

Integrated home care technology assistance in frail older patients with heart failure: Aim and Design of the Care@Home project funded by the Apulian region.

Introduction: Heart failure is the leading cause of hospitalization in the elderly. About 20% of discharged patients tend to be re-hospitalized with a poor prognosis.

Aim of the Care@Home project funded through the call: “ICT Apulian Living Labs” (European Regional Development Fund. 2013-2014) is to implement and evaluate an informatics system capable of providing to frail and elderly people affected by heart failure the possibility to remain in their own home as long as possible thanks to an integrated telemonitoring system reducing also the mortality and the rehospitalisation rate.

Methods: In the pilot cohort study will be included 40 patients aged > 65 years, consecutively discharged from a Geriatric Unit, with diagnosis of heart failure and high mortality risk, evaluated through the use of a multidimensional prognostic index. All patients will undergo a Comprehensive Geriatric Assessment at the beginning and at the end of the study. Each patient will be followed for two weeks at their home using a small tele-monitoring system represented by a small sensor, evaluating the following parameters: EKG, respiratory rate, motility, risk of falls and temperature, connected to a Smartphone capable to collect, direct and indirectly, other data such as weight, blood pressure, urine output, pulse oximetry, sending the data to a central database accessible by all the actors involved in the care process.

Conclusions: The application of this home care system in this appropriate selected population could facilitate the developing of individualized care plans, improve the multidisciplinary communications and reduce adverse outcomes.