# An International, Double-blind, Randomised, Placebo-Controlled Phase III Study to Evaluate the Effect of Dapagliflozin on Reducing CV Death or Worsening Heart Failure in Patients with Heart Failure with Preserved Ejection Fraction (HFpEF) - DELIVER study

Published: 28-06-2018 Last updated: 11-04-2024

To determine whether dapagliflozin is superior to placebo, when added to standard of care, in reducing the composite of CV death and HF events (hospitalisation for HF or urgent HF visit) in patients with HF and preserved systolic function in\* full...

**Ethical review** Approved WMO **Status** Recruitment stopped

**Health condition type** Heart failures **Study type** Interventional

# **Summary**

### ID

**NL-OMON49973** 

**Source** 

ToetsingOnline

**Brief title**DELIVER

### Condition

Heart failures

### **Synonym**

Heart failure, preserved ejection fraction

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### **Research involving**

Human

# **Sponsors and support**

Primary sponsor: Astra Zeneca

Source(s) of monetary or material Support: Astrazeneca BV

### Intervention

Keyword: Dapagliflozin, Heart failure, Preserved ejection fraction, prevention

### **Outcome measures**

### **Primary outcome**

Time to (first occurrence of):

- 1. CV death.
- 2. Hospitalisation for HF.
- 3. Urgent HF visit (e.g., emergency department or outpatient visit).

### **Secondary outcome**

- 1. Total number of (first and recurrent) hospitalisations for HF and CV death.
- 2. Change from baseline in the total symptom score (TSS) of the KCCQ at 8 months.
- 3. Time to the occurrence of CV death

4. Time to the occurrence of death from any cause.

# **Study description**

### **Background summary**

The prevalence of chronic HF continues to increase globally. An estimated 38 million people are affected worldwide. Approximately half of all heart failure patients have HFpEF. Risk of death for HFpEF patients is high, with annualised mortality rate up to 15% in community settings.

However, patients with HFpEF have a particularly significant unmet medical need given that outcome studies hitherto performed have not resulted in any approved pharmacotherapy specifically for this condition. Recent data from cardiovascular (CV) outcome trials of SGLT2 inhibitors (empagliflozin and canagliflozin) indicate that treatment with SGLT2 inhibitors can reduce the risk of CV death and hospitalisation due to HF in patients with T2D overall, and in patients with T2D and concomitant HF.

Dapagliflozin is a potent, highly selective and orally active inhibitor of human renal SGLT2. Dapagliflozin lowers HbA1c with a low risk of inducing hypoglycaemia. In addition, dapagliflozin treatment has also been shown to reduce weight and systolic blood pressure, and to have favourable effects on increased blood uric acid, albuminuria, and arterial elasticity, conditions which are associated with increased CV and renal risk. Dapagliflozin is believed to be nephroprotective through non-glycaemic mechanisms. Dapagliflozin has global marketing approval in approximately 90 countries with the most recent estimate of cumulative post-marketing experience totalling over 1.6 million patient-years.

### Study objective

To determine whether dapagliflozin is superior to placebo, when added to standard of care, in reducing the composite of CV death and HF events (hospitalisation for HF or urgent HF visit) in patients with HF and preserved systolic function in

- \* full study population
- \* subpopulation with LVEF <60%

### Study design

This is an international, multicentre, parallel-group, event-driven,

randomised, phase III, double-blind study in patients with HFpEF

### Intervention

Patients will use either dapagliflozin 10 mg or placebo once daily.

### Study burden and risks

The patients visit the hospital approximately 10 times over an average of 24 months (depending on when the subject is enrolled in the study). Study participation will vary between approximately 15 - 33 months. The patients are asked to keep in touch with the study doctor throughout the study. During the study the following study procedures will be performed: physical examination (±3 times), blood draw (±8 times), a pregnancy test is performed (if applicable), (1 time), patients complete several questionnaires (±6 times) and an ECG is taken (1 time). Blood sampling may cause some discomfort or can cause a bruise. The use of study medication can cause side effects.

## **Contacts**

### **Public**

Astra Zeneca

Prinses Beatrixlaan 582 Den Haag 2595 BM NL **Scientific** Astra Zeneca

Prinses Beatrixlaan 582 Den Haag 2595 BM NL

# **Trial sites**

### **Listed location countries**

**Netherlands** 

# **Eligibility criteria**

### Age

Adults (18-64 years) Elderly (65 years and older)

### Inclusion criteria

- 1. Provision of signed informed consent prior to any study specific procedures.
- 2. Male or female patients age \*40 years.
- 3. Documented diagnosis of symptomatic heart failure HFpEF
- 4. LVEF >40%, measured within the last 12 months prior to enrolment and evidence of structural heart disease.
- 5. NT-pro BNP \*300 pg/ml at Visit 1 for patients without ongoing atrial fibrillation/flutter. If ongoing atrial fibrillation/flutter at Visit 1, NT-pro BNP must be
- \*600 pg/mL.
- 6. Patients may be ambulatory, or hospitalized; patients must be off intravenous heart failure therapy (including diuretics)

### **Exclusion criteria**

- 1. Receiving therapy with an SGLT2 inhibitor within 4 weeks prior to randomisation or
- previous intolerance to an SGLT2 inhibitor
- 2. Type 1 diabetes mellitus (T1D)
- 3. eGFR <25 mL/min/1.73 m2 (CKD-EPI formula) at Visit 1
- 4. Systolic blood pressure (BP) <95 mmHg on 2 consecutive measurements
- 5. Systolic BP\*160 mmHg if not on treatment with \*3 blood pressure lowering medications
- or \*180 mmHg irrespective of treatments, on 2 consecutive measurements
- 6. MI, unstable angina, coronary revascularization within 12 weeks prior to enrolment.
- 7. Planned coronary revascularization, ablation of atrial flutter/fibrillation and valve
- repair/replacement.
- 8. Stroke or transient ischemic attack (TIA) within 12 weeks prior to enrolment
- 9. Probable alternative or concomitant diagnoses which in the opinion of the investigator
- could account for the patient's HF symptoms and signs (e.g. anaemia, hypothyroidism)
- 10. Body mass index >50 kg/m2
- 11. Previous cardiac transplantation, or complex congenital heart disease.
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Planned cardiac resynchronisation therapy.

# Study design

# **Design**

Study phase: 3

Study type: Interventional

Intervention model: Parallel

Allocation: Randomized controlled trial

Masking: Double blinded (masking used)

Control: Placebo

Primary purpose: Prevention

### Recruitment

NL

Recruitment status: Recruitment stopped

Start date (anticipated): 05-11-2018

Enrollment: 160

Type: Actual

# Medical products/devices used

Product type: Medicine

Brand name: Farxiga

Generic name: dapagliflozin

Registration: Yes - NL outside intended use

# **Ethics review**

Approved WMO

Date: 28-06-2018

Application type: First submission

Review commission: MEC-U: Medical Research Ethics Committees United

(Nieuwegein)

Approved WMO

Date: 11-10-2018

Application type: First submission

Review commission: MEC-U: Medical Research Ethics Committees United

(Nieuwegein)

Approved WMO

Date: 29-11-2018

Application type: Amendment

Review commission: MEC-U: Medical Research Ethics Committees United

(Nieuwegein)

Approved WMO

Date: 04-12-2018

Application type: Amendment

Review commission: MEC-U: Medical Research Ethics Committees United

(Nieuwegein)

Approved WMO

Date: 01-02-2019

Application type: Amendment

Review commission: MEC-U: Medical Research Ethics Committees United

(Nieuwegein)

Approved WMO

Date: 07-02-2019

Application type: Amendment

Review commission: MEC-U: Medical Research Ethics Committees United

(Nieuwegein)

Approved WMO

Date: 20-02-2019

Application type: Amendment

Review commission: MEC-U: Medical Research Ethics Committees United

(Nieuwegein)

Approved WMO

Date: 05-03-2019

Application type: Amendment

Review commission: MEC-U: Medical Research Ethics Committees United

(Nieuwegein)

Approved WMO

Date: 11-03-2019

Application type: Amendment

Review commission: MEC-U: Medical Research Ethics Committees United

(Nieuwegein)

Approved WMO

Date: 26-08-2019

Application type: Amendment

Review commission: MEC-U: Medical Research Ethics Committees United

(Nieuwegein)

Approved WMO

Date: 20-09-2019

Application type: Amendment

Review commission: MEC-U: Medical Research Ethics Committees United

(Nieuwegein)

Approved WMO

Date: 03-02-2020

Application type: Amendment

Review commission: MEC-U: Medical Research Ethics Committees United

(Nieuwegein)

Approved WMO

Date: 18-02-2020

Application type: Amendment

Review commission: MEC-U: Medical Research Ethics Committees United

(Nieuwegein)

Approved WMO

Date: 06-08-2020

Application type: Amendment

Review commission: MEC-U: Medical Research Ethics Committees United

(Nieuwegein)

Approved WMO

Date: 07-09-2020

Application type: Amendment

Review commission: MEC-U: Medical Research Ethics Committees United

(Nieuwegein)

Approved WMO

Date: 18-01-2021

Application type: Amendment

Review commission: MEC-U: Medical Research Ethics Committees United

(Nieuwegein)

Approved WMO

Date: 12-02-2021
Application type: Amendment

Review commission: MEC-U: Medical Research Ethics Committees United

(Nieuwegein)

# **Study registrations**

# Followed up by the following (possibly more current) registration

No registrations found.

# Other (possibly less up-to-date) registrations in this register

No registrations found.

# In other registers

Register ID

EudraCT EUCTR2018 000802 46-NL

CCMO NL66182.100.18