CLINICAL DECISION SUPPORT SYSTEM FOR TYPE 1 DIABETIC PATIENTS FOR LOW SOCIAL STATUS IN COLOMBIA

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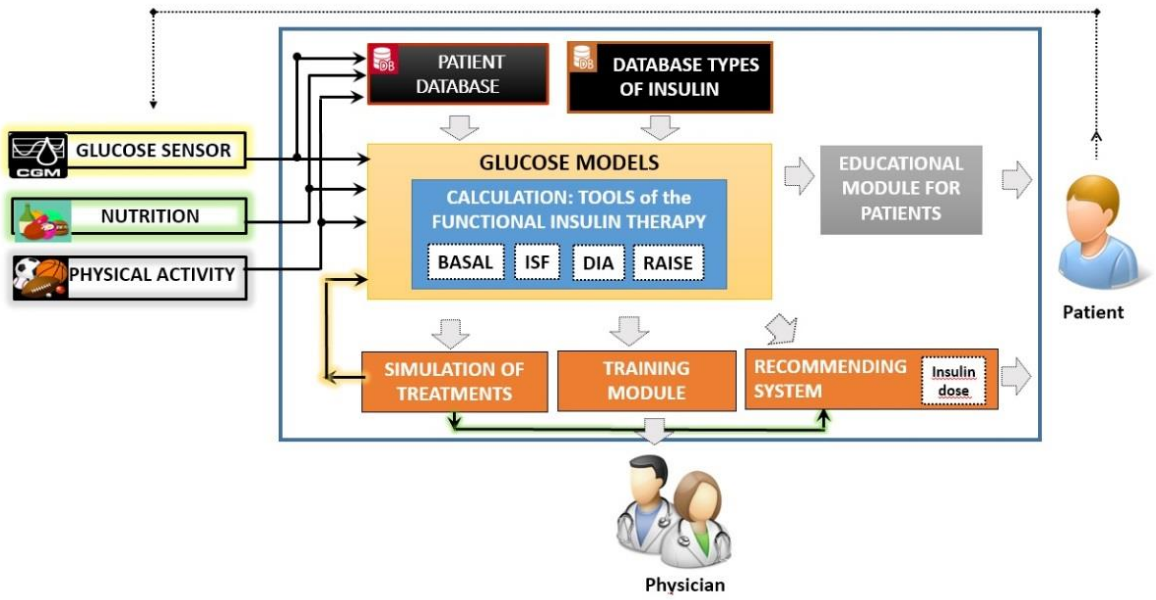
ABSTRACT

In many countries, the medical sector has joined forces with the technological field in order to produce devices that facilitate health monitoring and diabetes management. However, in Colombia, there is not a system collecting and reviewing daily data of diabetic patients, especially for low social status patients who do not have access to pump systems but may have internet facilities. Our goal is to develop an affordable technological alternative for most people with diabetes who use insulin, but focused on low social status.



METHODS

The proposed system will support the decision of the patients to administer insulin. The system will collect data from: the glucose sensor, a nutrition application (count of carbohydrates), and from a physical activity subsystem. Based on the registered data and personalized models, the software will calculate the tools of the functional insulin therapy, and then will propose an insulin dose. Once the patient takes the suggested dose, that will be also registered. Other interesting included subsystem is an educational module for patients, in which, they will have their personalized information to understand their blood glucose behavior simulating different types of inputs. The information collected will be saved on internet server and the physician will be able to review the patient data at any time. For the physicians, it is envisioned a module to train inexperienced doctors.

RESULTS

A clinical protocol has been initiated to collect the necessary information to generate the personalized models. The study with the software will start in 2018.

CONCLUSIONS

The results and conclusions will be reported in 2018-19.