

# Patient characteristics and cardiovascular and mortality outcomes in patients with type 2 diabetes mellitus initiating treatment with sodium-glucose co-transporter-2 inhibitors and other antidiabetic medications in Finland

**First published:** 09/05/2018

**Last updated:** 23/04/2024

Study

Planned

## Administrative details

### EU PAS number

EUPAS21945

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### Study ID

39983

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### DARWIN EU® study

No

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## Study countries

☐ Finland

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## Study description

This observational study will describe patient characteristics and rate of cardiovascular (CV) and mortality outcomes in patients with type 2 diabetes mellitus (T2DM) who are initiating use or treatment with sodium-glucose co-transporter-2 (SGLT-2) inhibitors and other diabetes medications (other glucose lowering drugs). The study will analyze the risk of hospitalization for heart failure (HF), other CV outcomes, severe hypoglycemia, kidney disease (KD), and all-cause mortality in T2DM patients who initiate use or treatment with SGLT-2s compared to patients initiating other glucose lowering drugs (GLD) in Finland.

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## Study status

Planned

# Research institutions and networks

## Institutions

**EPID Research Oy**

**First published:** 01/02/2024

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**Institution**

## Contact details

**Study institution contact**

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Study contact

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**Primary lead investigator**

Fabian Hoti

Primary lead investigator

## Study timelines

**Date when funding contract was signed**

Actual: 18/10/2017

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**Study start date**

Planned: 31/01/2018

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**Date of final study report**

Planned: 31/12/2018

## Sources of funding

- Pharmaceutical company and other private sector

## More details on funding

AstraZeneca Nordic Baltic

# Study protocol

[CVD REAL FINLAND Non Interventional Study Protocol v1.0 FINAL-v4\\_signed.pdf](#)  
(607.96 KB)

## Regulatory

**Was the study required by a regulatory body?**

No

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**Is the study required by a Risk Management Plan (RMP)?**

Not applicable

## Methodological aspects

### Study type

#### Study type list

**Study type:**

Non-interventional study

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**Scope of the study:**

Effectiveness study (incl. comparative)

**Main study objective:**

The primary objective of this study is to compare the risk for hospitalization for heart failure, in patients with T2DM who are new users of SGLT-2s as a class or dapagliflozin separately, versus an active comparison group including patients

with T2DM who are new users of other GLD.

## Study Design

### **Non-interventional study design**

Cohort

## Study drug and medical condition

### **Study drug International non-proprietary name (INN) or common name**

DAPAGLIFLOZIN

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### **Anatomical Therapeutic Chemical (ATC) code**

(A10BK) Sodium-glucose co-transporter 2 (SGLT2) inhibitors

Sodium-glucose co-transporter 2 (SGLT2) inhibitors

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### **Medical condition to be studied**

Type 2 diabetes mellitus

## Population studied

### **Age groups**

Adults (18 to < 46 years)

Adults (46 to < 65 years)

Adults (65 to < 75 years)

Adults (75 to < 85 years)

Adults (85 years and over)

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## **Estimated number of subjects**

400000

## Study design details

### **Outcomes**

Hospitalization for heart failure, Other CV outcomes, severe hypoglycemia, KD, all-cause mortality and health care resource utilization

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### **Data analysis plan**

The event rates and baseline characteristics for each treatment group will be summarized descriptively. Propensity scores (PS) will be calculated to assess comparability between SGLT-2 users, dapagliflozin users, and the groups of matched comparators (DPP-4 and other GLD users). The primary objective is to provide a formal statistical comparison between the treatment and comparator group with respect to hospitalizations for HF using a hazard ratio (HR) (or other appropriate measure).

## Data management

### ENCePP Seal

The use of the ENCePP Seal has been discontinued since February 2025. The ENCePP Seal fields are retained in the display mode for transparency but are no longer maintained.

### **Signed checklist for study protocols**

## Data sources

### Data sources (types)

[Drug dispensing/prescription data](#)

[Electronic healthcare records \(EHR\)](#)

[Other](#)

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### Data sources (types), other

Causes of Death Registry, National Prescription Register including drug purchases and reimbursement decisions, National Hospital Care Register, National Primary Care Register, National register for institutionalizations (other than hospitalizations)

## Use of a Common Data Model (CDM)

### CDM mapping

No

## Data quality specifications

### Check conformance

Unknown

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### Check completeness

Unknown

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### **Check stability**

Unknown

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### **Check logical consistency**

Unknown

## **Data characterisation**

### **Data characterisation conducted**

No