DIABETIC RETINOPATHY DIAGNOSIS AND SCREENING FROM EYE FUNDUS IMAGES

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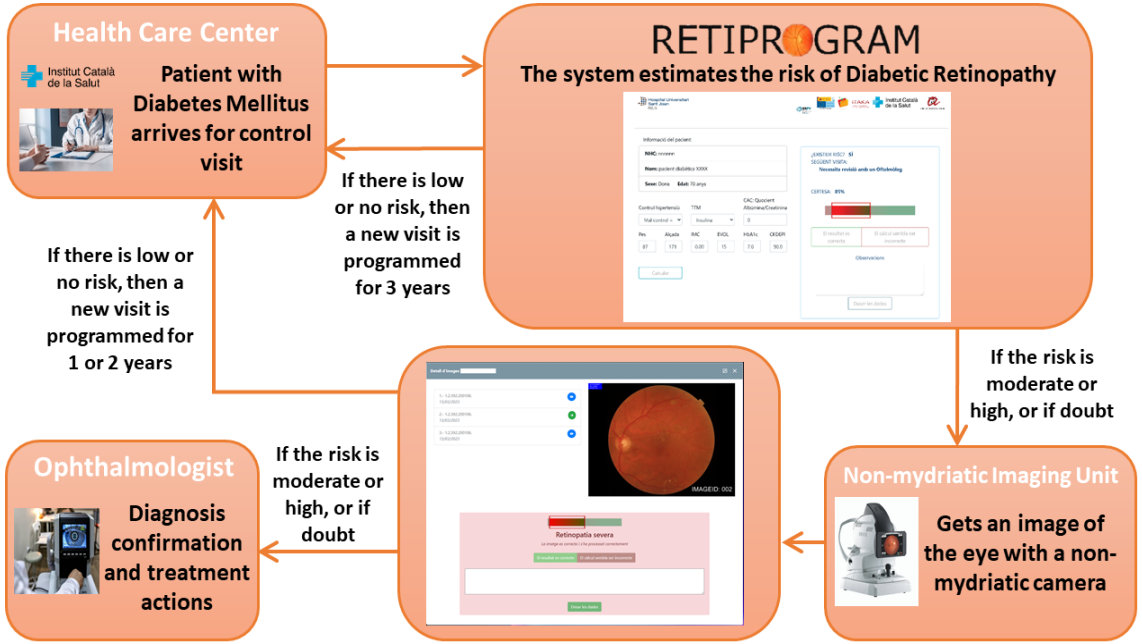
https://deim.urv.cat/~itaka/retiprogram

Background:

Diabetes Mellitus affects 382 million people worldwide, projected to increase. Diabetic Retinopathy is one of the leading causes of blindless in young adults. Early detection of the first signs of this disease may improve the treatment and the probability of progression of the disease to critical stages.
At the moment, doctors can only perform a screening test using non-mydriatic Fundus cameras once every 2 years, this frequency is to large for people who is developing the disease, and it is unnecessary for the majority of diabetic people, who will not develop it (~80%).

Proposal:

We are developing a computerized system that, first, makes an estimation of the risk of developing Diabetic Retinopathy from clinical data from primary care services. Second, if there is some risk, it is able to automatically read and analyze the eye fundus image to adjust the prediction of the disease.



OBJECTIVE: Develop a clinical support system for early diabetic retinopathy detection

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ITAKA Intelligent Technologies for Advanced Knowledge Acquisition
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Instituto de Salud Carlos III
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