

# Comparative safety of extrafine beclometasone fixed dose combinations (FDC) and fluticasone FDC in COPD

**First published:** 25/05/2020

**Last updated:** 02/07/2024

Study

Planned

## Administrative details

### EU PAS number

EUPAS35439

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### Study ID

40013

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### DARWIN EU® study

No

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### Study countries

 United Kingdom

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### Study description

A historical cohort study, comparing time to pneumonia events in patients with COPD who initiated a fixed dose combination containing beclometasone (Fostair® or Trimbrow®) with

- Patients initiating a fixed dose combination containing fluticasone
- Patients initiating a long-acting bronchodilator

The primary outcome is time until a pneumonia event. The secondary outcome is time until a respiratory infection. The following exploratory outcomes will be used: Time until the first pneumonia related hospitalisation: a primary care recorded hospital admission within one month of a physician diagnosed pneumonia Time to first primary care recorded hospital admission. The rate of moderate/severe COPD exacerbations and pneumonia events during the entire follow-up period (to be used for a benefit/harm comparison). A set of confounding handling approaches will be evaluated, and the best one with regard to residual bias will be chosen. Superiority will be tested in a per protocol analysis comparing the FDC beclomethasone group with the FDC fluticasone reference group, with a superiority margin of 10% (or  $\log_e(1.1)$  on the log scale). Patients will be censored at the end of data availability (due to leaving the practice, or the last time data were extracted for the practice), 4 weeks after the last prescription containing ICS or 4 weeks after the patient switches to the comparator medication. This four-week period is to ensure we will capture a pneumonia event, even if early symptoms have caused discontinuation of ICS or switching to the other medication. Non-inferiority will be tested in per protocol analyses comparing the FDC beclometasone group with the LABD reference group, with a non-inferiority margin of a relative difference of 15%. Patients will be censored at the end of data availability (due to leaving the practice, or the last time data were extracted for the practice) or on addition of an ICS.

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## **Study status**

Planned

## **Research institutions and networks**

## Institutions

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

 United Kingdom

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

**Last updated:** 19/08/2024

**Institution**

**Educational Institution**

**Laboratory/Research/Testing facility**

**ENCePP partner**

## Contact details

### Study institution contact

David Price [dprice@rirl.org](mailto:dprice@rirl.org)

**Study contact**

[dprice@rirl.org](mailto:dprice@rirl.org)

### Primary lead investigator

David Price

**Primary lead investigator**

## Study timelines

**Date when funding contract was signed**

Planned: 01/04/2020

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**Study start date**

Planned: 01/06/2020

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**Data analysis start date**

Planned: 01/07/2020

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**Date of interim report, if expected**

Planned: 01/09/2020

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**Date of final study report**

Planned: 14/05/2021

## Sources of funding

- Pharmaceutical company and other private sector

## More details on funding

Chiesi pharmaceuticals, Italy

## Regulatory

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

No

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

Not applicable

## Methodological aspects

## Study type

**Study type:**

Non-interventional study

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**Scope of the study:**

Assessment of risk minimisation measure implementation or effectiveness

Effectiveness study (incl. comparative)

**Main study objective:**

1. To compare the risk of pneumonia in patients with COPD among new users of ICS FDC with fine-particle fluticasone or extrafine beclometasone, and to assess if this is the same for the different fluticasone salts. 2. To compare the risk of pneumonia in patients with COPD among new users of ICS FDC with extrafine beclomethasone versus long acting bronchodilators

## Study Design

**Non-interventional study design**

Cohort

## Study drug and medical condition

**Anatomical Therapeutic Chemical (ATC) code**

(R03) DRUGS FOR OBSTRUCTIVE AIRWAY DISEASES

DRUGS FOR OBSTRUCTIVE AIRWAY DISEASES

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**Medical condition to be studied**

Chronic obstructive pulmonary disease

## 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)
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## Estimated number of subjects

60000

## Study design details

### Outcomes

time until a pneumonia event, time until a respiratory infection.

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### Data analysis plan

1. Superiority will be tested in a per protocol analysis comparing the FDC beclomethasone group with the FDC fluticasone reference group, with a superiority margin of 10% (or  $\log_e(1.1)$  on the log scale). 2. Non-inferiority will be tested in per protocol analyses comparing the FDC beclomethasone group with the LABD reference group, with a non-inferiority margin of a relative difference of 15%. A set of confounding handling approaches will be evaluated, and the best one with regard to residual bias will be chosen. Time-to-event analysis will be performed to analyse the association between treatment and time to recurrent pneumonia events. Cox regression with the Prentice, Williams and Peterson approach with gap-time will be used. To model the recurrent events, events occurring within 28 days of a previous event are considered part of a single episode. Therefore, the patients will be at risk for a new event starting 28 days after each previous event.

## Data management

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)

Optimum Patient Care Research Database

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### Data sources (types)

[Electronic healthcare records \(EHR\)](#)

## Use of a Common Data Model (CDM)

### CDM mapping

No

## Data quality specifications

### Check conformance

Unknown

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### Check completeness

Unknown

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### Check stability

Unknown

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**Check logical consistency**

Unknown

**Data characterisation**

**Data characterisation conducted**

No