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Conference Abstract

## **A personalized and interactive web-based innovation to AdvanCe the Quality of life and caRE in Heart Failure patients (ACQUIRE-HF)**

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### **Abstract**

**Purpose:** To present the design, development and evaluation plans for an innovative patient-centred ICT solution (ACQUIRE-HF) to combat heart failure that will be developed by a multi-disciplinary, international research team of experts together with end users (heart failure patients and medical specialists).

**Context:** Heart failure is a complex, chronic, and debilitating condition and the end stage of all heart diseases. HF forms a global health and economic burden due to an increasing incidence and prevalence. Despite improved treatment options, hospitalization and mortality rates remain high. Thus, we are still searching for successful care modalities for timely detection of symptom aggravation in order to prevent hospitalization and death [1]. The absence of a patient-centred approach is likely to have caused the failure of available modalities, which have been more clinically driven [2].

**Methods:** The development and pilot testing of the ICT innovation is based on a ‘user-centred design’ using mixed methods (patient focus groups and expert panels). The clinical and economic impact of the ICT innovation will be evaluated using a randomized controlled trial design. A full MAST (Model for ASsessment of Telemedicine) evaluation will be included. Patients with heart failure will be enrolled from multiple hospitals across Denmark.

**Results and discussion:** ACQUIRE-HF represents a highly innovative and sustainable paradigm shift of HF care, as it relies on patient-centred and personalized tools to empower patients, with these tools coupled to a novel web-based, shared care and interactive platform in an integrated system. The innovation will allow patients to routinely track their health status, with flagging of deteriorations early on serving as cue for timely action for patients and HF specialists that will instigate a personalized care plan set up in a shared decision making process between patients and health care professionals. The tailored plan is targeted to patients’ individual needs and preferences and will be aided by tools on the platform to support compliance and behaviour change. This is expected to increase patient empowerment, compliance, wellbeing, and treatment satisfaction, and to reduce hospital readmissions. ACQUIRE-HF holds the potential to solve one of the grand challenges of society, not only in Denmark, but also beyond, as well as leading to more sensitive risk prediction models. The project has just been funded and has started in August 2015.

## **Keywords**

**heart failure; ICT solution; patient empowerment; patient-centred; personalized care; shared-decision making**

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## **References**

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