Design of an E-Health platform using artificial intelligence technologies for the surveillance and prevention of patients with cardiovascular diseases against covid19

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Introduction

Covid-19 disease is caused by SARS-CoV-2.The symptomatology is variable, it can range from a common cold to a severe acute respiratory distress. Severe forms are mainly seen in patients with cardio vascular disease, they are at very high risk of mortality. The aim of our project is to design and producean E-Health platform to enable telemedicine acts such as telemonitoring and assistance of patients with cardio vascular disease to prevent covid 19 infection

Materials and methods

It is an e-health platform that uses digital technologies associated with artificial intelligence to provide remote monitoring and assistance to patients; It consists of two parts: the acquisition of patient data, a gateway and a central system. Acquisition of patient data by sensors equipped with a wireless data transmission device allowing the recovery of patient health indices such as heart rate, respiratory rate ..., a mobile application which allows to acquire data emitted by the sensors placed on the patient, which includes an AI module that analyzes the data in real time in order to send alerts to the patient Expected results

Through telemedicine, patients with cardiac diseases will be under continuous monitoring of hemodynamic parameters: Temperature, Arterial oxygen saturation, Heart Rate, Blood Pressure, Electrocardiogram ...,,these data will be processed by an AI module which will analyze the results and will detect anomalies. The latter will give recommendations and immediately alert the patient

Conclusion: Telemedicine is a new and innovative concept, it will improve the health care and will have a great socio-economic impact on bothpatient andhealth services. it"s can help to fight against Covid 19 infection.