

## Cardiologie Centra Nederland (CCN) and AliveCor partner to offer a 24/7 cardiac telehealth service to 7,000+ patients using KardiaMobile ECG technology and API data integration.



### Who are Cardiologie Centra Nederland?

Cardiologie Centra Nederland (CCN), founded in 2006 by cardiologists Dr. I.I. Tulevski and Dr. G.A. Somsen, is a network organization of 12 independent treatment centres for cardiovascular diseases, employing 70 cardiologists, throughout the Netherlands. CCN's mission is to improve healthcare by offering accessible, affordable, quality care through innovation and efficiency. CCN offers a full cardiac diagnostic service, accessible to patients 24/7 by all Dutch insurance companies. There is also close collaboration with major university clinics for more complex treatments and care where referral is required.

### What is HartWacht?

CCN operates a home-monitoring, telemedicine service called "HartWacht" for blood pressure, weight and heart rhythm monitoring. This service uses a dedicated patient app that collects medical information directly from the patient and transmits via mobile phone to the allocated medical staff. HartWacht is fully integrated into the electronic medical record of CCN. Data is monitored by dedicated eHealth staff and swift remote action is taken on results. The aim is to reduce unnecessary physical consultations, hospitalizations and presentations at the emergency room.

### AliveCor KardiaMobile

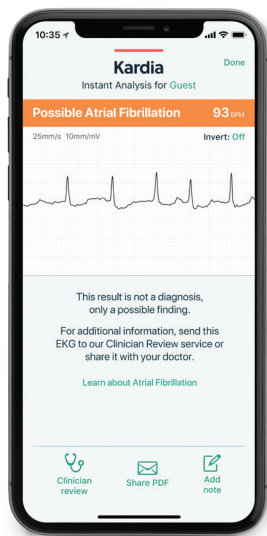
HartWacht uses the AliveCor KardiaMobile to monitor patients with arrhythmias, such as atrial fibrillation. KardiaMobile is the world's most clinically validated personal ECG with which you can capture a medical-grade ECG in just 30 seconds and get an instant analysis right on your smartphone. Clinically proven with over 170 peer reviewed research articles and used by leading cardiologists, KardiaMobile can detect many of the most common arrhythmias - anytime, anywhere.

With HartWacht, patients record ECGs as agreed with the care team, typically whenever symptoms occur or on a prescribed frequency. Recording an ECG is simple - the patient starts the Kardia app, places two fingers of the left and right hand on the KardiaMobile sensors and the ECG is automatically recorded and analysed. After finalizing the recording, ECG data is automatically transmitted into the KardiaPro remote patient monitoring system, a cloud based platform that allows monitoring of patient's ECGs in real time.

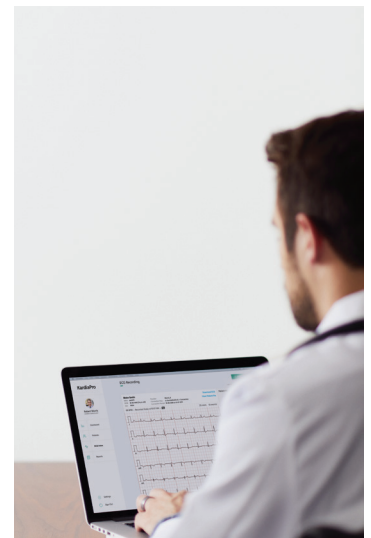
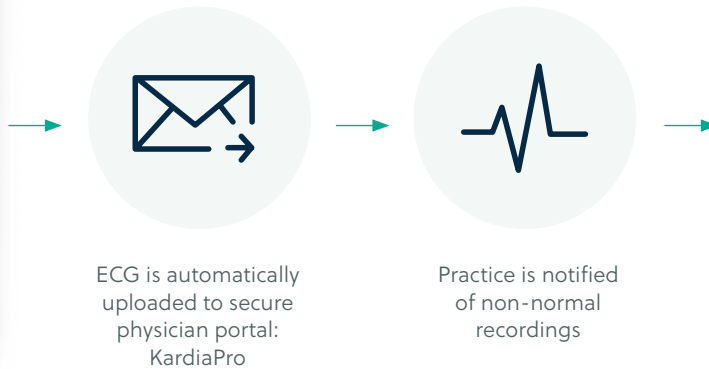
The current partnership between CCN and AliveCor is based on a shared mission to reduce the burden of cardiovascular disease. In this project, CCN has fully integrated KardiaMobile, the Kardia app and KardiaPro into their eHealth platform, via API connection.

## The story so far...

Since launch over 7,000 patients have been connected to HartWacht, of which 3,000 are currently active. In that time more than **300,000 ECG's** have been recorded and assessed, of which around **15% have detected atrial fibrillation**. Analysis of insurance data shows a **decrease of 32% in ambulance trips, 57% in emergency room visits and 16% in hospital admission days** after patients start participating in HartWacht, while quality of life was equivalent or higher compared to patients not utilising the HartWacht service. As such, the service is expanding significantly, not just in the Dutch healthcare market with new partner hospitals and general practitioners, but also into other European territories.



KardiaMobile customer records an ECG using their smartphone and receives abnormal rhythm



Remote ECG data can be used to manage patient care between office visits and via virtual visits

For more information about your integration with AliveCor, visit [alivecor.co.uk/integration](https://www.alivecor.co.uk/integration) or contact us.

Stefan Holzer (EMEA): [stefan@alivecor.com](mailto:stefan@alivecor.com)

Sean Warren (UK & Ireland): [sean.warren@alivecor.com](mailto:sean.warren@alivecor.com)

Hans Jaeger (DACH & Nordics): [hjaeger678@alivecor.com](mailto:hjaeger678@alivecor.com)

### References:

Selder, J.L., Breukel, L., Blok, S. et al. A mobile one-lead ECG device incorporated in a symptom-driven remote arrhythmia monitoring program. The first 5,982 Hartwacht ECGs. *Neth Heart J* 27, 38–45 (2019). <https://doi.org/10.1007/s12471-018-1203-4>

Maarten Z H Kolk, Sebastiaan Blok, Maud C C De Wildt, Fleur V Y Tjong, Michiel M Winter, Igor I Tulevski, Bert-Jan H van den Born, G Aernout Somsen, Patient-reported outcomes in symptom-driven remote arrhythmia monitoring: evaluation of the Dutch HartWacht-telemonitoring programme, *European Heart Journal - Digital Health*, Volume 2, Issue 2, June 2021, Pages 224–230, <https://doi.org/10.1093/ehjdh/ztab030>

AliveCor®  
**KardiaMobile**