Calcium channel blocker treatments and cancer risk. A methodological protocol to compare the results between databases, across designs: Evaluation of the impact of design/database/population differences on the outcome of the studied association

First published: 06/09/2012

Last updated: 01/08/2013

Study Ongoing

Administrative details

EU PAS number

EUPAS2388

Study ID

4428

DARWIN EU® study

No

Study countries

Denmark
Germany
Netherlands
Spain
United Kingdom

Study description

The studies described in this protocol are all performed within the framework of PROTECT (Pharmacoepidemiological Research on Outcomes of Therapeutics by a European ConsorTium) Work Package 2 and Working Group 1. The primary aim of these studies is to develop, test and disseminate methodological standards for the design, conduct and analysis of Pharmacoepidemiological (PE) studies applicable to different safety issues and using different data sources. To achieve this, results from PE studies on 5 key Drug / adverse events (D-AEs) pairs performed in different databases will be evaluated. The Use of calcium channel blockers associated with the risk of cancer is one of the key D-Ae pair of interest. Therefore, emphasis will be on the methodological aspects of the studies in this protocol and not on the clinical consequences of studying the association under investigation.

Study status

Ongoing

Research institutions and networks

Institutions

Real World Studies, LA-SER Research

France

United Kingdom

First published: 23/03/2012

Last updated: 23/03/2012

Institution | Outdated | Other | ENCePP partner

Division of Pharmacoepidemiology & Clinical Pharmacology (PECP), Utrecht Institute for Pharmaceutical Sciences (UIPS), Utrecht University

Netherlands

First published: 01/03/2010

Last updated: 27/05/2026

Institution | Educational Institution | ENCePP partner

Agencia Española de Medicamentos y Productos Sanitarios (Spanish Agency for Medicines and Medical Devices, AEMPS)

Spain

First published: 01/02/2024

Last updated: 04/09/2024

Institution | EU Institution/Body/Agency | Not-for-profit | Regulatory Authority | ENCePP partner

European Medicines Agency (EMA)

First published: 01/02/2024

Last updated: 01/02/2024

Institution

Ludwig-Maximilians-University Munich

First published: 01/02/2024

Last updated: 01/02/2024

Institution

Agencia Española de Medicamentos y Productos Sanitarios (AEMPS) Spain, European Medicines Agency (EMA) United Kingdom, Lægemiddelstyrelsen (Danish Medicines Agency) (DKMA) Denmark, Ludwig-Maximilians-Universität-München (LMU MUENCHEN) Germany, L.A. Sante Epidemiologie Evaluation Recherche (LASER)

United Kingdom

Networks

PROTECT

- Belgium
- Denmark
- France
- Germany
- Italy
- Netherlands
- Poland
- Spain
- Sweden
- Switzerland
- United Kingdom

First published: 26/06/2013

Last updated: 14/01/2025

Network

Contact details

Study institution contact

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Study contact

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Primary lead investigator

Lamiae Grimaldi

Primary lead investigator

Study timelines

Date when funding contract was signed

Planned: 19/08/2009

Actual: 19/08/2009

Study start date

Planned: 03/10/2011

Actual: 03/10/2011

Date of final study report

Planned: 30/09/2013

Sources of funding

- Pharmaceutical company and other private sector
- EU institutional research programme

More details on funding

Amgen, AstraZeneca, Genzyme, GlaxoSmithKline, MerckSerono, Novartis, Roche, Pfizer, Innovative Medicines Initiative (IMI)

Study protocol

PROTECT_WP2 Final Protocol_CCb_Cancer_22Nov2011_Amend1appJan2012.pdf
(236.22 KB)

Regulatory

Was the study required by a regulatory body?

No

Methodological aspects

Study type

Study type list

Study type:

Non-interventional study

Scope of the study:

Assessment of risk minimisation measure implementation or effectiveness

Disease epidemiology

Other

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

Analysis of discrepancies in results between different databases

Main study objective:

To assess the association between the use of calcium channel blockers and the risk of cancer with different study designs across different primary care databases and to compare the results between databases, across designs to evaluate the impact of design/database/population differences on the outcome of the studied association.

Study Design

Non-interventional study design

Cohort

Other

Non-interventional study design, other

Case-crossover, Descriptive study = description of exposure and/or outcome in the whole database during a defined period of time

Study drug and medical condition

Anatomical Therapeutic Chemical (ATC) code

(C08C) SELECTIVE CALCIUM CHANNEL BLOCKERS WITH MAINLY VASCULAR EFFECTS

SELECTIVE CALCIUM CHANNEL BLOCKERS WITH MAINLY VASCULAR EFFECTS

(C08D) SELECTIVE CALCIUM CHANNEL BLOCKERS WITH DIRECT CARDIAC EFFECTS

SELECTIVE CALCIUM CHANNEL BLOCKERS WITH DIRECT CARDIAC EFFECTS

(C08E) NON-SELECTIVE CALCIUM CHANNEL BLOCKERS

NON-SELECTIVE CALCIUM CHANNEL BLOCKERS

Medical condition to be studied

Colorectal cancer metastatic

Breast cancer

Prostate cancer stage I

Malignant melanoma

Renal cancer

Colon cancer stage II

Benign soft tissue neoplasm

Bone cancer metastatic

Hepatic neoplasm

Non-small cell lung cancer recurrent

Population studied

Age groups

- Preterm newborn infants (0 – 27 days)
- Term newborn infants (0 – 27 days)
- Infants and toddlers (28 days – 23 months)
- Children (2 to < 12 years)
- Adolescents (12 to < 18 years)
- 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

55.700.000

Study design details

Data analysis plan

Preliminary analyses will use non-parametric univariate and bivariate analysesCox proportional hazard models with time-dependent covariates adjusted on confounders ill be used to calculate the association between CCB exposure and risk of cancer. RR and 95 % CI will be established. CCB first-time and non-users between 01/01/1996 and 31/12/2009 will be followed from entry to the study until the earliest of: diagnosis date of study outcome (cancer), date of disenrollment from database, reaching 80 years of age, date of death, or end of study periodThree models will be performed One model will be with at least 1 prescription One model with pooled data with cumulated exposure Analysis based on the main treatment groupsPropensity score will also be computed for the previous analyses

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

ENCePPChecklistforStudyProtocols_L Grimaldi signed.pdf (401.59 KB)

Data sources

Data source(s)

THIN® (The Health Improvement Network®)

Clinical Practice Research Datalink

Danish registries (access/analysis)

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