ISRCTN53184579 https://doi.org/10.1186/ISRCTN53184579

Could improvement of care between hospital and home decrease readmissions of patients suffering of heart failure?

Submission date
17/05/2017

Recruitment status
No longer recruiting

Registration date
31/05/2017

Overall study status
Completed

Last Edited
04/01/2019

Condition category
Circulatory System

[_] Prospectively registered
[_] Protocol
[_] Statistical analysis plan
[X] Results
[_] Individual participant data

Plain English summary of protocol

Background and study aims
Heart failure occurs when the heart is unable to pump blood around the body as well as it used to do. It often is caused due to heart attacks and usually requires hospitalisation. When patients with heart failure are discharged, they often have to go back to the hospital due to complications. Readmissions to the hospital represent a major cause of burden and cost to healthcare systems. One of the main type of patients who are readmitted are patients who are hospitalised with heart failure. The early transition period from discharge to first medical visit is crucial because of possible lack of follow-up. Research is needed to see how possible actions, effective and cost-effective, that would improve patient's follow-up in the first weeks after discharge. The aim of this study is to evaluate the effectiveness of a transition plan after discharge is at reducing readmission rates.

Who can participate?
Adults aged 18 or older who are hospitalized with heart failure.

What does the study involve?
Participants are consecutively enrolled in the study while they are hospitalised with symptomatic heart failure and discharged at home. The study programme consists of a comprehensive discharge plan provided by a research nurse acting as transition coach with medical supervision and by a clinical pharmacist. The programme includes targeted therapeutic education, caregiver therapeutic education, medication reconciliation, setup of an appointment with the GP, notification of the GP, community nurses notification, patient-centered discharge information, follow-up call at the third, seventh and 18th day after discharge, optional consultation, and a hotline. The data collected is compared to medical records of patients hospitalized from 2009 to 2012.

What are the possible benefits and risks of participating?
Participants may benefit from receiving counselling, education, double check of their prescription, and follow-up after discharge, in addition of standard care. There is a risk of mismanagement of communication between patient, GP and hospital's physicians. This will be

addressed with personal calls and, if requested, with help of IUMG physicians, acting as mediator. Due to alarming sign or symptoms, it is possible that a patient is counselling to visit his GP or emergency room but ending with no acute heart failure nor new diagnosis. We consider it to be more an inconvenient.

Where is the study run from?
Lausanne University Hospital (Switzerland)

When is the study starting and how long is it expected to run for?
January 2013 to December 2016

Who is funding the study?
SGAIM-FOUNDATION (Switzerland)

Who is the main contact?
Dr Antoine Garnier

Contact information

Type(s)
Scientific

Contact name
Dr Antoine Garnier

Contact details
University Hospital of Lausanne
Centre Hospitalier Universitaire Vaudois
Rue du Bugnon 42
Lausanne
Switzerland
1011

Additional identifiers

EudraCT/CTIS number

IRAS number

ClinicalTrials.gov number

Secondary identifying numbers
278/13

Study information

Scientific Title
Effectiveness of a discharge plan to Lower EArly Readmission of patients hospitalized with Heart Failure: The LEAR-HF study

Acronym
LEAR-HF

Study objectives
Multidisciplinary discharge plan, including a clinical pharmacist, a nurse (“transition coach") with medical supervision, before and after the patient’s discharge, reduces by 50 percent the number of days of hospitalization as readmission within 30 days, for patients with symptomatic heart failure hospitalized in internal medicine, compared with the data from 2009 to 2012.

Ethics approval required
Old ethics approval format

Ethics approval(s)
The Vaud Cantonal Ethical Committee for Human Research, 24/09/2013, ref: protocol number 278/13

Study design
This is a prospective, single-centre, before-and-after study

Primary study design
Interventional

Secondary study design
Non randomised study

Study setting(s)
Hospital

Study type(s)
Other

Participant information sheet
Not available in web format, please use the contact details below to request a patient information sheet.

Health condition(s) or problem(s) studied
Adult patients with symptomatic heart failure hospitalized in internal medicine discharged at home

Interventions
This is a before and after study. The pre-intervention group consists of patients hospitalised from 2009 to 2012. Participants are consecutively enrolled in the study while they are hospitalised with symptomatic heart failure and discharged at home. The intervention consists of a comprehensive discharge plan provided by a research nurse acting as transition coach with medical supervision and by a clinical pharmacist. Once included in the study, participants receive a transition plan applied by a nurse, a clinical pharmacist and a physician. The plan includes the following steps:

Targeted therapeutic education: Based on existing material of the Swiss Heart Foundation for the patient, the nurse provides structured focused education on self-monitoring, instability sign and compliance.

Caregiver therapeutic education: The nurse gives the same education to the caregiver, if the patient had dementia or language issue.

Medication reconciliation at admission: The clinical pharmacist collects three sources of information to build the best available list of home medication, certified during an interview with the patient.

Medication reconciliation at discharge: The clinical pharmacist reviews and proposes improvement of the discharge prescription, based on the medication reconciliation on admission. The patient, the outpatient pharmacy and the general practitioner (GP) receive a commented medication plan.

Setup of an appointment with the GP: The nurse strongly encourages the patient to visit his GP within seven days after discharge, by helping him and reminding him during follow-up calls.

Notification of the GP: The nurses send a message including discharge date, diagnosis, and medication to the GP to improve his awareness.

Community nurses notification: If the participant benefits from the community nurses services, they are informed about the transition plan either in writing or by phone.

Patient-centered discharge information: Before discharge, participant awareness is challenged with three questions: "What is my diagnosis? What is my medication? When and where is my next appointment? "

Follow-up call: The nurse calls the patient at the third, seventh and 18th day after discharge, using structured interviews to identify instability signs, motivate the patient to self-monitoring, and, if needed, to call his GP. The calls where supervised by the senior physician.

Optional consultation: To overcome unavailability of a GP, the patient might ask for a follow-up visit at hospital, within the week after discharge.

Hotline: During office hours, the participant can call the nurse for any reason could call the nurse for any reason.

Patients are followed up by telephone calls at three, seven, 18 and 90th day after discharge to see if they have be re-admitted to the hospital with any complications.

The data collected is compared to medical records of patients hospitalized from 2009 to 2012.

Intervention Type
Other

Primary outcome measure
Fraction of days spent in hospital because of a readmission within 30 days, based on medical-administrative database of the hospital interrogated six months after end of study.

Secondary outcome measures
Potentially avoidable readmission rates, based on medical-administrative database of the hospital interrogated six months after end of study.

Overall study start date
01/01/2013

Completion date
31/12/2016

Eligibility

Key inclusion criteria
1. Adult patient (≥18 years)
2. Hospitalized in Internal Medicine Service at CHUV
3. Diagnostic of heart failure
4. NYHA class II or higher

Participant type(s)
Patient

Age group
Adult

Lower age limit
18 Years

Sex
Both

Target number of participants
250

Key exclusion criteria
1. Being transferred to other hospital or service, to rehabilitation centre or to retirement home
2. Being regularly under haemodialysis
3. Actively listed for heart transplantation
4. Failure to obtain signature of consent form

Date of first enrolment
01/11/2013

Date of final enrolment
30/11/2014

Locations

Countries of recruitment
Switzerland

Study participating centre

University Hospital of Lausanne
Rue du Bugnon 42
Lausanne
Switzerland
1007

Sponsor information

Organisation
University Hospital of Lausanne

Sponsor details
Rue du Bugnon 42
Lausanne
Switzerland
1011

Sponsor type
Hospital/treatment centre

ROR
https://ror.org/05a353079

Funder(s)

Funder type
Charity

Funder Name
SGAIM-FOUNDATION

Results and Publications

Publication and dissemination plan
Publication in a high-impact peer reviewed journal.

Intention to publish date
31/03/2017

Individual participant data (IPD) sharing plan

The datasets generated during and/or analysed during the current study is not expected to be made available due to presence of significant amount of information about hospital and patient outside the scientific question of the study.

IPD sharing plan summary

Not expected to be made available

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	01/08/2018		Yes	No