# Investigating the possible role of BLood eosinophil counts in guiding ANti-inflammatory treatment of COPD exAcerbations (BLANCA)

**First published:** 20/12/2016

**Last updated:** 01/04/2024

Study | Finalised

## Administrative details

**EU PAS number**

EUPAS16875

**Study ID**

26154

**DARWIN EU® study**

No

**Study countries**

United Kingdom

**Study description**

A matched historical database study among patients with COPD in the UK will be conducted. The index date is defined as the date of any exacerbation with a blood eosinophil count measurement available on the same day and with a one-year baseline and at least 6 weeks post index date. A dataset of unique patients from the Optimum Patient Care Research Database (OPCRD) will be used for analyses. Moreover, the Clinical Practice Research Datalink (CPRD) will be used to increase the number of available patients fitting the inclusion and exclusion criteria. The dataset from both the sources will be combined and duplicate records will be removed. A combined dataset of unique patients will be used for all the analyses. The study population will consist of patients with a COPD diagnostic Read code, with blood eosinophil counts recorded on an exacerbation date with no OCS and antibiotic use during the 2 weeks before the event and registered at general practices providing data to OPCRD (or CPRD) across the United Kingdom.

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**Study status**

Finalised

## Research institutions and networks

### Institutions

#### Observational & Pragmatic Research Institute Pte (OPRI)

United Kingdom

**First published:** 06/10/2015

**Last updated:** 20/08/2026

Institution | Educational Institution | Laboratory/Research/Testing facility | ENCePP partner

# Contact details

**Study institution contact**

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Study contact

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**Primary lead investigator**

David Price

Primary lead investigator

# Study timelines

**Date when funding contract was signed**

Planned: 09/12/2016

Actual: 09/12/2016

**Study start date**

Planned: 27/12/2016

Actual: 27/12/2016

**Data analysis start date**

Planned: 06/01/2017

Actual: 06/01/2017

**Date of final study report**
Planned: 15/05/2018

Actual: 24/04/2018

## Sources of funding

- Pharmaceutical company and other private sector

## More details on funding

AstraZeneca

## 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 topic:**

Disease /health condition

Medical procedure

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**Study type:**

Non-interventional study

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**Scope of the study:**

Effectiveness study (incl. comparative)

**Data collection methods:**

Secondary use of data

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**Main study objective:**

To study whether COPD patients with high blood eosinophil counts at the time of exacerbation prescribed oral corticosteroids with/without antibiotics experience decreased treatment failure as compared to those not prescribed oral corticosteroids.

## Study Design

**Non-interventional study design**

Cross-sectional

## Population studied

**Short description of the study population**

Patients with a COPD diagnostic Read code, with blood eosinophil counts recorded on an exacerbation date with no OCS and antibiotic use during the 2 weeks before the event and registered at general practices providing data to OPCRD (or CPRD) across the United Kingdom.

**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)

**Special population of interest**

Other

**Special population of interest, other**

Chronic obstructive pulmonary disease (COPD) patients

**Estimated number of subjects**

2.500

## Study design details

**Outcomes**

The primary outcome is treatment failure (to be studied for 6 weeks outcome period), defined as additional prescription of antibiotic or oral corticosteroids course or respiratory-related accident and emergency (A&E) attendance or respiratory-related hospital attendance / admission. The secondary outcome is healthcare resource utilisation in the outcome period of 6 weeks and

additionally at a 1 year outcome period for both high blood eosinophil and non-high blood eosinophil patients treated with and without oral corticosteroids.

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**Data analysis plan**

Exact matching for categorical variables and matching within a maximum calliper for continuous variables will be used to match patients using nearest neighbour variable mixed matching with a match maximum of 3:1 on the variables predictive of outcomes, without replacement. Multiple observations can exist for the same patient, but each observation will only be used once during the matching process.The odds of experiencing treatment failure as defined above in patients prescribed oral corticosteroids with/without antibiotics will be compared to those not prescribed oral corticosteroids. A conditional logistic regression analysis in the matched cohorts will be performed to study whether the association between therapy option and outcomes is modified by the blood eosinophil level, adjusted for variables causing residual confounding. In addition, conditional cox proportional hazard regression will be used to assess how therapy option is associated with time to hospital admission.

# 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 source(s)**

Clinical Practice Research Datalink

Optimum Patient Care Research Database

**Data sources (types)**

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**

Unknown