

Additional File 3

Data Charting Form

Data chart heading	Description
Author	Name of author/s
Date	Date article sourced
Title of study	Title of the article or study
Publication year	The year that the article was published
Publication type	Journal, website, conference, etc.
Study details and design (if applicable)	Type of study, empirical or review, etc.
Keywords	What keywords were present
Study sector/setting	Country/state/hospital/mortuary
Study population	Population studied with regard to demographics
Prevention cohort type	Detail whether primary prevention cohort, secondary prevention cohort or mixed cohort
Multimorbidity measure	Definition and measures of multimorbidity presented in the study, including the number of diseases, lookback period and version
Outcome	List all outcomes
Time horizon/Follow-up	Period of time
Number of events	Reported number of first cardiovascular events in the cohort
Types of data sources included	Detail the data sources
Type of risk prediction model	Type of regression model (e.g., Cox proportional hazards regression, competing risk regression)
Models compared	Describe the models compared
Adjusted hazard ratio of multimorbidity variable	Result reported in fully adjusted model
Performance metrics used	List the performance metrics used and the results reported
Assessment of adding multimorbidity variable to the CVD risk model (assessed at all or assessed sufficiently)	Incremental value of multimorbidity variable assessed (compared to reference group of established predictors without multimorbidity variable) and appropriate metrics used
Reported challenges or limitations of including the multimorbidity variable	Challenges or limitations reported with respect to applying a multimorbidity variable
Conclusion	Important aspects of the conclusion
Most significant findings	Noteworthy results of the study
Most relevant findings	Findings that contribute to the research question