

Letter to the Editor

Vascular Age Derived From SCORE and the European Guidelines on Cardiovascular Disease Prevention in Clinical Practice (Version 2012)**Edad vascular derivada del SCORE y Guía europea sobre prevención de la enfermedad cardiovascular en la práctica clínica (versión 2012)****To the Editor,**

Recently, *Revista Española de Cardiología* published a special article entitled “Guía europea sobre prevención de la enfermedad cardiovascular en la práctica clínica (versión 2012)”¹ which was translated from the original (“European Guidelines on Cardiovascular Disease Prevention in Clinical Practice [Version 2012]”), published by the European Heart Journal. As in previous versions, these guidelines tackle the problem of young subjects with high levels of several cardiovascular risk factors. Although this population has a low absolute cardiovascular risk, their relative risk is high and therefore they should receive more intense therapeutic measures. The novelty of these guidelines is that they approach this problem using the vascular age (VA) calculation.

The concept of VA, or heart age, was introduced by D’Agostino et al.,² who established that the VA of a person is equal to the age of an individual with the same estimated cardiovascular risk, but whose risk factors are all within normal range. These authors published VA tables derived from the new general cardiovascular risk tables obtained from the Framingham study.

In 2010, the first VA tables based on the SCORE³ project were published. These VA tables had the same format of colored boxes as the SCORE absolute risk tables, but with the number corresponding to the VA within each box. Thus, in the same tables there was information corresponding to the absolute risk (according to the color of the box) and the VA (number in the box). This publication also showed that, unlike the absolute risk, it is not necessary to calibrate the VA.

The new guidelines¹ present a visual method for estimating VA with the absolute risk tables from the SCORE project, and one can see at what age a certain risk level is reached when the factors are controlled. This method has the limitation that it is only valid for an absolute risk up to 2% in women and 4% in men, and a VA up to 65 years. In contrast, the specific SCORE tables for VA published in 2010 are useful for the entire spectrum of absolute risk appearing in the SCORE tables. It is surprising that the guidelines recommend use of the HeartScore software to perform the same calculation as the SCORE VA tables but do not mention these tables, which had been published previously in

the same original journal. After publication of the SCORE VA tables in 2010, some of the authors of the guidelines published other VA tables based on a different mathematical model and derived exclusively from the SCORE Finnish cohort⁴; HeartScore uses these tables.

Joint use of the SCORE VA tables published in 2010³ and the European guidelines would constitute an advance in the management of these patients, especially in the extreme age groups. It would enable the patients’ risk status to be communicated in terms that are intelligible to them, and this will lead to a better understanding of the indications for drug treatments and lifestyle changes. In the European guidelines, adherence to treatment is another aspect considered, and deficient adherence is attributed to multifactorial causes. Among the reasons for deficient adherence are poor communication—which can be complex, insufficient or confusing—and, on the patients’ part, a lack of motivation or their young age.

The VA concept simplifies communication of the patient’s risk status and therefore could improve adherence. It shows patients how many years they can gain or lose depending on whether or not they control their risk factors. Therefore, it is a very useful tool for managing patients, especially younger ones. Nonetheless, there are currently no guidelines indicating goals and treatments based on the relative risk values or on the VA.

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