

Comarch CardioNow

Remote Cardiac Care





Comarch CardioNow – remote cardiac care

Comarch CardioNow and accompanying software provide a comprehensive solution to enable a new kind of telemedicine services at your facility. Three modes of operation let you choose the service model that best suits your needs. What makes us different?

- Three modes of operation in one unit
- Electronic patient log
- Auto-detection of ECG events
- Transmission of events detected by algorithms

Patient benefits

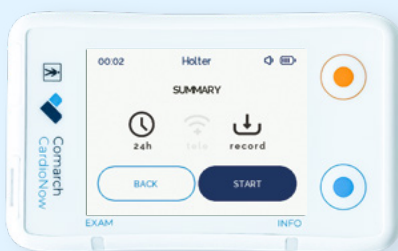
- Diagnosing cardiac arrhythmias
- Ability to continue treatment in the home environment
- Increased sense of safety through quick and easy contact with medical staff
- Detection of cardiac arrhythmias with automatic notification to medical staff
- Reduction of the response time to life and health threats
- Comfort and convenience

Benefits for your healthcare facility

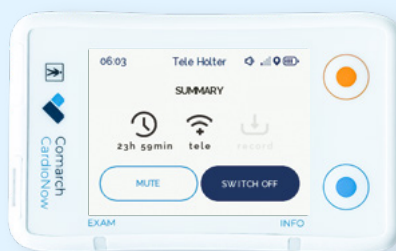
- Reduction of hospitalization time and costs resulting from extended hospital stays
- Ability to observe the patient's health and follow medical recommendations outside of the hospital
- Relief for medical staff
- Increased treatment efficiency
- Rapid access to patient medical data
- Improvement of reputation and image of the healthcare facility

Three operating modes

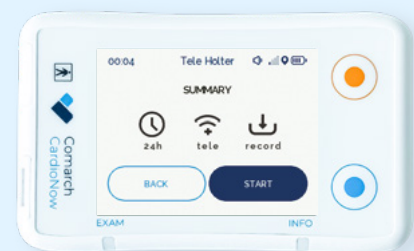
The Comarch CardioNow device operates in three different modes:



Holter mode



Event Holter mode

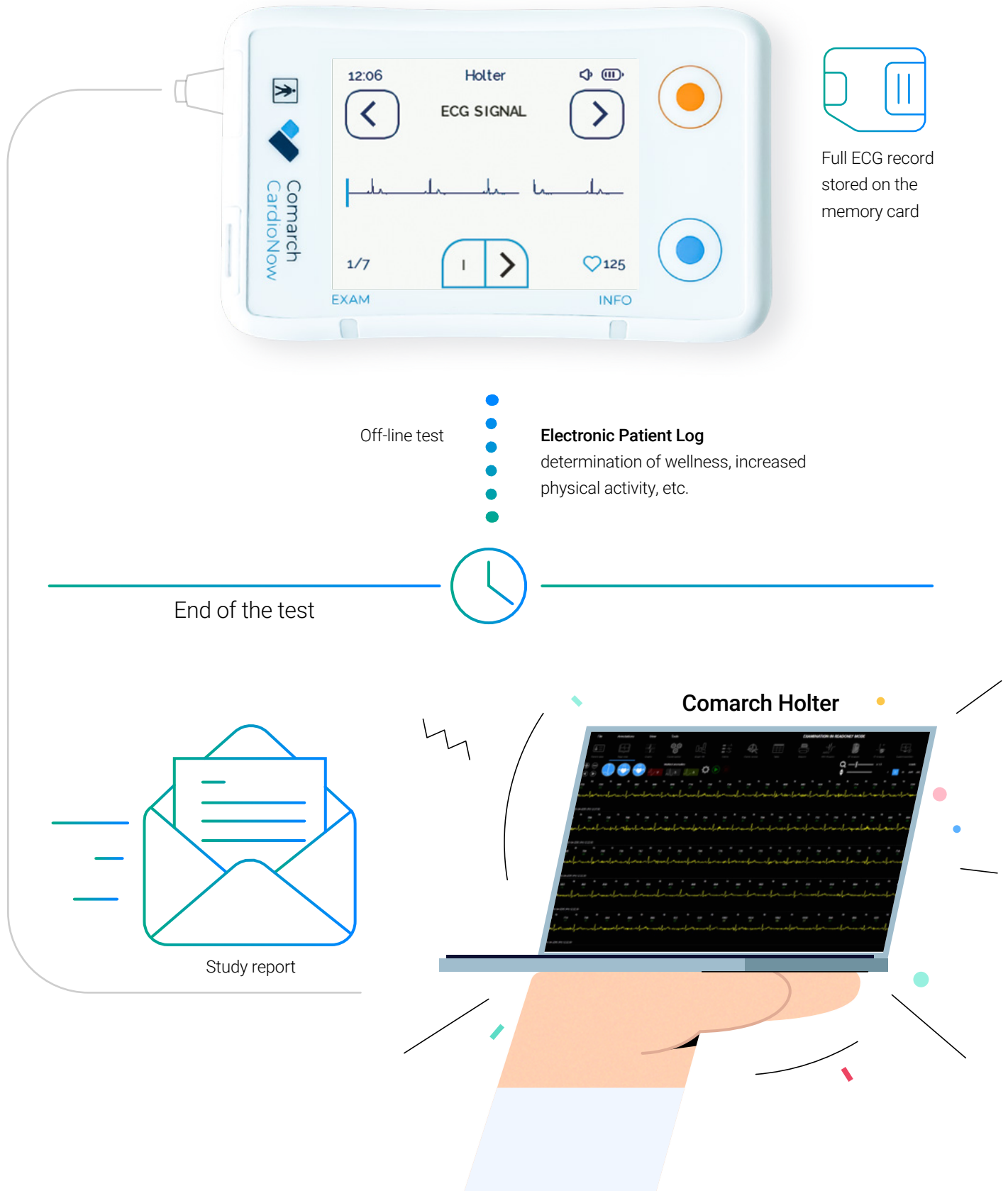


Tele Holter mode

Holter mode test

Holter test mode allows you to save all of the ECG record to the memory card of the device. It is performed off-line - the ECG signal is analyzed only after the complete test is finished in the Comarch Holter application.

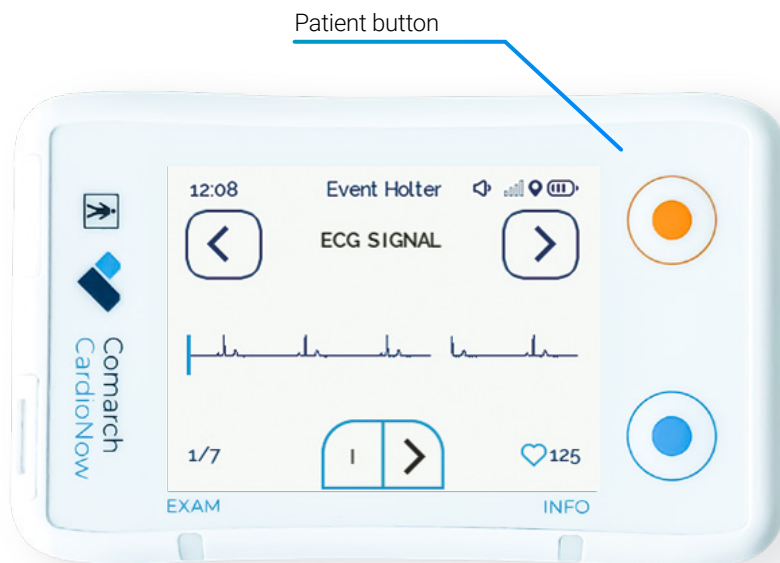
During the test, the patient has the ability to mark activity (such as stress and emotions) in a diary. Medical staff see the flags of these activities during signal analysis. At the end of the study, the patient receives a report with the results of the analysis.



Event Holter mode test

During an Event Holter mode test, the device analyzes the recorded data and detects defined cardiac events through built-in automatic analysis algorithms. The test allows you to transmit ECG events that are detected by the device and events

reported by the patient with the associated signal fragment on the Comarch e-Care 2.0 platform for further analysis by medical personnel. Personnel may contact the patient during the test if an abnormality is detected.



No full ECG record is stored on the memory card
No data analysis in Holter

On-line mode test

Analysis of the signal at the device level



Events detected, patient button, ECG signal

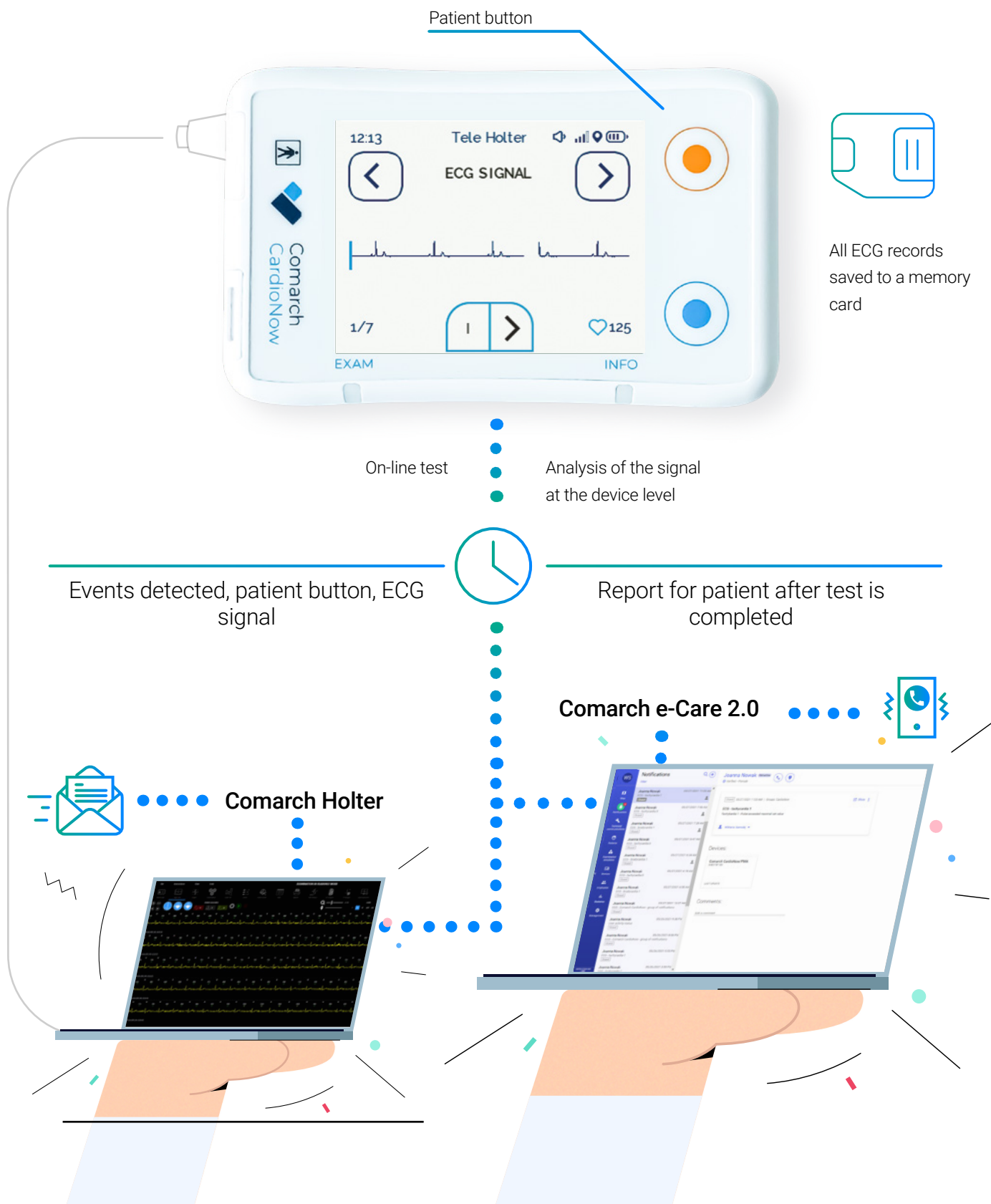
Comarch e-Care 2.0
Comarch ECG Viewer



Tele Holter mode test

The test in this mode is a combination of the two previous modes, Holter and Event Holter. A Tele Holter test saves all of the ECG records to the memory card of the device. At the same time, the device analyzes the acquired data and detects defined cardiac events through built-in automatic analysis algorithms.

Detected events and associated ECG signal fragments are sent to the Telemedical platform - **Comarch e-care 2.0**. **Once the test is complete, medical staff can analyze the entire ECG signal in the Comarch Holter viewer, and generate a report for the patient.**



System components

ECG Recorder - Comarch CardioNow

The Comarch CardioNow product is a Holter-type ECG recorder designed for surface recording of electrical activity of the heart muscle (ECG). Telemedicine functions make the device ideal for use in remote medical care.

The Comarch CardioNow device is intended for use by patients with cardiac conditions (including but not limited to ischemic heart disease, including post-myocardial infarction, with heart failure, post-ischemic stroke,

after cardiac surgery, after fainting and other suspected symptomatic and/or asymptomatic arrhythmias) and for prophylactic purposes.

The product is intended for use in a home environment. Only adult patients can use the device.



Device functionality:

- Three acquisition channels allow you to acquire a 7-lead ECG signal (I, II, III, V1, aVR, aVL, aVF)
- Automatic analysis algorithms
- Removable power module that allows continuity of testing
- Detection of the pads and the ECG module being unclipped
- Transmission of events detected by algorithms
- Patient button
- Electronic patient log
- Easy-to-read interface and step-by-step instructions for the user
- Low-battery alert

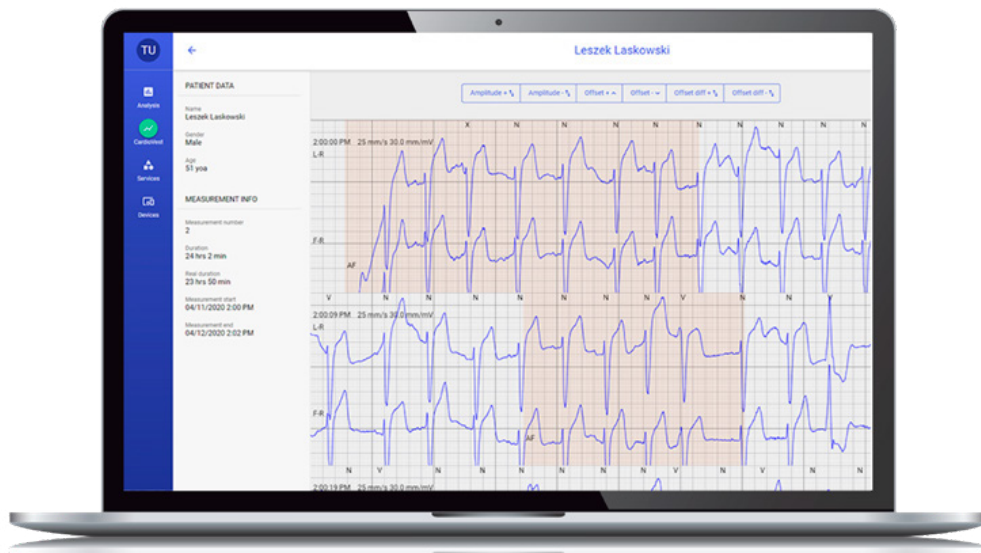
Algorithms implemented in Comarch CardioNow

The device uses automated analysis algorithms that detect the following cardiac events:

- Tachycardia
- Bradycardia
- RR pause with a set minimum value at sinus rhythm
- RR pause with minimum set value for atrial fibrillation
- Ventricular fibrillation
- Sequences of consecutive ventricular beats
- Atrial fibrillation

Comarch e-Care 2.0 Telemedicine Platform

The delivery of cardiac services is possible with the help of the Comarch e-Care 2.0 platform, which enables continuous monitoring of patients' health remotely. The platform allows the receipt and processing of medical data, including data collected from the Comarch CardioNow device.



Platform functionality:

- Event management of the Comarch CardioNow recorder
- ECG signal presentation
- View of a list of historical measurements
- Manually configuration of test parameters
- Patient management
- Web access

Comarch ECG Viewer

The Comarch ECG Viewer software is used to view and support interpretation of the ECG signal from the Comarch e-Care 2.0 using measurement tools.



Software functionality:

- Change in the arrangement of the lead presentation
- Navigator that allows you to quickly view the recording
- Measurement tools
- Ability to add a description
- Export of the registration - pdf, jpeg

Comarch Holter software

Comarch Holter is a web-based desktop application designed for PC-class computers. The application can be operated by anyone with the necessary medical knowledge to perform Holter analysis (physicians, paramedics, and ECG technicians). Supports cardiac diagnosis by automatically analyzing the ECG signal.



Functionality

- Load and view the ECG signal
- Auto ECG signal analysis
- Presentation of the results of automatic analysis
- Generation of a report with analysis results
- Digital signature

Comarch Healthcare S.A. has an implemented and certified ISO 13485 medical device quality management system.

The Comarch e-Care 2.0 platform, the Comarch Holter application, and the Comarch CardioNow device are medical devices certified to comply with Regulation UE 2017/745 (MDR).



The purpose of the cooperation was to build awareness of the availability of telemedicine services and to implement remote monitoring of SCM patients. Modern technology has enabled accurate diagnosis and has provided patient safety. We recommend working with Comarch Healthcare as a responsible patient care company, with high quality records collected from monitoring devices and the professionalism of the team working with our hospital."

Mirośław Wójciak
Chairman of the Management Board, Stobraw Medical Center

Comarch Healthcare

Comarch is an international company with over 25 years of global experience. We are an end-to-end IT healthcare provider, driven by our customer needs, always ready to deliver a tailored solution while staying true to our core values: being flexible and maintaining the happiness of the end-user. We offer a comprehensive ecosystem of products, consisting of EHR, telemedicine, hospital and medical AI clouds. Integration of these platforms ensures coordinated healthcare and supports patients, their families, and medical personnel.

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