

OPeRA-HF study design (Risk Arm): an observational study to assess and predict the in-patient course, risk of readmission and mortality for patients hospitalised for or with heart failure

Authors:

A Crundall-Goode¹, KM Goode², A Shoaib¹, G Geleijnse³, JJG De Vries³, E Robson¹, K Dobbs¹, K Wong¹, AL Clark¹, JG Cleland¹, ¹Hull York Medical School, Centre for Cardiovascular and Metabolic Research - Hull - United Kingdom, ²Faculty of Health & Social Care, University of Hull - Hull - United Kingdom, ³Philips Research - Eindhoven - Netherlands,

Topic(s):

Prognosis

Citation:

European Journal of Heart Failure (2013) 15 (S1), S234

Background: Heart failure (HF) is a complex syndrome, the final common pathway of many different pathological processes and usually accompanied by other serious co-morbid conditions. It is a common reason for urgent hospitalisation and the resulting health trajectory of such patients after discharge is variable. Identifying those at high risk of re-admission or death and understanding their causes could improve discharge planning and help target monitoring or community support. At present, there is no robust model for clinical practice. Previous risk models of HF re-admission or death have mostly been derived from clinical trial data; have shown limited predictive accuracy and have not been reproduced. They have focused mainly on clinical and demographic variables with little attention to the effects of frailty, cognitive function, mood, social network, deprivation, lifestyle or repeat data available during hospitalisation.

Study aims: The risk stratification arm of this prospective observational study is designed to develop novel risk models for patients hospitalised with HF by taking a more holistic view of why they are admitted and re-admitted to hospital with HF. A very broad definition of HF, relevant to clinical practice rather than clinical trials, will be applied. Data collected will include those variables required to validate previously published risk models.

Study inclusion criteria: age >18, an in-patient treated with loop diuretics or with a clinical diagnosis of HF, normally resident in the catchment area for Hull & East Yorkshire Hospitals Trust (UK) and willing and able to consent.

Data Collection: patients will be enrolled into the study in the post-acute phase of their care, generally 3-7 day after admission. At enrolment the following information will be recorded: demo-socio-economic status, care support, clinical and family history, HF related symptoms, cognitive function, medication and devices, admission details, procedures performed (including ECG and echocardiography), questionnaires on sleep/mood/quality of life/symptoms and HF knowledge, full physical examination and bio-physiological tests (including bio-impedance and orthopnoea testing), biochemistry, frailty and mobility tests. On or close to the day of discharge a repeat record of medication, examination, bio-physiology, biochemistry, frailty and mobility will be made. The primary end-points for model development will be death or re-admission for (a) any reason, (b) cardiovascular disease (c) worsening heart failure at (i) 30-days, (ii) 6-months and (iii) 1-year. Patients will be followed up according to usual care.