



ePatch and Cardiologists: help or even more data pressure in healthcare?

“We’ve basically gone from the Walkman to Spotify, but for heart rhythm monitoring,” says Robert Tieleman, cardiologist at Martini Hospital. At Martini Hospital, they have now been working with Philips’ ePatch, which records heart rhythms, for over a year. Small, lightweight, and wireless, but with major implications for how cardiologists work and how patients experience their daily lives. Fewer hospital visits, more freedom of movement, and a mountain of additional data. Yet this raises another question: does this actually improve healthcare, or does it simply make it busier because of all the additional data?

& DOOR ANNEMARIE LAMAIN

Without hesitation, Tieleman answers that ePatch is an excellent solution on all fronts. First and foremost, Philips’ ePatch is far more comfortable for patients: “The traditional Holter monitor, a device worn around the neck and connected to electrodes on the chest, was the standard for years. You had to wear it for

24 hours. It worked, but it certainly wasn’t comfortable. People sleep poorly with it, cannot shower, and constantly feel like a patient,” Tieleman explains. “That also affects how they behave and therefore what you measure.” The new Philips ePatch breaks that pattern. Patients apply it themselves and can then do virtually everything they would normally do. This freedom turns out not only to be a luxury, but also a prerequisite for better care. According to

Tieleman, the more natural the behavior, the more reliable the data: “People sometimes forget they are even wearing it. And that is exactly what you want. It provides a more realistic picture of heart rhythm in daily life, rather than in the artificial setting of a hospital stay.”

Equally important is the duration of the monitoring. While a traditional Holter monitor usually records for 24 hours, Philips ePatch

remains in place for five days. That difference may seem small, but according to Tieleman it is clinically highly relevant. "The likelihood of capturing a rhythm disorder simply becomes much greater," Tieleman explains. "In the past, we often heard: 'I experienced symptoms right after the device was removed.' That problem

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occurs much less now. Longer recording time means more data and therefore a more complete picture of patient's heart rhythm. That helps in making a more accurate diagnosis and choosing a treatment that better fits the patient." In theory, this leads to better outcomes, and in practice Tieleman especially notices that he can reassure patients more effectively or intervene sooner when necessary.

A more efficient process

The positive impact of the ePatch lies not only in what is measured, but also in how the process is organized. ePatch is sent by mail, the patient applies it independently, and returns it afterwards. This immediately eliminates two hospital visits from the process. "That saves time, costs, and hassle. For patients and for cardiologists," says Tieleman. "Especially for people who live farther away or are less mobile, this is a major advantage. But it also matters within the hospital walls. There is less pressure on outpatient clinics, less logistics, and fewer staff are needed to connect and remove devices."

At a time of labor shortages, this is not a minor detail but a decisive argument. Yet the real acceleration lies at the 'back end of the process': the analysis of the data. Data from ePatch are analyzed using Philips' AI software, Cardiologs, which recognizes patterns and flags abnormalities. This fundamentally changes the work of the Holter analyst. "In the same amount of time it used to take to analyze one day of data, you can now review five days of data," says Tieleman. "That does not mean colleagues in the hospital become unnecessary. On the contrary. AI helps us tremendously, but we always continue to

verify whether it is correct. It is support, not replacement." That nuance is important, especially in a field where decisions have direct consequences for treatment and medication.

The efficiency gains are clearly visible. The hospital can monitor more patients with the same team. "We did not even need to replace someone who left our team," Tieleman explains. At the same time, he emphasizes that it is not a miracle solution. The analysis itself is faster, but the entire process, from recording to reporting, still takes time. "It's not as though we suddenly see ten times as many patients," he says. "But it is clearly more efficient. And perhaps even more importantly: the work becomes more manageable.

The software helps us quickly get to the core, without having to manually go through every second of data."

A clear clinical question

This brings us to a crucial question: if you collect more data, will you also find more abnormalities? And does that not lead to overdiagnosis and therefore additional pressure on healthcare? Tieleman understands that concern, but places it in perspective. "More data is only a problem if you do not have a clear clinical question," he explains. In some patient groups, such as people who have suffered a stroke, that question is very specific: is there atrial fibrillation or not? "Together with the neurology department, we agreed in advance that we only look at the specific data we need to know in that context. That prevents you from reporting all kinds of abnormalities that in this case have no clinical significance. The rest of the data remain available, but are only reviewed if there is a reason to do so, for example in the event of symptoms."

According to Tieleman, this form of discipline is essential in an era of abundant data. Not everything that can be measured is relevant. And not every deviation is a problem. "You have to prevent unnecessarily alarming the patient with findings that are actually irrelevant, even though you could view those results with the ePatch and Cardiologs."

The benefits of ePatch at Martini Hospital extend beyond the cardiology department alone. Neurology workflows are also changing. Patients admitted with a stroke immediately receive ePatch that can stay in place for five

days. "This means that for patients who go home earlier, the ECG recording simply continues. An additional benefit is that we have fewer beeps, fewer false alarms, and more calm on the ward," says Tieleman. For nurses and patients, this makes a noticeable difference. Here too, the principle applies: less visible technology, but more information in the background. The data are analyzed later, focused on the question that is relevant at that moment. And only if something emerges that requires further investigation will follow-up examinations take place.

Better filtering

The comparison with the Walkman and Spotify is therefore highly accurate. Where previously a device was needed to record and play back data, everything now fits onto a small chip in a single patch. This technological leap enables new forms of healthcare, but also creates new demands. According to Tieleman, the future lies not so much in measuring even more, but in filtering better. "We are getting more and more devices that record all kinds of things: heart rate, movement, temperature. But if you present all that data unfiltered to a physician, it becomes unworkable. And that is where AI has a role to play. Not as the final decision-maker, but as a preselection tool. A system that extracts relevant signals and filters out the rest. The goal is not to know everything. The goal is to know the right things, at the right moment," Tieleman states. ■

INTERVIEWEE

Robert Tieleman is a cardiologist at the Martini Hospital.



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