

# Tablet helps heart failure patients manage their disease including drug dosages

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A novel tablet is helping heart failure patients to manage their disease including drug dosages, according to research presented today at EuroHeartCare 2017.

Heart failure is a serious condition in which the heart does not pump blood around the body as well as it should. Not enough blood gets to the body, causing fatigue. Blood backs up waiting to enter the heart, leading to fluid accumulation in the legs and abdomen and fluid in the lungs (congestion).

Patients with heart failure are prescribed diuretics which act on the kidneys to produce more urine, thereby reducing fluid retention and congestion. Patients are advised to monitor their weight, as a rapid loss could be a sign that the diuretic dose is too high while a sudden gain could indicate fluid retention and require reducing the dose.

"Approximately 60% of patients with heart failure receive treatment and follow up in primary care," said lead author Maria Liljeroos, a nurse and deputy head of the coronary care unit, Mälarsjukhuset Hospital, Eskilstuna, Sweden, and a PhD student at Linköping University, Sweden. "Providing education to increase self-care is often a challenge in primary care due to lack of experience about heart failure and time."

To improve the delivery of evidence based care for heart failure patients in all parts of the healthcare system, in 2010 a county council in Sweden established heart failure clinics in primary care. It also decided to test

whether an e-health tool, called OPTILOGG, could help patients self-manage their condition.

OPTILOGG is a pre-programmed tablet attached to a weighing scale that provides heart failure education, registers body weight and symptoms, and titrates diuretics. If the tool detects heart failure deterioration, the patient is instructed to increase the dose of diuretics. If weight gain is above a pre-determined range patients should contact the heart failure clinic. Patients can use OPTILOGG as required without pushing any buttons and it takes less than 30 seconds a day.

OPTILOGG was previously shown to improve self-care in patients followed up by specialised heart failure clinics after hospitalisation. The current study evaluated its effectiveness in primary care. The study had three aims: to assess patients' adherence to using OPTILOGG, to explore nurses' experiences of the implementation, and to evaluate the effects on self-care behaviours.

Patients' adherence to using OPTILOGG was registered automatically and data was retrieved after four months. The introduction of the tool was assessed by semi-structured interviews with eight heart failure nurses at four months. Data on self-care behaviour was collected using the validated nine item European Heart Failure Self-Care Behaviour Scale (EHFScB-9) at baseline and after four months. Responses to each item ranged from 0-5 with lower scores indicating better self-care behaviour.

The study included 32 patients from four primary care heart failure clinics. Participants were 65 years old on average and 31% were female. The researchers found that 94% of patients used OPTILOGG as intended. Nurses reported that the introduction of the tool did not increase their workload. The median total score on the self-care behaviour scale significantly decreased from 28.5 at baseline to 18 at

four months.

Ms Liljeroos said: "Patients' self-care behaviours improved by 10.5 points or 37% when they used OPTILOGG. The nurses said patients felt safer and were more committed to taking better care of themselves when using the tool. We also found that it did not create more work for nurses."

She concluded: "Our study shows that introducing OPTILOGG into primary care is feasible and has the potential to help [patients](#) with [heart failure](#) to manage their condition. Following the results of our study, the tool is now available at all specialised and [primary care heart failure](#) clinics in the county council."

Provided by European Society of Cardiology

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