

Point of Care Device for Measurement and Analysis of Vital Parameters

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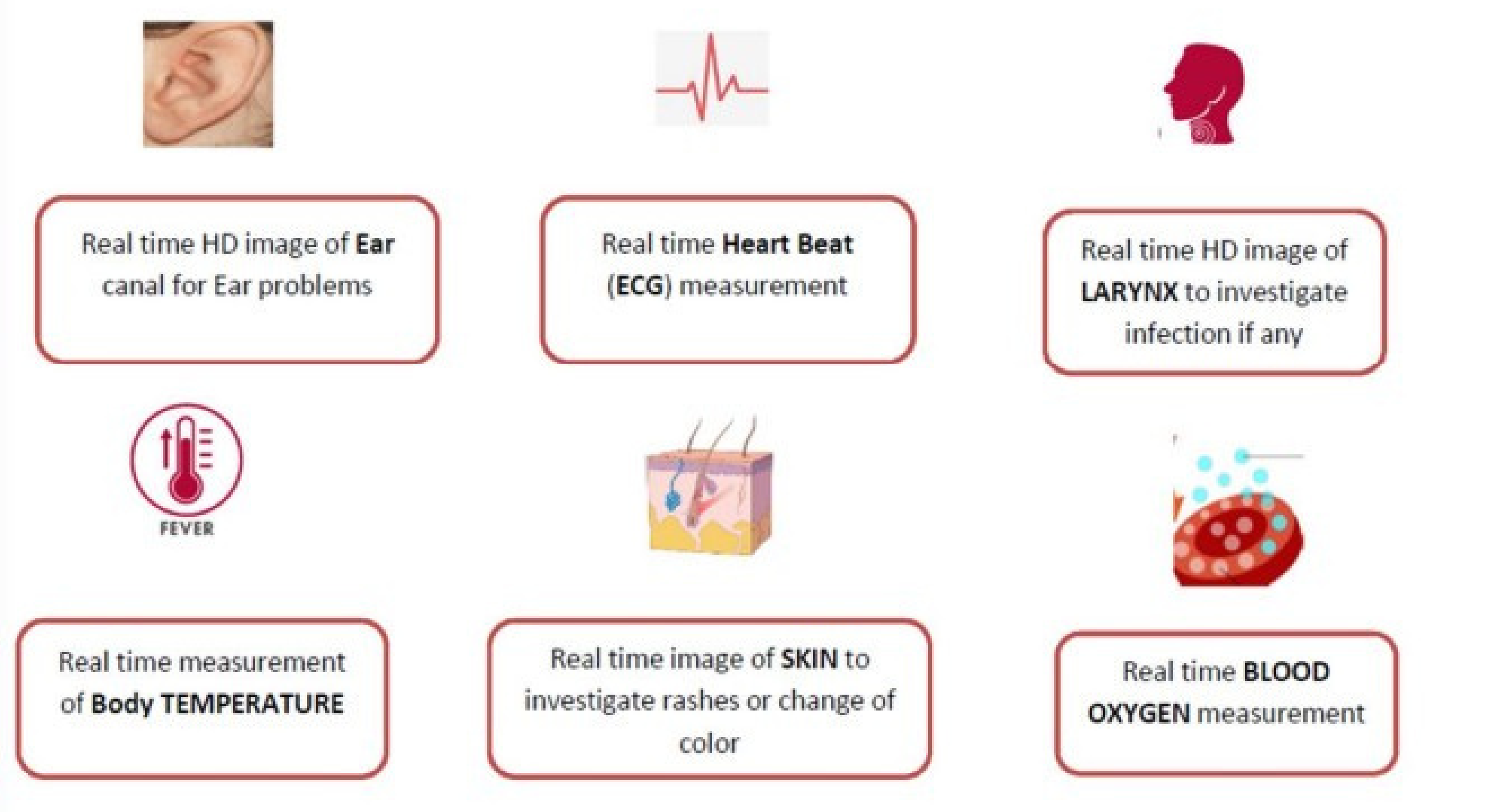
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Interdisciplinary Project

Introduction

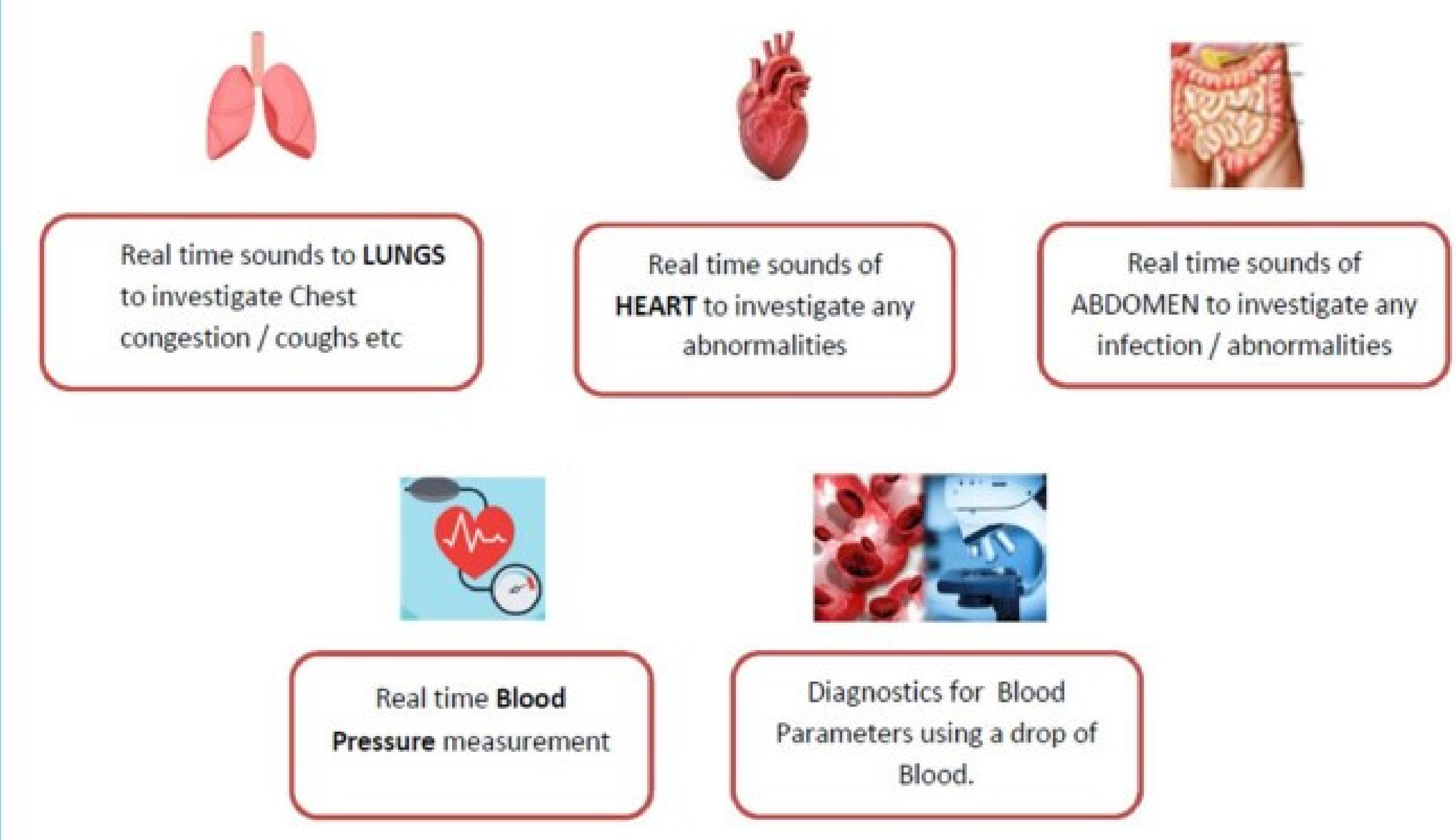
Statistics says over 25% to 50% deaths worldwide are caused by CVD (CardioVascular Diseases). Estimated 17.9 million people died due to CVD in the year 2019. Many such cases get detected in the by the medical professionals in their early stages, saving patient's life. However, there are many small geographical areas like small towns, villages, etc where the medical assistance are difficult to reach. Since we cannot deploy Doctors to every area of earth, we are proposing an idea of a Point of Care device hence connect Patients to the best Medical Professionals they need.

The Point of care Device will be able to deliver clinical outcome at minimum cost as compared to standard medical test procedures. Also it will be very safe and simple to use by the patients. This is a non invasive type of device which will not cause any pain or discomfort to the patient and hence more acceptable. Once the proof of concept is established on a limited set of human beings, this will lay the ground for a clinical trails on a larger set of human beings. This will also be a requirement by the regulatory body.

PHASE I



PHASE II



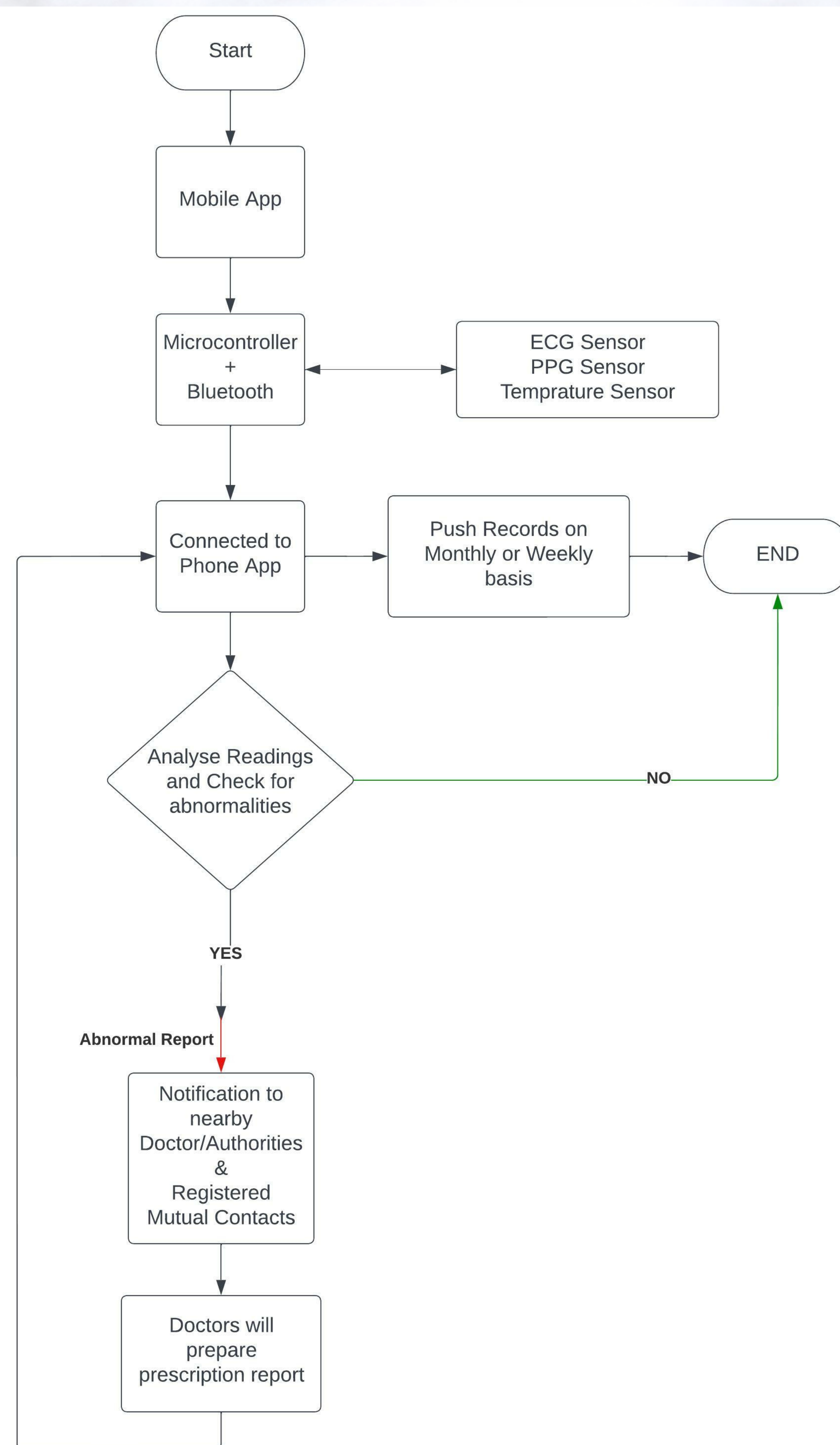
Process Flow

The Proposed Device is centred around a dedicated micro-controller which will be able to acquire the Analog signals ,

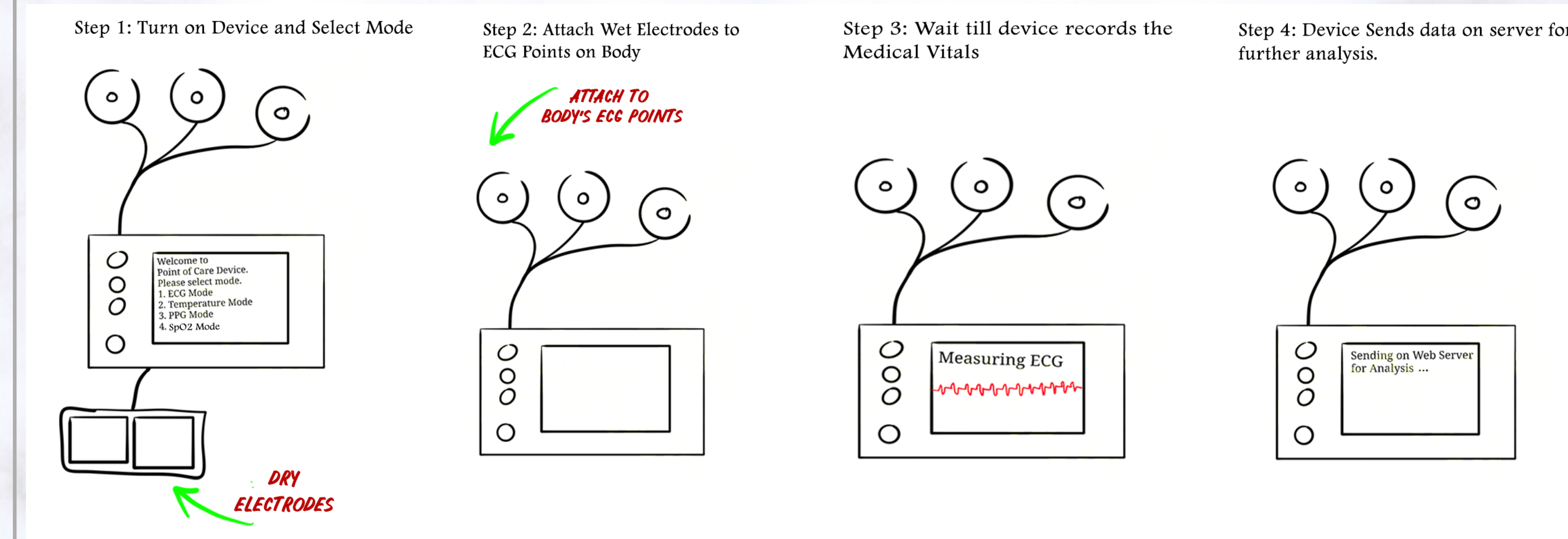
Convert them into Digital data and through use of the algorithm.

AI process the same to give digital outputs as per the medical templates required.

Since the microprocessor and other components are mass produced the reliability and repeatability in the devices is assured



Proposed System / Solution Implementation



The Proposed Device is centred around a dedicated micro processor which will be able to acquire the Analog signals ,

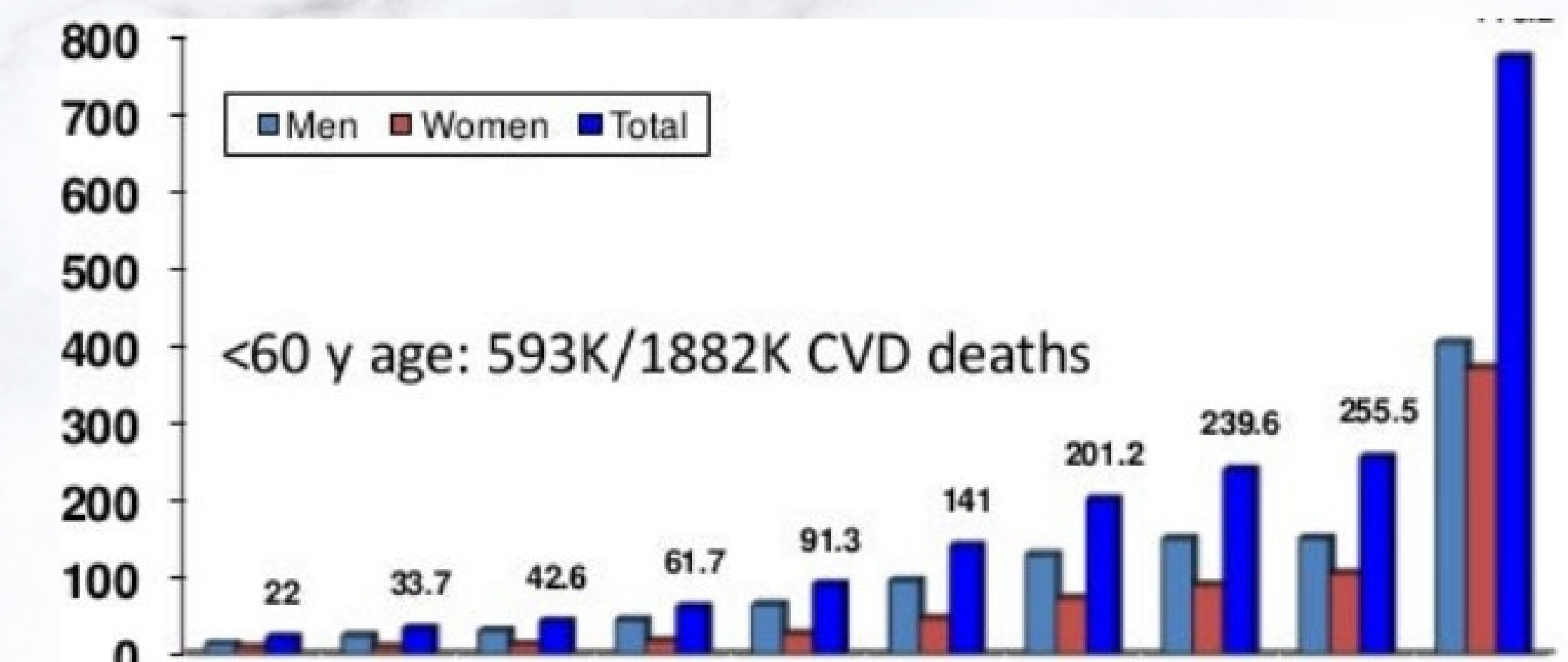
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Conclusion

With the proposed device a person doesn't require to visit hospital and can eventually test for the required parameters using wearable medical device at home. Wearable medical device can provide regular records of these tests to doctors. The complete system is user friendly and easy to use. With the advances in this wearable medical device, we can help many patients by saving their time and money, along with connecting them with doctors remotely.



References

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