

# An investigation of the efficacy of a single dose of insulin in the prevention of excessive cutaneous scarring in breast surgery patients

<b>Submission date</b> 03/08/2010	<b>Recruitment status</b> No longer recruiting	<input checked="" type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
<b>Registration date</b> 26/08/2010	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
<b>Last Edited</b> 17/01/2019	<b>Condition category</b> Surgery	<input type="checkbox"/> Individual participant data

**Plain English summary of protocol**  
Not provided at time of registration

## Contact information

**Type(s)**  
Scientific

**Contact name**  
Mr Charles Nduka

**Contact details**  
Queen Victoria Hospital NHS Foundation Trust  
Holtye Road  
E Grinstead  
United Kingdom  
RH19 3DZ

## Additional identifiers

**Protocol serial number**  
10-0001

## Study information

**Scientific Title**  
An investigation of the efficacy of a single dose of insulin in the prevention of excessive cutaneous scarring in breast surgery patients: a phase II randomised controlled clinical trial

**Acronym**

IBBS

**Study objectives**

Treatment of non-cancer bilateral breast surgery wounds with a single low-dose application of insulin will improve the appearance of scarring as compared to that seen under standard care.

**Ethics approval required**

Old ethics approval format

**Ethics approval(s)**

Not provided at time of registration

**Study design**

Randomised controlled phase II clinical trial

**Primary study design**

Interventional

**Study type(s)**

Treatment

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

Scarring in non-cancer bilateral breast surgery

**Interventions**

Administration by local injection of placebo (vehicle only) along the edge of a 3 cm length of one wound and 0.4 IU insulin to the other wound (randomised and double blinded) during surgery. Total duration of follow-up per patient is 12 months.

**Intervention Type**

Drug

**Phase**

Phase II

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

Insulin

**Primary outcome(s)**

Severity of scar formation, as measured by standardised and accepted methods of scar tissue grading such as the Manchester Scar Scale, image analysis of digital photographs, and volumetric measurement of scar prominence using silicone moulds taken of the scars. Measured at 1 - 2 weeks and 3, 6 and 12 months.

**Key secondary outcome(s)**

Hypertrophic scars, measured at 1 - 2 weeks and 3, 6 and 12 months.

**Completion date**

31/10/2012

# Eligibility

## Key inclusion criteria

1. Female patients aged 18 - 60 years
2. Undergoing non-cancer related bilateral breast surgery - this patient group has been chosen for two reasons: Firstly they have two identical wounds allowing an ideal intra-patient placebo control since scarring severity varies markedly not only between individuals but also between body sites. Secondly these wounds have a high tendency towards formation of excessive scarring.

## Participant type(s)

Patient

## Healthy volunteers allowed

No

## Age group

Adult

## Lower age limit

18 years

## Sex

Female

## Key exclusion criteria

1. Patients with diagnosed breast cancer
2. Patients with a history (either individual or familial) of keloid scarring (suspected to have a genetic component). Keloid scars are the most severe and pernicious form of pathological scarring that unlike hypertrophic scarring appear to behave in an almost cancer-like fashion invading the surrounding non-wounded normal tissue. The causes of this form of scarring are likely to be more complex and potentially multi-factorial. In addition this particular condition is thought to have a genetic link and might therefore introduce extra variables which might complicate correct analysis of results.
3. Younger than 18 or older than 60 (The rate of wound healing is known to be different within these two age groups)
4. Smokers - impairs wound healing
5. Any systemic illness that could have a theoretical interaction with the insulin administered such as diabetics, patients with renal or liver disease or endocrine tumours

Exclusion criteria 2 - 4 are designed to eliminate extra variables which might complicate correct analysis of results. These criteria are largely theoretical as patients who do exhibit any of these features are unlikely to be put forward for non-cancer related breast surgery.

## Date of first enrolment

31/10/2010

## Date of final enrolment

31/10/2012

# Locations

## Countries of recruitment

United Kingdom

England

## Study participating centre

Queen Victoria Hospital NHS Foundation Trust

E Grinstead

United Kingdom

RH19 3DZ

# Sponsor information

## Organisation

Pharmecosse Ltd (UK)

## ROR

<https://ror.org/011nmry48>

# Funder(s)

## Funder type

Industry

## Funder Name

Pharmecosse Ltd (UK)

# Results and Publications

## 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				

[Results article](#)

01/04/2018

17/01/2019

Yes

No