

# ISICA - Case-Control Study on the Risk of Breast Cancer through Insulin Use

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Last update : 01/01/2019 | Version : 1 | ID : 9090

## General

### Identification

Detailed name	Case-Control Study on the Risk of Breast Cancer through Insulin Use
Sign or acronym	ISICA

### General Aspects

Medical area	Cancer research Endocrinology and metabolism Gynecology/ obstetrics
Pathology (details)	Breast cancer; diabetes
Health determinants	Medicine
Keywords	hormone treatment, insulin, glargine, aspart, lispro, cancer, diabetes, contraception

### Scientific investigator(s) (Contact)

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Unit

C121-SC of Vie-Pharma fourth group; U657  
Pharmacoepidemiology and Evaluation of the  
Impact of Health Products on the Population?  
Pasteur Institute

Organization

La-Ser

## Collaborations

## Funding

Funding status

Private

Details

Sanofi-Aventis, La-Ser

## Governance of the database

Sponsor(s) or organisation(s)  
responsible

Sanofi-Aventis

Organisation status

Private

Sponsor(s) or organisation(s)  
responsible

La-Ser

Organisation status

Private

## Additional contact

## Main features

## Type of database

Type of database

Study databases

Study databases (details)

Case control study

Database recruitment is carried  
out by an intermediary

A selection of health institutions and services

Database recruitment is made  
on the basis of:

Medication(s) taken

Database recruitment is carried  
out as part of an interventional  
study

No

Additional information regarding  
sample selection.

The case-control study was conducted using data  
collected from 92 major breast cancer treatment  
centres throughout France, United Kingdom and

Canada, as well as data from treating physicians, prescriptions and the patients themselves in order to minimise bias.

775 patients were selected from the hospital records for 40,000 patients diagnosed with breast cancer between 01 January 2008 and 30 June 2009 (89% primary invasive cancer, 47% TNM 1, 30% TNM2, 64% luminal tumours). Out of these 40,000 patients, diabetes cases were identified from anaesthesia records and confirmation of the disease by the patients themselves. 41% of these patients were eligibles and participated in the study. In all, 6.2% were living and being treated for diabetes.

Cancer-free diabetic controls were enrolled by their physicians (582 physicians) and matched according to age, recruitment date, country or region of origin, type of diabetes and management type.

## Database objective

### Main objective

The aim is to assess the possible relation between using individual insulins (duration of exposure, administered dosage) and increased breast cancer risk.

### Inclusion criteria

For case subjects:  
? Breast cancer diagnosed between 01 January 2008 and 30 June 2009  
? Diabetes confirmed by the patient and anaesthesia records.

For controls:  
? No breast cancer  
? Diabetes confirmed by the patient and anaesthesia records

## Population type

### Age

Adulthood (19 to 24 years)  
Adulthood (25 to 44 years)  
Adulthood (45 to 64 years)  
Elderly (65 to 79 years)

### Population covered

Sick population

### Gender

Woman

### Geography area

International

Detail of the geography area	France; Canada; United Kingdom
<b>Data collection</b>	
<b>Dates</b>	
Date of first collection (YYYY or MM/YYYY)	2008
Date of last collection (YYYY or MM/YYYY)	2009
<b>Size of the database</b>	
Size of the database (number of individuals)	[1000-10 000[ individuals
Details of the number of individuals	3,825
<b>Data</b>	
Database activity	Data collection completed
Type of data collected	Clinical data Declarative data Paraclinical data Biological data
Clinical data (detail)	Direct physical measures
Details of collected clinical data	History of diabetes; risk factor; prescriptions; data; detailed data on diabetes (type, age at diagnosis, duration, antidiabetes treatments); complications (renal, vascular, ophthalmological, and neurological). Information on history of breast and ovarian cancer; insulin therapy (glargine, aspart, lispro, and human insulin); hormone replacement therapy; motherhood; first menstruation; menopause; breastfeeding and oral contraception. Exposure to insulin.
Declarative data (detail)	Phone interview
Details of collected declarative data	Education; socioeconomic status; smoking, alcohol consumption and physical activity
Paraclinical data (detail)	Anaesthesia records for presence of diabetes.
Biological data (detail)	HbA1c
Presence of a biobank	No

Health parameters studied	Health event/morbidity Health care consumption and services
Care consumption (detail)	Medicines consumption
<b>Procedures</b>	
Participant monitoring	No
Links to administrative sources	No
<b>Promotion and access</b>	
<b>Promotion</b>	
Link to the document	<a href="http://www.ncbi.nlm.nih.gov/pubmed/23949559">http://www.ncbi.nlm.nih.gov/pubmed/23949559</a>
Link to the document	<a href="http://www.thelancet.com/journals/lancet/article/PIIS0140-6736%2810%2961374-8/fulltext">http://www.thelancet.com/journals/lancet/article/PIIS0140-6736%2810%2961374-8/fulltext</a>
<b>Access</b>	
Terms of data access (charter for data provision, format of data, availability delay)	Contact the scientist in charge.
Access to aggregated data	Access on specific project only
Access to individual data	Access on specific project only