Asthma treatment in pregnancy and the frequency of adverse pregnancy outcomes (WEUSRTP4850)

First published: 19/07/2012

Last updated: 23/04/2024

Study Finalised

Administrative details

EU PAS number

EUPAS2628

Study ID

9739

DARWIN EU® study

No

Study countries

United Kingdom

Study description

Fluticasone propionate (FP) is an inhaled corticosteroid (ICS) used for the treatment of asthma, often in combination with the long-acting β-agonist salmeterol. Owing to small numbers of pregnancy exposures in the past, little is known about the safety of FP when used during pregnancy. Now, however, there are sufficient 1st trimester exposed pregnancies on the General Practice Research Database to allow the overall risk of major congenital malformations (MCMs) following exposure to FP to be evaluated. This study aims to evaluate the safety profile of FP compared with exposure to all other ICS with all MCMs combined as the primary endpoint whilst taking into account potential confounders and exposure to other asthma medicines. Analyses will be carried out separately for FP alone and FP in combination. If appropriate the two groups will be combined.In order to give an overall picture of the risks of adverse pregnancy outcomes associated with asthma in general and different levels of asthma control, irrespective of the products used for treatment, this study will also evaluate - 1. The risk of MCMs in pregnancies to women with ‘considerable to severe’ and ‘moderate’ asthma activity during the 1st trimester of pregnancy compared with those with ‘mild’ asthma activity during the 1st trimester. 2. The prevalence of specific MCMs identified within the entire asthma population.3. The risk of a spontaneous pregnancy loss to women with ‘considerable to severe’ and ‘moderate’ asthma activity during the 1st trimester of pregnancy compared with those with ‘mild’ asthma activity during the 1st trimester.4. The risk of a pre-term delivery to women with ‘considerable to severe’ and ‘moderate’ asthma activity in the 3rd trimester of pregnancy compared with those with ‘mild’ asthma activity in the 3rd pregnancy trimester. 5. The analyses carried out for pre-term delivery will also be carried out to evaluate the risk of stillbirths and neonatal death.

Study status

Finalised

Research institutions and networks

Institutions

University of Bath

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Institution

Contact details

Study institution contact

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Study contact

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Primary lead investigator

Corinne de Vries

Primary lead investigator

Study timelines

Date when funding contract was signed

Planned: 01/06/2012

Actual: 01/06/2012

Study start date

Planned: 23/07/2012

Actual: 01/08/2012

Date of final study report

Planned: 28/02/2013

Actual: 31/07/2013

Sources of funding

- Pharmaceutical company and other private sector

More details on funding

GlaxoSmithKline

Study protocol

Asthma in Pregnancy_University of Bath_ENCePP_July2012.pdf (508.76 KB)

Regulatory

Was the study required by a regulatory body?

No

Methodological aspects

Study type

Study type list

Study topic:

Human medicinal product

Disease /health condition

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:

To evaluate the safety profile of fluticasone propionate compared with exposure to all other inhaled corticosteroids, with all major congenital malformations combined as the primary endpoint, whilst taking into account potential confounders and exposure to other asthma medicines. This will be carried out separately for FP alone and in combination. If appropriate the 2 groups will be combined.

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

Asthma

Population studied

Short description of the study population

Females with asthma who had asthma related medical code recorded anytime before the pregnancy start date and at least one prescription for an asthma medicine in the 6 months before the pregnancy start date or during pregnancy and no asthma related Read medical code but at least 6 prescriptions for an asthma

medicine in their record before the pregnancy start date, including one in the 6 months before the pregnancy start date or during pregnancy.

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)

Special population of interest

Pregnant women

Estimated number of subjects

30000

Study design details

Outcomes

The primary outcome of interest will be all major congenital malformations (MCMs) combined. MCMs will be defined according to the EUROCAT (European network of population-based registers for the epidemiological surveillance of congenital anomalies) classification scheme. MCMs will exclude all chromosomal defects and congenital malformations known to be of a genetic origin. 1. Spontaneous pregnancy losses2. Pre-term births3. Stillbirths at >24 weeks gestation4. Neonatal deaths occurring in the first 4 weeks of life

Data analysis plan

The absolute risk of a pregnancy outcome with a major congenital malformation (MCM) will be calculated for the fluticasone propionate exposure groups, other inhaled corticosteroid (ICS) exposure group and the entire asthma cohort stratified by asthma activity level.The relative risk of an MCM following first trimester exposure to fluticasone propionate compared to all other ICS will be calculated stratified by asthma activity level during the 1st trimester.The prevalence of different types of MCMs identified in the fluticasone propionate exposure groups, other ICS exposure group and the entire asthma cohort will be calculated.The risk of a spontaneous pregnancy loss, a pre-term delivery and a stillbirth will be calculated separately for the entire asthma cohort stratified by asthma activity level. Comparisons will be made between women classed as having ‘considerable to severe’ asthma activity and ‘moderate’ asthma activity to those with ‘mild’ asthma activity.

Documents

Study results

EUPAS2628-9187.pdf (273.33 KB)

WEUSRTP4850_Clinical Study Result Summary.pdf (67.1 KB)

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.

This study has been awarded the ENCePP seal

Conflicts of interest of investigators

2012-0011-DoI C de Vries_SDPP-2628.pdf (189.59 KB)

Composition of steering group and observers

EUPAS2628-2818.pdf (162.77 KB)

Signed code of conduct

2012-0011-DoC-CoC_SDPP-2628.pdf (29.39 KB)

Signed code of conduct checklist

2012-0011-Checklist CoC_SDPP-2628.pdf (364.59 KB)

Signed checklist for study protocols

2012-0011-Checklist Protocol_SDPP-2628.pdf (155.27 KB)

Data sources

Data source(s)

Clinical Practice Research Datalink

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