



#EHRA2019: Heart failure patients - remote monitoring prevents hospitalisations



Late-breaking findings from the RESULT trial presented at EHRA 2019, a European Society of Cardiology (ESC) congress, demonstrate that remote monitoring of heart failure patients is effective in keeping them out of hospital. In fact, this innovative strategy has won reimbursement from the national health system.

Around 1-2% of adults in developed countries have heart failure, a clinical syndrome characterised by breathlessness, ankle swelling, and fatigue. For some patients, implantable cardioverter defibrillators (ICDs) or cardiac resynchronisation therapy with a defibrillator (CRT-D) are recommended to correct potentially lethal arrhythmias and reduce the risk of sudden death.

The "remote supervision to decrease hospitalisation rate study" (RESULT), conducted by Dr. Mateusz Tajstra, of the Silesian Centre of Heart Disease, Zabrze, Poland and colleagues, examined whether remote monitoring of the implanted devices in heart failure patients reduces the rate of hospitalisation and death. The study recruited 600 patients with an ICD or CRT-D who were randomly assigned to remote monitoring or standard care with face-to-face appointments. During the subsequent 12 months, the research team recorded deaths from any cause and hospitalisations for cardiovascular reasons (the composite primary endpoint).

Dr. Tajstra's team found that the rate of the primary endpoint was significantly lower in the remote monitoring group (39.5%), as compared to the standard care group (48.5%; $p=0.032$). When the researchers looked at the components of the endpoint separately, they observed that the rate of all-cause mortality was similar between groups (6% versus 6%; $p=0.9$), whereas the hospitalisation rate for cardiovascular causes rate was significantly lower in the remote arm (37.1%) compared to the standard arm (45.5%; $p=0.045$).

"The death rate may have been similar between groups because the trial was not powered to show differences in survival alone," Dr. Tajstra pointed out. The doctor further said that remote monitoring is "not effective as a plug and play gadget." For remote monitoring to be successful, it is important to have a dedicated team who can analyse and act on data retrieved from the device, the author explained.

In the RESULT trial, remote monitoring was conducted from an office in the hospital, open for 10 hours daily Monday to Friday, with three levels of staff. Two electrophysiology nurses checked device transmissions, contacted patients if further information was needed, and decided the course of action. Cardiology residents investigated suspected arrhythmias or device malfunctions and took action if indicated. A clinical cardiologist and electrophysiologist were available for difficult clinical situations.

"Our pragmatic approach facilitated rapid clinical reactions to data from the devices," said Dr. Tajstra. "This prevented heart failure decompensation, where symptoms suddenly get worse and patients are often hospitalised. Even though there is no reimbursement for remote monitoring in Poland, our results have convinced the health authorities to pay for this service."

Source: [European Society of Cardiology \(ESC\)](#)

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