

# Antihypertensives/diuretics and skin cancer

**First published:** 10/07/2018

**Last updated:** 27/03/2023

Study

Finalised

## Administrative details

### EU PAS number

EUPAS24772

---

### Study ID

24773

---

### DARWIN EU® study

No

---

### Study countries

☐ United Kingdom

---

### Study description

This study aims to provide a review of existing available evidence regarding the association between hydrochlorothiazide (HCTZ) / anti-hypertensive drugs and non-melanoma skin cancer (NMSC) / malignant melanoma (MM), together with a quality appraisal of the existing studies

---

## Study status

Finalised

## Research institutions and networks

### Institutions

European Medicines Agency (EMA)

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

**Last updated:** 01/02/2024

Institution

### Contact details

#### Study institution contact

Daniel Morales [eduardo.rodriqueztorres@ema.europa.eu](mailto:eduardo.rodriqueztorres@ema.europa.eu)

Study contact

[eduardo.rodriqueztorres@ema.europa.eu](mailto:eduardo.rodriqueztorres@ema.europa.eu)

#### Primary lead investigator

Daniel Morales

Primary lead investigator

### Study timelines

**Date when funding contract was signed**

Planned: 23/01/2018

Actual: 23/01/2018

---

**Study start date**

Planned: 23/01/2018

Actual: 23/01/2018

---

**Date of final study report**

Planned: 06/08/2018

Actual: 06/08/2018

---

## Sources of funding

- EMA

## Regulatory

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

Yes

---

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

Not applicable

---

## Methodological aspects

### Study type

### Study type list

**Study topic:**

Human medicinal product

---

**Study type:**

Non-interventional study

---

**Scope of the study:**

Assessment of risk minimisation measure implementation or effectiveness

**Data collection methods:**

Secondary use of data

---

**Main study objective:**

This report aims to provide a review of existing available evidence regarding the association between HCTZ/ anti-hypertensive drugs and NMSC/MM, together with a quality appraisal of the existing studies.

## Study Design

**Non-interventional study design**

Systematic review and meta-analysis

## Study drug and medical condition

**Anatomical Therapeutic Chemical (ATC) code**

(C09DX01) valsartan, amlodipine and hydrochlorothiazide

valsartan, amlodipine and hydrochlorothiazide

(C09BX03) ramipril, amlodipine and hydrochlorothiazide

ramipril, amlodipine and hydrochlorothiazide

(C09DX03) olmesartan medoxomil, amlodipine and hydrochlorothiazide

olmesartan medoxomil, amlodipine and hydrochlorothiazide

(C03AX01) hydrochlorothiazide, combinations

hydrochlorothiazide, combinations

(C03EA01) hydrochlorothiazide and potassium-sparing agents

hydrochlorothiazide and potassium-sparing agents

(C03AB03) hydrochlorothiazide and potassium

hydrochlorothiazide and potassium

(C03AA03) hydrochlorothiazide

hydrochlorothiazide

(C09XA54) aliskiren, amlodipine and hydrochlorothiazide

aliskiren, amlodipine and hydrochlorothiazide

(C09XA52) aliskiren and hydrochlorothiazide

aliskiren and hydrochlorothiazide

## Population studied

### Short description of the study population

The study focused on association between hydrochlorothiazide/anti-hypertensive drugs and non-melanoma skin cancer/malignant melanoma identified from the existing available evidence.

---

### 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

50000

## Study design details

### Outcomes

malignant melanoma, non-melanoma skin cancer

---

### Data analysis plan

To describe the type of studies, their characteristics and the variables used for confounding adjustment by them.

## Documents

### Study publications

[Morales DR, Pacurariu A, Slattery J, Kurz X. Association between hydrochlorothi...](#)

---

## 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)**

Published literature

## 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