
Descriptives: model estimates	16	Report unadjusted associations between the variables in the risk model(s) and the outcome. Report adjusted estimates and their precision from the full risk model(s) for each variable.	Page 7 results
Risk distributions	17*	Report distributions of predicted risks and/or risk scores.	Page 7 results & Table 1
Assessment	18	Report measures of model fit and predictive ability, and any other performance measures, if pertinent.	Page 7-16 results
Validation	19	Report any validation of the risk model(s).	/
Other analyses	20	Present results of any subgroup, interaction or exploratory analyses, whenever pertinent.	Page 7-16 results
DISCUSSION			
Limitations	21	Discuss limitations and assumptions of the study, particularly those concerning study design, selection of participants, measurements and analyses, and discuss their impact on the results of the study.	Page 19 discussion
Interpretation	22	Give an overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence.	Page 16-19 discussion
Generalizability	23	Discuss the generalizability and, if pertinent, the health care relevance of the study results.	Page 19 discussion
OTHER			
Supplementary information	24	State whether databases for the analyzed data, risk models and/or protocols are or will become publicly available and if so, how they can be accessed.	Page 4-5 subjects
Funding	25	Give the source of funding and the role of the funders for the present study. State whether there are any conflicts of interest.	Page 20 funding

* Page number are based on the manuscript file named manuscript.docx.

1. Janssens AC, Ioannidis JP, van Duijn CM, et al. Strengthening the reporting of Genetic Risk Prediction Studies: the GRIPS Statement. *PLoS medicine* 2011; 8: e1000420. 2011/03/23. DOI: 10.1371/journal.pmed.1000420.