

Poster

Food in the fight against cardiovascular disease



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ABSTRACT

Motivation: Stroke is the second cause of death in Spain, affecting 120,000 people every year and therefore causing great impact at an individual, family and social level. However, 90% of cases can be prevented. There is currently no clear specific pharmacological treatment for the primary prevention of ICTUS, as a consequence the fight against this disease focuses on controlling modifiable risk factors and triggering causes through healthy lifestyle habits. The main objective of this work is to develop software capable of calculating the cardiovascular risk for a person between 40 and 65 years old, based on the parameters used at the doctor's office for the same purpose, as well as evaluating the level of knowledge of the disease amongst the population.

Methods: For the development of the software a System-On-Chip (SOC), whose programming language is based on C++, has been used. In addition, the application is based on the SCORE cardiovascular risk table for low-risk countries such as Spain. Finally, in order to assess the level of knowledge of the disease, surveys have been carried out within interviewees aged approximately between 13 and 65 using Google forms.

Results: A portable prototype called ALIC v.0 has been designed and built to calculate cardiovascular risk by entering the necessary parameters such as sex, smoking habit, age, blood pressure and cholesterol levels. In addition, it makes nutritional and healthy habit recommendations according to the patient's profile. Regarding the survey, more than 250 people have been surveyed, most of them being between 13 and 30 years old and having a high degree of education.

Conclusions: ALIC v.0 is a pioneering prototype capable of calculating cardiovascular risk and whose programming is easy to adapt with the aim of allowing its future and continuous improvement. The portability of ALIC makes its use at the doctor's office or in the patient's own home possible, thing which is useful in order to keep track of the patient by sending the data to the doctor. Concerning the survey, almost all of the respondents think that they don't have enough information about ICTUS but they consider it to be a disease of great concern and with serious aftereffects, which has a high mortality rate.

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