



MultiSense®

WEARABLE PATIENT MONITORING SOLUTION

Continuous monitoring of vital signs
for patients in non critical-care settings,
in the hospital or at home.



CE 0477

"MultiSense® PRODUCT", which includes the MultiSense® Platform and the MultiSense® Patch, is a class IIa medical device.

 **RDS**
Advancing Patient Pathways™

Advancing Patient Pathways™ through Wireless Monitoring of Vital Signs.

Wireless vital sign monitoring is a transformative approach to healthcare. It leverages advanced technology and medical devices to track a patient's physiological parameters from a distance, whether they are in a hospital, or other healthcare facility, or in the comfort of their own home.

This encompasses the following applications :



Benefits of Wireless Vital Sign Monitoring



Wireless, continuous monitoring of relevant physiological parameters contributes to enhance patient surveillance within healthcare facilities or at home, and brings several significant benefits to the forefront:

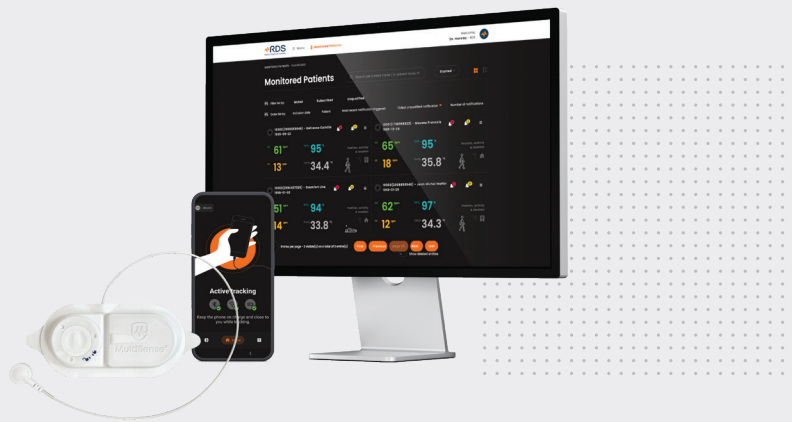
- ✧ Lower risks of complications ¹
- ✧ Lower risks of mortality ²
- ✧ Lower risks of transfer to ICU ^{1,2,6,7}
- ✧ Reduction in the average length of hospital stay ^{2,3,4}
- ✧ Optimization of nursing time and manual tasks ⁵
- ✧ Higher patient quality of life ⁸

1 • SC Verrillo et al., J Nurs Care Qual, 2019
 2 • Lin Sun et al., J R Soc Med, 2020
 3 • Stellpflug et al, Am J Nurs, 2021
 4 • Downey et al, Int J Nurs Stud, 2018
 5 • Bellomo et al, Crit Care Med, 2012
 6 • Eddahchouri et al, Br J Anaesth, 2022
 7 • Weller et al, J Clin Monit Comput, 2018
 8 • Hoffman et al., J Surg Res, 2014

MultiSense®: Comprehensive Wireless Vital Sign Monitoring Solution

MultiSense® is a comprehensive patient monitoring solution that combines a wearable monitor in the form of a patch with a secured cloud platform. The MultiSense® patch is designed to capture patients' physiological parameters with a clinical

accuracy equivalent to a bedside monitor. The MultiSense® platform enables healthcare professionals to access monitoring data as part of their remote patient monitoring programs.



1

WEARABLE PATCH

Wearable adhesive monitor that provides real-time and continuous capture of six key patient physiological parameters with a clinical accuracy equivalent to a bedside monitor.

2

SECURE CLOUD PLATFORM

Remote surveillance of patients equipped with the MultiSense® patch by healthcare professionals (data visualization, notifications, etc.)

3

SERVICES

Including: Patient information, logistical support, onboarding & configuration services, customer success programs.

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Extended & Validated Monitoring Capabilities

MultiSense® provides continuous, clinical-grade remote monitoring for 6 physiological parameters: Heart rate, respiratory rate, oxygen saturation, skin temperature, activity level and body posture.

Other parameters such as blood pressure are currently under development.

The MultiSense® solution has been validated in six clinical investigations.

MultiSense® Patch: 25g of Technology Concentrate

The MultiSense® patch is a lightweight wearable device that ensures continuous data capture for physiological parameters with clinical-grade accuracy, and with a validated autonomy of 5 days.

5 miniaturized
sensors:

ECG

PPG

Temperature

Piezoelectric

Accelerometer



Patented
adhesive layer

Validated
autonomy of 5 days

Water-resistant
design

Lightweight
& comfortable

UPPER-BACK POSITIONING

The MultiSense® patch is positioned on the upper part of the patient's back, which helps mitigate measurement variations due to morphology and increase patient comfort and compliance during surveillance.



MultiSense® Cloud Platform: Facilitating Remote Vital Sign Monitoring through a User-Friendly, Secured Cloud Service

The MultiSense® cloud platform is a secure web-based interface that empowers healthcare professionals to streamline patient surveillance for physiological parameters remotely. This encompasses a large range of user-friendly features to explore patient monitoring data, including:

Patients' dashboards

Real-time visualization of a patient's physiological parameters

Patient history visualization enabling trend analysis

Configurable notifications, including individualized thresholds per patient

Technical monitoring, including battery control
& technical notifications



The MultiSense® cloud platform is a GDPR-compliant solution and is hosted by a certified HDS

MultiSense® Kit: Easy-to-Use & Reusable

The MultiSense® patch is delivered as a “ready-to-use” kit that contains all the material required for attaching the patch on the patient.

The kit also contains a dedicated smartphone, ensuring continuous connection between the patch and the secure MultiSense® web platform, whether the patient is being monitored in a healthcare facility or at home. The kit makes it very easy for any healthcare professional to set-up a MultiSense® patch.

Sustainable development has been key in the design of MultiSense®: RDS collects the kits back after utilization, which are then cleaned and refurbished before being reused, allowing to minimize the carbon footprint of the solution.



Pathway Example: Early Hospital Discharge Protocol with MultiSense®



Support & Services

RDS has designed turnkey services to support the successful implementation of novel ways to monitor patients' physiological parameters in the hospital and beyond.

Our team is also capable of providing customized services adapted to each one's organization and situation.



- ▢ Solution design
- ▢ Configuration services
- ▢ Onboarding & training
- ▢ Customer success programs
- ▢ Logistics

About RDS

RDS combines best-in-class biosensor technologies with the latest developments in digital and predictive medicine, and brings to life the next generation of Patient Monitoring Solutions.

Our mission: Empowering healthcare professionals to build improved patient pathways, that result in higher quality of life

and care efficiencies, and help make healthcare systems more attractive and sustainable.

RDS relies on a talented international team and has received numerous accolades, including the i-Lab prize in 2020, the Grand Prix de l'Académie des Technologies in 2022 and the i-Nov award in 2023.

The company was founded in 2020 and is based in Strasbourg, France. RDS is incubated at SEMIA/Quest for Health and is part of the Future4Care accelerator program.

At RDS, we all share the same passion: Bringing patient pathways to the next level!

Partners





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MultiSense® PRODUCT is a class IIa medical device that is used in the MultiSense® KIT for remote measurement of clinical data, designed to facilitate patient monitoring and improve patient quality of life in non-critical care settings, at home or in a care center. This medical device is a regulated healthcare product that bears the CE mark (Notified body: Eurofins Product Testing Italy S.r.l., n°0477). MultiSense® PRODUCT is manufactured and marketed by RDS SAS. MultiSense® KIT is an assembly of medical devices. Please refer to the assembly leaflet or medical device user manuals for further information.

