New real-time monitoring sensor for for mild Covid-19 patients using iPad

Real-time remote monitoring of hundreds of COVID-19 patients without body contacting.

Liquid Design Systems, Inc. (2-3-4 Shin-Yokohama, Kohoku-ku, Yokohama, C.E.O. Naoya Toyama, hereinafter NK) has developed and launched "Kaigo (means Nursing) log Med." that can remotely monitor respiration and heart rate during sleep of patients with mild patients in hospitals and nursing facilities.

This product, for example, contributes to the infection risk of doctors and nurses who are burdened by the effect of the new coronavirus (COVID-19), and the work burden such as night work. This system is a cloud system that uses vital sensor and iPad to remotely monitor the respiration/heart rate of many patients simultaneously in real time.

This commercialization is one of products of the "Agreement on joint research and development with Nihon Kohden, a non-body contact IoT bed sensor for hospitals/medical care" announced on October 29, 2019.

Nihon Kohden Corporation (hereinafter NK) has adopted our non body contacting vital sensor as one of themes of the FY2020 "Development of technology for countermeasures against infectious diseases such as Covid-19" funded by the Japan AMED(Agency for Medical Research and Development).

This project is a theme called "Research on feasibility verification and optimization of remote management system for people with mild COVID-19 infection, aiming at reducing infection risk of medical staff". We build and operate a remote management system using this sensor for people with mild COVID-19 infection in hospitals and hotels.

The product co-developed by LDS and NK under AMED funding is a remote vital monitoring system for people

with mild COVID-19 infection using a vital sensor and cloud system. Real-time remote monitoring of respiration and heart rate of more than 200 patients.

The new product announced this time is a product that can be used with the Vital sensor alone, separated from the dedicated cloud for mild Covid-19 patients. The product name is "Kaigo(means Nursing) log Med.", which is a versatile product that can be linked to other cloud systems by using the iPad.

The main features of "Kaigo log Med." are as follows.

1. <u>Visualize the physical condition of the patient remotely by linking with the monitoring cloud system.</u>
The dedicated terminal (iPad) itself acts as a monitor and a communication gateway with the cloud. In the facility, iPad does not require the nurse to directly check the patient's respiration, the Kaigo log Med. allows you to check the respiration/heart rate during sleep on the iPad screen. Outside the room, with a cloud system, the same information displayed on the PC. This can be simultaneously monitored and recorded on the PC for respiration/heart rate of hundreds of patients. This will reduce the risk of infection for medical staffs and the work burden such as night check by nurses.

2. Can be used as a single sensor without a cloud

Kaigo Log Med. uses unique vital sensor technology to monitor respiration and heart rate without contacting the sleeping patient's body. When there is a significant change in respiration, the body itself will notify the nearby nurse and doctor with an LED and alert sound.

3. Sensor mat that can be simply installed under the mattress

The dedicated sensor mat required for the vital monitor can be installed simply by laying it under the mattress. It can be used not only on a mattress but also under a futon for vital monitoring, so it can be used in hospitals, nursing homes, and homes.

4. Users can use without IT expertise

With the know-how developed for the baby sensor, it is possible to set the sensitivity of the sensor using an iPad, check current and past data of respiration /heart rate, and connect to the cloud. The GUI is so easy to understand that it can be used by doctors, nurses, and caregivers who are not familiar with IT.

■**Product overview of "Kaigo log Med."**

The combination of the sensor of "Kaigo log Med." and an iPad (option) that incorporates a dedicated application.

Product name: Kaigo log Med.

Medical equipment (Japan): General medical equipment (Class I)

Certification number: 13B1X10220000023

Set contents: Sensor body, dedicated sensor mat, AC adapter, user manual, warranty card 1 each

Optional: Dedicated iPad (Installs Logger application and gateway communication application that monitor and record vital movements in a graph)

■**Suggested retail price** : Price is available in Japan, outside of Japan, please contact to our sales team.

Kaigo log Med.　Main unit USD1,200 (excluding tax)

Dedicated iPad 　1 set USD1,000 (excluding tax)

■**About sales**

Release date: October 2020〜

Kaigo log Med.　Complete set

Option: Dedicated iPad with vital monitor and gateway applications

Contact: sales@liquiddesign.co.jp

■ **About Liquid Design Systems, Inc.**

Established in 2008. We are a technology venture company that develops products using our own vital sensor, provides technology licenses, and sells OEM/ODM.　LDS is developing IoT products that that can records and analyzes sleep with the vital sensor from infants to adults, and elderly people as well.　In addition to these vital products like IBUKI, Baby Ai, Baby Ai Med., now we have commercialized many healthcare applications such as, IBUKI NAP, Napplee, and Nurse Napplee and so on.

Next few years, we will develop new sensor products such as sleep sensors, snoring sensors, and excretion sensors for medical and nursing care use.

URL: https://liquiddesign.co.jp