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

Study ID

40013

DARWIN EU® study

No

Study countries

United Kingdom

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 Trimbow®) 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 loge(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.

Study status

Planned

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: 01/04/2020

Study start date
Planned: 01/06/2020

Data analysis start date
Planned: 01/07/2020

Date of interim report, if expected
Planned: 01/09/2020

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

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

Not applicable

Methodological aspects

Study type

Study type:

Non-interventional study

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

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)

Estimated number of subjects

60000

Study design details

Outcomes

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

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 loge(1.1) on the log scale).2. 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%.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

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

No