Cardioskin: A 15-lead Connected Wearable ECG To Improve Clinical Trial Data Collection and Contribute to e-Patient Journey

Devices

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TITLE

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PURPOSE

Medical devices through mobile platforms and web-based information systems constitute a growing field that expands very rapidly in different health contexts. In particular, wearable devices hold the promise to greatly improve the efficacy of clinical trials.

The main goal of this project is to provide sponsors and investigators with a high quality system that enables long-term, ambulatory recordings of electrophysiological parameters in the context of cardiological disorders. This allows to carry out clinical trials supported by real world data collected in the daily life of subjects.

METHOD

Cardioskin is a non-invasive medical device that enables monitoring cardiovascular and actimetry parameters for clinical development, diagnostic or tele-monitoring purposes, from a few hours to several weeks.

Cardioskin is a comfortable, innovative textile that integrates a 15-lead ECG device connected to a secured, Cloud-based analysis platform. In addition, a smartphone App is designed to collect or communicate information from the patient, and controls the 15-lead ECG device depending on the use case.

For clinical development purposes, the Cardioskin solution offers:

- Continuous, long-term recording with wireless transmission and fast, computer-intensive analysis of ECG data
- Physiological data measured in real life environment
- Infrastructure to ease data management for large cohorts and multi-site trials, to accelerate data
crunching and patient population clustering
- Interoperability to move faster from Patient inclusion to Results

RESULTS AND CONCLUSIONS

Cardioskin platform is adaptable and can be optimized to meet Clinical Trials specificities, in order to fit to the e-patient journey. The combination with the recording of patients’ environmental data could unlock the potential of better targeting patient population, or understanding side effects.