

# Fluarix®/ FluLaval®/ Fluarix® Quadrivalent/FluLaval® Quadrivalent Pregnancy Registry: a prospective, exploratory, cohort study to detect and describe abnormal pregnancy outcomes in women intentionally or unintentionally vaccinated with Fluarix® or Fluarix® Quadrivalent or FluLaval® or FluLaval® Quadrivalent during pregnancy or within 28 days preceding conception

**First published:** 27/05/2014

**Last updated:** 18/03/2024

Study

Finalised

## Administrative details

### EU PAS number

EUPAS6521

### Study ID

41807

## **DARWIN EU® study**

No

---

### **Study countries**

United States

---

### **Study description**

The purpose of this pregnancy registry study is to detect and describe abnormal pregnancy outcomes in women intentionally or unintentionally vaccinated with any of GlaxoSmithKline (GSK) Biologicals' seasonal Inactivated Influenza Vaccines (sIIVs): Fluarix, FluLaval, Fluarix Quadrivalent and FluLaval Quadrivalent. This study is a transition of existing ongoing pregnancy registries for Fluarix/ FluLaval/Fluarix Quadrivalent/ FluLaval Quadrivalent into one post-authorization safety study (PASS). Pregnancy outcome data will be collected using questionnaires within 2 months of the estimated date of delivery (EDD) and approximately 6 months and 12 months after the EDD (for all live births) to ascertain the presence of birth defects not diagnosed before, from Q2 2014 to Q2 2019. The intent of the Registry is to prospectively collect data such as vaccination with GSK sIIVs during pregnancy or within 28 days preceding conception, potential confounding factors (such as exposure to other medications) and information related to the outcome of the pregnancy.

---

### **Study status**

Finalised

## **Research institutions and networks**

### **Institutions**

# GlaxoSmithKline (GSK)

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

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

**Institution**

## Contact details

### **Study institution contact**

Call Center EU Clinical Trials

Vx.publicdisclosureglobal@gsk.com

**Study contact**

[Vx.publicdisclosureglobal@gsk.com](mailto:Vx.publicdisclosureglobal@gsk.com)

### **Primary lead investigator**

Call Center EU Clinical Trials

**Primary lead investigator**

## Study timelines

### **Date when funding contract was signed**

Actual: 13/05/2014

---

### **Study start date**

Actual: 01/06/2014

---

### **Date of final study report**

## Sources of funding

- Pharmaceutical company and other private sector

## More details on funding

GlaxoSmithKline (GSK) Biologicals

## Study protocol

[201476-Protocol-Redaction.pdf \(318 KB\)](#)

[gsk-201476-protocol-redact.pdf \(929.95 KB\)](#)

## Regulatory

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

Yes

---

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

EU RMP category 3 (required)

## Methodological aspects

### Study type

### Study type list

**Study topic:**

Disease /health condition

Human medicinal product

---

**Study type:**

Non-interventional study

---

**Scope of the study:**

Assessment of risk minimisation measure implementation or effectiveness

Other

**If 'other', further details on the scope of the study**

Detect/describe abnormal pregnancy outcomes in women intentionally or unintentionally vaccinated with any of GlaxoSmithKline (GSK) Biologicals' seasonal Inactivated Influenza Vaccines: Fluarix, FluLaval, Fluarix Quadrivalent and FluLaval Quadrivalent

**Data collection methods:**

Combined primary data collection and secondary use of data

---

**Main study objective:**

To describe the characteristics and proportion of prospectively reported pregnancies (women vaccinated with Fluarix or FluLaval or Fluarix Quadrivalent or FluLaval Quadrivalent during pregnancy or within 28 days preceding conception) with abnormal pregnancy outcomes.

## Study Design

**Non-interventional study design**

Cohort

## Study drug and medical condition

## **Medical condition to be studied**

Abortion spontaneous

Stillbirth

Selective abortion

Abortion induced

Live birth

## **Population studied**

### **Short description of the study population**

In the US, the GSK sIIVs are indicated for prevention of disease caused by influenza A subtype viruses and type B virus lineages contained in the vaccine. GSK sIIVs are approved for use in persons 3 years of age (Fluarix) and older or 6 months of age and older (FluLaval or Fluarix Quadrivalent or FluLaval Quadrivalent). The study population included women vaccinated with any of the four GSK sIIVs during pregnancy or within 28 days preceding conception.

### **Inclusion criteria**

A subject was included in the Registry if all the following criteria were met:

- Exposure to GSK sIIVs occurred during pregnancy or within 28 days preceding conception.
- Subject was a US resident.
- HCP was identified (name, address and phone number).
- Subject could be identified (by GSK or HCP).

Data from registered subjects were included in the analyses if the following criterion was met:

- Pregnancy was ongoing and the outcome was unknown at the time of initial report.

## **Exclusion criterion**

Data from registered subjects were not included in the analyses if the following criterion was met:

- Pregnancy outcome was known at the time of the initial report. Types of known outcomes included prenatal testing reports in which the results were abnormal or outside the reference range, indicating possible abnormality in the fetus.
- 

## **Age groups**

- Adolescents (12 to < 18 years)
  - Children (2 to < 12 years)
  - Adults (18 to < 46 years)
- 

## **Special population of interest**

Pregnant women

---

## **Estimated number of subjects**

1

---

# **Study design details**

## **Outcomes**

Occurrence of abnormal pregnancy outcomes in women intentionally or unintentionally vaccinated with Fluarix or FluLaval or Fluarix Quadrivalent or FluLaval Quadrivalent during pregnancy or within 28 days preceding conception during 2 months of and up to 12 months after the estimated date of delivery (EDD).

---

## **Data analysis plan**

Pregnancy outcomes include spontaneous abortion and fetal deaths/stillbirths (pregnancy loss before and at or after 22 weeks gestation, resp), elective/therapeutic abortions and live births. The presence or absence of birth defects or other abnormalities is evaluated within each of the preceding outcome categories. Pregnancy outcomes are stratified by the (earliest) trimester of exposure, with an additional stratum for preconception exposure with no subsequent administration of vaccine during pregnancy. The calculations of risk for birth defects are made by dividing the number of infants with birth defects by the total number of infants reported. An exact 95% confidence interval is calculated using standard statistical software. The outcomes of the study will be assessed against known rates from an external reference group for the likelihood of a safety signal warranting further investigation. Spontaneous abortions without birth defects are excluded from the risk calculations.

## Documents

### Study results

[gsk-201476-clinical-study-report-redact.pdf](#) (8.02 MB)

---

### Study publications

[Nwoji U. Seasonal influenza vaccine exposure in pregnancy: 5-year results from](#)

...

---

## 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)**

[Drug dispensing/prescription data](#)  
[Drug registry](#)  
[Electronic healthcare records \(EHR\)](#)  
[Other](#)

---

### **Data sources (types), other**

Prospective patient-based data collection, Retrospective post-marketing reports and relevant scientific publications were potential sources of additional information.

## 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