Comparative safety and effectiveness of warfarin, dabigatran, and rivaroxaban among Japanese patients with non-valvular atrial fibrillation (NVAF) and concomitant coronary artery disease (CAD) (1160.0308)

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Study Finalised

Administrative details

EU PAS number

EUPAS41345

Study ID

103354

DARWIN EU® study

No

Study countries

China

Study status

Finalised

Contact details

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Primary lead investigator

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Primary lead investigator

Study timelines

Date when funding contract was signed

Planned: 01/05/2022

Actual: 01/01/2022

Study start date

Planned: 01/05/2022

Actual: 17/03/2022

Data analysis start date

Planned: 30/11/2021

Date of final study report

Planned: 31/12/2022

Actual: 28/11/2022

Sources of funding

- Pharmaceutical company and other private sector

More details on funding

Boehringer Ingelheim (China) Investment Co., Ltd

Study protocol

1160.0308_Protocol1.0 - 20210528.pdf (981.34 KB)

Regulatory

Was the study required by a regulatory body?

Unknown

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

Not applicable

Methodological aspects

Study type

Study type list

Study topic:

Other

Study topic, other:

Disease/Epidemiology study

Study type:

Non-interventional study

Scope of the study:

Effectiveness study (incl. comparative)

Safety study (incl. comparative)

Data collection methods:

Secondary use of data

Main study objective:

 Respective rate of fatal or non-fatal major bleeding (defined as any transfusion and/or any hospitalization with associated bleeding) in all three patient groups

Study Design

Non-interventional study design

Cohort

Population studied

Short description of the study population

The study population involved patients with at least one diagnosis of non-valvular atrial fibrillation (NVAF) and concomitant coronary artery disease (CAD) aged 18 years or older identified from the Japan Medical Data Vision Co. Ltd. (MDV) database during the study period of April 1st, 2011 to December 31st,

2020.

Inclusion Criteria:

1. ≥18 years of age
2. Has at least one year of look-back period prior to the index date (defined as the first date of prescription for dabigatran, rivaroxaban, or warfarin during the study period)
3. New users of warfarin, dabigatran, and rivaroxaban, defined as patients without historic use of any oral anticoagulants during the look-back period
4. Has at least 1 diagnosis of NVAF during the look-back period prior to or on the index date
5. Has at least 1 diagnosis of CAD during the look-back period prior to or on the index date

Exclusion Criteria:

1. Diagnosed with end-stage renal disease, or undergo hemodialysis, or experience pregnancy during the study period
2. Initiate warfarin, dabigatran, rivaroxaban due to valvular AF, AF associated with mechanical valve malfunction or mechanical complication of heart valve prosthesis, or rheumatic AF
3. Underwent joint replacement procedures or diagnosed with venous thromboembolism during the look-back period prior to or on the index date
4. Prescribed with more than 1 OAC on the index date

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

1.000

Study design details

Outcomes

 Respective rate of fatal or non-fatal major bleeding (defined as any transfusion and/or any hospitalization with associated bleeding) in all three patient groups, Respective rate of composite outcomes of stroke/systemic embolism (SE)/myocardial infarction (MI)/all-cause mortality (inpatient)/major bleeding (MI)/gastrointestinal (GI) bleeding/ intracranial hemorrhage (ICH) in all three patient groups (the rate indicates the net clinical benefit, calculated as the net rate of all above safety and effectiveness outcomes)

Data analysis plan

Comparative analysis for primary and secondary outcomes will be conducted between groups. The comparative analysis will follow a two-step approach. The first step will compare the event rates and baseline characteristics of NOAC (Dabigatran, Rivaroxaban) - and warfarin-treated groups. To minimize potential confounding bias, the baseline characteristics of the two NOAC groups will be adjusted against that of the warfarin group using Stabilized Inverse Probability of Treatment Weighting (s-IPTW). Based on estimated HRs from the first step, the second step will determine the required sample size for comparisons between dabigatran- and rivaroxaban-treated groups. If the database can fulfil the sample size requirement, analysis will move forward for comparative analysis between the two NOAC groups. A Cox proportional hazard regression model with the time since NOAC drug index date as the underlying timescale will be used to compute adjusted hazard ratios (aHRs) with 95% CIs.

Documents

Study results

Summary of the study results.pdf (346.07 KB)

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)

Drug dispensing/prescription data

Electronic healthcare records (EHR)

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