More Fundamental and Practical Indices Based on the Data Analysis of NIPPON DATA 80 Might Be Needed for Clinical Settings

To the Editor:

Five years have passed since the risk assessment chart developed from NIPPON DATA80 was released. There is no doubt that it is an innovative tool, corresponding to the Framingham Score, that can be applied to Japanese people. However, we occasionally face some problems when we apply it in the clinical setting.

The risk assessment chart is a model that assesses risk by estimating the probability of death from cardiovascular disease based on various risk factors. The chart does not involve complex calculations and includes 6 color-coded ranks, thus providing a quick reference in the clinical setting. The range in which values can be extrapolated is indicated, thereby obviating the risk of extrapolating extreme values that is associated with formulas. At this point this chart can be an innovative tool.

However, in clinical studies, model formulas are more useful than charts in some cases. For example, the various probabilities of death are conventionally calculated as continuous values, which in a 6-rank system would be converted to discrete classes and become less precise. When calculating the number-needed-to-treat from the absolute mortality rate, the certainty of values would be reduced by the width of the ranks. In addition, in today’s highly computerized environment, formulas may be easier to use than charts when analyzing many patients at once.

Because the study did not specify the $\beta$ value for each risk factor or the total mortality rate in each population based on the Cox proportional hazards model, the reader is unable to calculate and reproduce the probability of death in each population. If these values were shown, the degree of the effect of each risk factor could be assessed. Moreover, as the goodness-of-fit of this model was not described, its level of explanation cannot be inferred.

Based on this, we believe it would be useful to release more fundamental and practical indices about this chart, as with the Framingham Score.

References


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