Universität Basel

Research Project

POC-HF - Point of care with serial NT-proBNP measurement in patients with acute decompensation of heart failure during hospitalization as a therapy-monitoring: A prospective, unblinded, randomized controlled, pilot trial

Project funded by own resources

Project title POC-HF - Point of care with serial NT-proBNP measurement in patients with acute decompensation of heart failure during hospitalization as a therapy-monitoring: A prospective, unblinded, randomized controlled, pilot trial
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Faculty of Medicine
Departement Klinische Forschung
Bereich Medizinische Fächer (Klinik)
Bereich Medizinische Fächer (Klinik) / Allgemeine innere Medizin Liestal (Leuppi)
Project start 01.03.2018
Probable end 30.09.2019
Status Completed
Background and Rationale:

Despite important advances in the medical therapy of heart failure (HF), therapy monitoring is still based on signs and symptoms of this syndrome. NT-proBNP was repeatedly demonstrated to be a strong and independent predictor of morbidity and mortality in patients with HF. Only few – and conflicting – data are available on the efficacy of serial measurement of NT-proBNP as a tool for treatment monitoring in HF. In addition, these data are limited to the outpatient setting. Currently, no data are available on the effects of this approach in patients hospitalized for acute decompensated HF.

Objective(s):

The goal of this study is to explore whether the availability of serial NT-proBNP measurements together with safety parameters such as electrolytes and creatinine may influence treatment decision in patients with acute decompensated heart failure leading to more rapid and faster dose increase of prognostic therapies and earlier hospital discharge.

Endpoint(s):

Primary endpoint: The effect of therapy monitoring with NT-proBNP on the change of the NT-proBNP at discharge and the dosing of heart failure medication from admission to hospital discharge compared to the control group.

Secondary endpoints: Incidence of electrolyte imbalances, renal failure, weight changes, dose and variations made to medical heart failure therapies, QoL, length of hospital stay, adverse events and mortality

Inclusion / **Exclusion criteria:**

Inclusion criteria: Informed consent as documented by the patient's signature, history of acute deterioration of signs and symptoms of chronic HF indicating acute decompensated HF (NYHA functional classes II-IV), such as dyspnea, paroxysmal nocturnal dyspnea, reduced exercise tolerance, fatigue, peripheral edema (lower leg, ankle), elevated jugular venous pressure, displacement of the apical impulse, crack-

les, wheezing (cardiac asthma), third/fourth heart sound, lung congestion or cardiomegaly in chest x-ray, electrocardiographic abnormalities, and an NT-proBNP >300 pg/ml

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Exclusion criteria: Age <18 years, NT-proBNP <1200 pg/ml with creatinine clearance <60 ml/min, pregnant or breast feeding women, lack of safe contraception, known or suspected non-compliance, drug or alcohol abuse, inability to follow the procedures of the study, e.g. due to language problems, psychological disorders, dementia, etc.

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