

ACCORDIX

System for Physical Training under Physician Supervision



Wide application area:
rehabilitation of patients with
cardiovascular diseases, remote
diagnosis and ECG control,
real-time telemetry and 24-hour
ECG monitoring



Real-time monitoring and diagnosis
of arrhythmias, conduction problems
and myocardial ischemia



Precise electrode positioning due
to unique fastening system



Absolute patient freedom and
a variety of physical activities



Intuitive user-friendly interface of
the physician portal and mobile
patient application

ECG



Neurosoft

Rehabilitation of Cardiovascular Patients Based on Remote Real-Time ECG Control is a Breakthrough!

Different use scenarios of Accordix can be applied in accordance with the physician's goal and patient's needs:

- A rehabilitation course can include a number of consecutive training sessions for cardiovascular patients.
- A rehabilitation course can include a number of training sessions for patients with different somatic diseases.
- Real-time telemetry – ideal way to estimate the functional status of a sportsman during a training session.
- Long-term 24-hour (Holter) ECG monitoring in an outpatient setting.
- 12-channel ECG recording can be transmitted by the Internet.
- Remote real-time interpretation is ensured.



Accordix System for Remote Real-Time ECG Control Is Based on our Up-to-Date Technologies and Products

1

CR-2 2-channel ECG recorder *

A lightweight, compact and easy-to-use 2-channel ECG recorder is designed to monitor ECG, respiratory rate, walking pace and body position during exercise.

- Wireless data transfer to a smartphone via Bluetooth
- One button to control 2-channel ECG recorder

** Poly-Spectrum-8/EX 12-channel ECG recorder can be also used*

2

Special electrode system

- Multiple use by one patient
- Individual patient parameters and anatomical features are considered when applying the electrode system
- After the physician adjusts the electrode system, the patient can use it repeatedly at home without the specialist's assistance
- Compatibility of the electrode system with CR-2 ECG recorder (for Poly-Spectrum-8/EX disposable electrodes are used)

3

Smartphone with installed application

- Easy-to-use application thanks to minimum buttons
- The possibility to use any Android smartphone
- Constant connection with the physician portal via the Internet
- Automatic real-time ECG analysis and guaranteed exam data storage in the cloud database
- Automatic synchronization of all changes with the physician portal: training plan, heart rate range and data analysis parameters

4

Physician portal

- All recordings are stored in the cloud database
- Free access to the portal via the Internet anywhere all over the globe
- The specialist can change, add and manage the training course details remotely
- The specialist can view and analyze all training data at any time

Rehabilitation

Confidence for the patient,
control for the physician



ECG recorder



Application

An enormous amount of patients with cardiovascular disease or those after coronary surgery require physical rehabilitation and training with estimated loads.

However, training administration and visits of a physician may entail great difficulties such as logistic problems, overloaded working timetable, low motivation, depression and anxiety problems, etc.

We offer Accordix – the system for rehabilitation of cardiovascular patients with remote real-time ECG control. This system allows increasing the availability of medical care, which is especially relevant for distant areas.

The system is exceptionally simple, and any patient can apply the electrodes themselves thanks to the electrode system particularly adjusted by the physician for the patient to use it further on without assistance.

The included 2-channel ECG recorder allows detecting the whole range of abnormalities: cardiac rhythm, extrasystoles, atrial fibrillation, heart blocks, etc.

Real-time data exchange provides a physician with the information needed to increase certainty in patient safety.



Physician
portal



Cloud/
Server





Real-Time Telemetry

Assistance on the way to the sports achievements

Accordix allows estimating the functional status of the sportsmen during training. The physician can observe the slight changes of physiological parameters and determine the permitted ranges to control the load and training intensity. This individual approach can be used by a coach and a physician to achieve the highest possible results and eliminate injury.

The following key parameters can be estimated using the system:



Walking pace



ECG



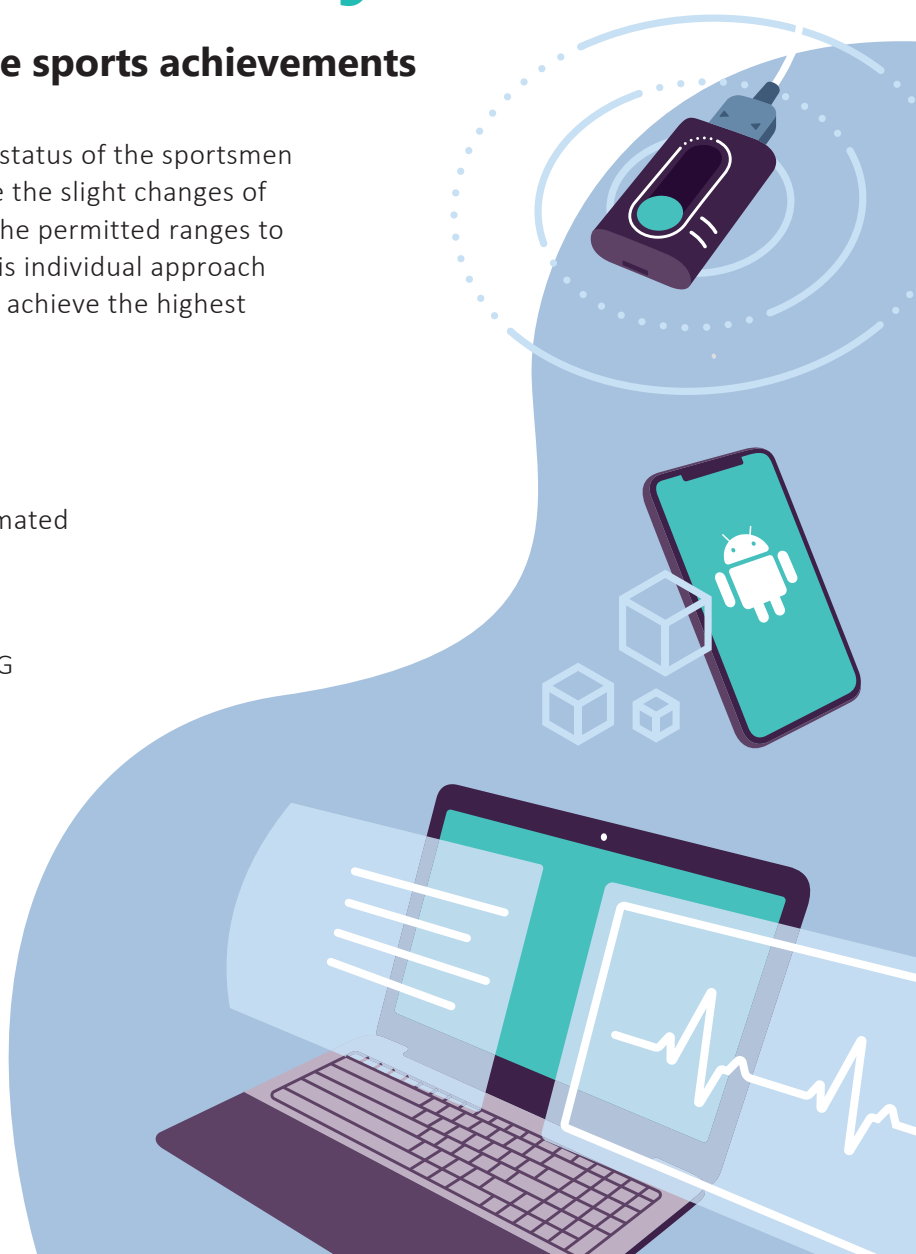
Body position



HR



Respiratory rate



24-hour Ambulatory ECG Monitoring



One of Accordix application areas is 24-hour ambulatory ECG monitoring. The system saves ECG recording, respiratory rate data and activity parameters to the smartphone memory and simultaneously transfers it to a remote server with preliminary analysis results. A specialist automatically receives (downloads) data for further advanced analysis using Poly-Spectrum-AM.NET professional software. No traditional downloading is required. The patient can just come to the physician to bring the equipment back and get the comprehensive exam result interpretation at the same time!

Clinical application

- analysis of heart rhythm and conduction disorders
- investigation of heart rhythm variability (vegetative nervous system balance)
- detection of myocardial ischemia
- assessment of antiarrhythmic treatment effectiveness
- evaluation of sudden cardiac death risk
- investigation of cardiac function in children and adolescents



Tele-ECG

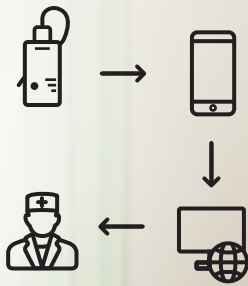
12-channel ECG recording transfer via the Internet and remote real-time specialist interpretation

High-qualified specialists may not be available for all patients especially for those living in some distant areas. It is common that in some far regions there are only mid-level health workers. Therefore tele-ECG technologies with remote real-time specialist supervision (analysis and conclusion) can become the best option.

Health provider records ECG using wireless Poly-Spectrum-8/EX* ECG recorder from 12 standard ECG leads. All obtained data can be analyzed in two different ways:

- using Poly-Spectrum-AM.NET software for ECG measurement and interpretation;
- by sending the ECG recording to a highly qualified specialist for further consultation and real-time conclusion.

Data transfer from the patient to the specialist



* CR-2 2-channel recorder or Poly-Spectrum-8/EX 12-channel recorder can be used depending on specialist's choice



Equipment for Rehabilitation of Cardiovascular Patients



Poly-Spectrum-8/G



Poly-Spectrum-8/E



Ergopoint



Multitrainer



Accordix

ECG leads

12

12

1, 2, 12

1, 2, 12

1, 2, 12

Automatic conclusion

+

+

+

+

+

Detection of pacemaker pulses

-

+

+

+

-

(Poly-Spectrum-8/E)

(Poly-Spectrum-8/E)

Interface

Bluetooth, GSM

USB

Bluetooth

Bluetooth, USB

Bluetooth

Application

Routine ECG with automatic interpretation, assessment of heart rhythm variability (HRV), QT, BP and PWV

Stress testing and ergospirometry to determine individual load

Stress testing and ergospirometry to determine individual load

Rehabilitation of cardiovascular patients in inpatient setting

Rehabilitation of cardiovascular patients under remote real-time ECG control (tele-ECG)



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November
2021