Empagliflozin vs. DPP-4 inhibitors and GLP-1 Receptor Agonists Cost of Care Study: a German claims data analysis

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Study Ongoing

Administrative details

EU PAS number

EUPAS31950

Study ID

45480

DARWIN EU® study

No

Study countries

☐ Germany

Study description

Study design: - Retrospective non-interventional comparative cost study using real-world data German sickness funds (claims). Research question and objectives: - Comparison of direct and indirect healthcare cost of type-2 diabetes mellitus (T2D) patients treated with Empagliflozin vs. DPP-4 Inhibitors (DPP-4i) / Sitagliptin or GLP-1 receptor agonists (GLP-1-RA) - Assessment of characteristics as well as previous and concomitant treatments of T2D patients treated with Empagliflozin or DPP-4i / Sitagliptin or GLP-1-RA

Study status

Ongoing

Research institutions and networks

Institutions

Institut für Pharmakoökonomie und Arzneimittellogistik (IPAM)

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Institution

Contact details

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Primary lead investigator

Maximilian Gabler

Primary lead investigator

Study timelines

Date when funding contract was signed
Planned: 31/10/2019

Study start date
Planned: 03/02/2020

Actual: 16/11/2020

Date of final study report
Planned: 30/06/2022

Sources of funding

- Pharmaceutical company and other private sector

More details on funding

Boehringer Ingelheim

Regulatory

Was the study required by a regulatory body?

No

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

Not applicable

Methodological aspects

Study type

Study type list

Study type:

Non-interventional study

Scope of the study:

Other

Drug utilisation

If ‘other’, further details on the scope of the study

Comparative cost evaluation

Main study objective:

Comparison of direct and indirect healthcare cost of T2D patients treated with Empagliflozin vs. DPP-4i or GLP-1-RA

Study drug and medical condition

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

EMPAGLIFLOZIN

Anatomical Therapeutic Chemical (ATC) code

(A10BH) Dipeptidyl peptidase 4 (DPP-4) inhibitors

Dipeptidyl peptidase 4 (DPP-4) inhibitors

(A10BJ) Glucagon-like peptide-1 (GLP-1) analogues

Glucagon-like peptide-1 (GLP-1) analogues

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)

Estimated number of subjects

25000

Study design details

Outcomes

Total direct healthcare cost of T2D patients treated with Empagliflozin vs. DPP-4i or GLP-1-RA, - Direct healthcare cost segments (hospital cost, outpatient cost, drug cost, remedies and aids cost) of T2D patients treated with Empagliflozin vs. DPP-4i or GLP-1-RA- Indirect healthcare cost of T2D patients treated with Empagliflozin vs. DPP-4i or GLP-1-RA

Data analysis plan

Before a comparison will be done, a propensity score matching (PSM) will be performed, to control for potential differences of baseline characteristics between the patients. In that PSM, all available baseline characteristics will be initially included (logistic regression that predicts belonging to one of the two compared cohorts). In a stepwise exclusion procedure, only those which influence significantly the probability to belong to one of the pre-defined groups will remain in the model . Finally, PS-matched samples will be compared.

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.

Data sources

Data sources (types)

Administrative healthcare records (e.g., claims)

Use of a Common Data Model (CDM)

CDM mapping

No

Data quality specifications

Check conformance

Unknown

Check completeness

Unknown

Check stability

Unknown

Check logical consistency

Unknown

Data characterisation

Data characterisation conducted

No