# Pharmacokinetics and pharmacodynamics of insulin detemir (Levemir®) and insulin glargine (Lantus®) after subcutaneous injection of increasing doses into morbidly obese type 2 diabetic subjects

Submission date	Recruitment status  No longer recruiting	Prospectively registered		
07/04/2006		Protocol		
<b>Registration date</b> 09/05/2006	Overall study status Completed	Statistical analysis plan		
		[X] Results		
Last Edited	Condition category	Individual participant data		
01/02/2019	Nutritional, Metabolic, Endocrine			

# Plain English summary of protocol

Not provided at time of registration

# Contact information

# Type(s)

Scientific

#### Contact name

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# Additional identifiers

EudraCT/CTIS number

IRAS number

## ClinicalTrials.gov number

## Secondary identifying numbers

N/A

# Study information

#### Scientific Title

Pharmacokinetics and pharmacodynamics of insulin detemir (Levemir®) and insulin glargine (Lantus®) after subcutaneous injection of increasing doses into morbidly obese type 2 diabetic subjects

## Acronym

**INSULIN-KINETICS** 

## Study objectives

The primary aim of this study is to compare the dose-response relationship of moderate and of high doses of insulin detemir and of insulin glargine in severely obese type 2 diabetic subjects.

## Ethics approval required

Old ethics approval format

## Ethics approval(s)

Approved by the Local Ethics Committee of the University of Basel (EKBB) on 16/01/2003, reference number 295/05

## Study design

Randomized cross-over trial with 2 insulins (determir and glargine) and 2 dosages each

## Primary study design

Interventional

# Secondary study design

Randomised controlled trial

## Study setting(s)

Not specified

# Study type(s)

Treatment

## Participant information sheet

## Health condition(s) or problem(s) studied

Diabetes, obesity

#### **Interventions**

Application of insulin determir (Levemir) versus insulin glargine (Lantus)

# Intervention Type

## Drug

#### Phase

**Not Specified** 

# Drug/device/biological/vaccine name(s)

Insulin detemir (Levemir) and insulin glargine (Lantus)

## Primary outcome measure

Pharmacodynamics of the two insulins (detemir and glargine)

## Secondary outcome measures

- 1. Pharmacokinetics of the two insulins (detemir and glargine)
- 2. Correlation pharmacodynamics and (central) obesity

## Overall study start date

20/04/2006

## Completion date

30/04/2007

# **Eligibility**

## Key inclusion criteria

- 1. History of type 2 diabetes mellitus
- 2. Age 18-65 years
- 3. Body mass index >35 kg/m^2
- 4. HbA1c <10%

## Participant type(s)

**Patient** 

## Age group

Adult

## Lower age limit

18 Years

## Upper age limit

65 Years

#### Sex

Both

## Target number of participants

8-12

## Key exclusion criteria

1. Any severely active hepatic, cardiovascular, pulmonary, renal, neurological, musculoskeletal, hematological or endocrine disease

- 2. Pregnant or breast feeding women
- 3. Woman of childbearing potential not using a reliable method of birth control such as oral contraceptives or an intrauterine device (IUD)
- 4. Subjects refusing or unable to give written informed consent

## Date of first enrolment

20/04/2006

## Date of final enrolment

30/04/2007

# Locations

## Countries of recruitment

Switzerland

# Study participating centre University Hospital Basel

Basel Switzerland 4031

# Sponsor information

## Organisation

University Hospital Basel (Switzerland)

## Sponsor details

Division of Endocrinology, Diabetology and Clinical Nutrition University Hospital Basel Petersgraben 4 Basel Switzerland 4031 +41 (0)61 265 5078 puderj@uhbs.ch

## Sponsor type

University/education

## **ROR**

https://ror.org/04k51q396

# Funder(s)

# Funder type

Industry

## Funder Name

Novo Nordisk AG, Switzerland

## Funder Name

Foundations

# **Results and Publications**

## Publication and dissemination plan

Not provided at time of registration

Intention to publish date

Individual participant data (IPD) sharing plan

# IPD sharing plan summary

Not provided at time of registration

# **Study outputs**

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	16/08/2018	01/02/2019	Yes	No