Clinical utility of the integration of Life Simple 7 designed by the American Heart Association and the model for cardiovascular risk prediction IberScore

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On behalf: Ibermutua CArdiovascular RIsk Assessment study

Topic(s):
Risk Factors and Prevention – Cardiovascular Risk Assessment

Citation:

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Background/Introduction:
Practice guidelines are agreed on the importance of lifestyle advice for cardiovascular risk reduction as well as cardiovascular risk prediction in planning preventive strategies.

Purpose
To assess the clinical usefulness of the application of the predictive model of cardiovascular risk (CVR) IberScore combined with the recommendations of ’Life’s Simple 7’ (LS7) of the American Heart Association (AHA) in a working population.

Methods
IberScore model is a predictive function for fatal and non-fatal cardiovascular (CV) events derived from a cohort of 774,404 workers (70.4% of the target population) between 16-65 years (average of 35.7 (SD = 10.7)) without CV disease at admission, which was followed for a period of 10 years. Age, sex, total cholesterol, HDL, SBP, glycemia, obesity and a history of dyslipidemia, hypertension and diabetes were used as factors of CVR. Using this model, patients were classified into 4 risk levels. It was also assessed the ideal health status according to the recommendations of ”Life’s Simple 7” (which includes healthy diet, physical activity, smoking cessation, BMI <25 kg/m2, total cholesterol without treatment <200mg/dl, blood pressure without treatment <120/80 mmHg and basal glycemia <100 mg/dl). Finally, these classifications were compared with the appearance of CV events in a 10-year follow-up.

Results
The results showed a high sensitivity (given that the predictive capacity reached 82% of the cardiovascular events) by using the IberScore, a logistic flexible parametric model to predict 10-year cardiovascular risk. Likewise, the clinical usefulness of the ”Life’s Simple 7” recommendations could be verified in order to reduce the incidence of total CV events (fatal and non-fatal).

Conclusions
The integration of the predictive model IberScore with the preventive recommendations ”Life’s simple 7” of the AHA applied to the working population would allow a more efficient cardiovascular prevention.
Abstract: P3403
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