

# The efficacy, safety and tolerability of PSD502 in subjects with premature ejaculation (PE)

<b>Submission date</b>	<b>Recruitment status</b>	<input type="checkbox"/> Prospectively registered
13/01/2009	No longer recruiting	<input type="checkbox"/> Protocol
<b>Registration date</b>	<b>Overall study status</b>	<input type="checkbox"/> Statistical analysis plan
27/03/2009	Completed	<input checked="" type="checkbox"/> Results
<b>Last Edited</b>	<b>Condition category</b>	<input type="checkbox"/> Individual participant data
20/02/2019	Mental and Behavioural Disorders	

## Plain English summary of protocol

Not provided at time of registration

## Contact information

### Type(s)

Scientific

### Contact name

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## Additional identifiers

ClinicalTrials.gov (NCT)  
NCT00556478

Protocol serial number  
PSD502

## Study information

## **Scientific Title**

A phase IIb, multicentre, randomised, double-blind, placebo-controlled study, with open-label follow on, to evaluate the efficacy, safety and tolerability of PSD502 in subjects with premature ejaculation (PE)

## **Study objectives**

PSD502 is a metered dose spray containing a mixture of lidocaine and prilocaine which is under development by Plethora Solutions Ltd as a topical anaesthetic treatment for premature ejaculation (PE). The spray is applied to the glans penis a short time prior to intercourse. Most studies evaluating treatments for PE include intravaginal ejaculatory latency times (IELT) in the definition of PE. It has been estimated that PE affects 30 - 40% of the male population, but is paradoxically a condition for which they are least likely to seek help. Men with PE exhibit abnormal autonomic reflex pathways for the ejaculatory process. These include lower vibratory threshold to ejaculation, shorter bulbocavernous latency time and higher bulbocavernous evoked potentials. Reducing this heightened sensitivity of the glans with topical anaesthetics might therefore be a way of improving IELT, without adversely affecting the sensation of ejaculation.

Although IELT is an objective measure of ejaculatory function it does not address the impact of therapy on patients' well being and confidence in their sexual performance, which are important markers of treatment benefit. Therefore, if IELT is used as a sole efficacy measure it may not fully characterise the treatment benefit to the patient. For this reason in this study, a patient reported outcome (PRO) known as the Index of Premature Ejaculation will be used in conjunction with IELT to evaluate efficacy. Thus the combination of the objective measure of ejaculatory latency with the PRO of IPE should be able to provide efficacy data which are representative of clinical benefit to the patient.

The use of lidocaine, prilocaine and EMLA® cream as topical anaesthetics is well established. Many years of experience of use in large numbers of patients, as well as comprehensive non-clinical safety testing programs for various formulations of lidocaine and prilocaine exist, to support their safety and tolerability. This information, together with the clinical data from three studies with PSD502 (ANAE-059-00, PSD502-PE-001, and PSD502-PE-003), suggest that PSD502 may have beneficial effects in reducing penile sensation and prolonging IELT, and its use is unlikely to be associated with significant clinical safety or tolerability concerns.

The aim of this study is to provide additional placebo-controlled efficacy data to establish the clinical utility of PSD502 in the treatment of PE. In addition, long term open-label efficacy and safety data will be collected, to further support the registration package for PSD502 in the indication of treatment of PE.

## **Ethics approval required**

Old ethics approval format

## **Ethics approval(s)**

1. Poland: Local Medical Ethics Committee (Komisja Bioetyczna Uniwersytetu Medycznego), 25 /09/2008, ref: R-I-002/281/2008
2. USA: Schulman Associates Institutional Board, 17/10/2008, ref: IRB # 07-4087-0
3. Canada: Trafalgar Ethics Board, 04/10/2008, ref: IRB# 07-023

## **Study design**

Phase IIb multicentre randomised double-blind placebo-controlled study

**Primary study design**

Interventional

**Study type(s)**

Treatment

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

Premature ejaculation

**Interventions**

PSD502 is a metered dose aerosol spray that delivers a eutectic mixture of lidocaine and prilocaine. The placebo is a metered dose aerosol spray that is identical in appearance to PSD502 spray and contains the same propellant. Subjects will be randomised to PSD502 or placebo in a 2:1 ratio. A single dose of PSD502 or placebo consist of three sprays applied to the glans penis. Subjects will continue for a three-month double-blind treatment followed by 5 months of open-label treatment.

**Intervention Type**

Drug

**Phase**

Phase II/III

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

PSD502 (containing lidocaine and prilocaine)

**Primary outcome(s)**

Current information as of 28/01/2010:

To evaluate efficacy of treatment with PSD502 compared with placebo in subjects with PE as measured by:

1. Changes in mean IELT from baseline to during three-month double-blind treatment
2. Changes in all IPE domains from baseline to month three

Initial information at time of registration:

To evaluate efficacy of treatment with PSD502 compared with placebo in subjects with PE as measured by:

1. Changes in mean IELT from baseline to during three-month double-blind treatment
2. Changes in selected IPE domains from baseline to month three

**Key secondary outcome(s))**

Current information as of 28/01/2010:

1. Proportion of subjects with short mean IELT during the three months of double-blind treatment
2. Relationship between IELT and IPE
3. Change in mean IELT from baseline
4. Subject and partner PEP scores
5. Evaluation of the safety and tolerability of PSD502 compared with placebo in subjects with PE as measured by adverse events (AE) and serious adverse events (SAE) data for both the subject and his sexual partner, collected throughout the study

**Initial information at time of registration:**

1. Change in selected IPE domains from baseline to three months
2. Proportion of subjects with short mean IELT during the three months of double-blind treatment
3. Relationship between IELT and IPE
4. Change in mean IELT from baseline
5. Subject and partner PEP scores
6. Evaluation of the safety and tolerability of PSD502 compared with placebo in subjects with PE as measured by adverse events (AE) and serious adverse events (SAE) data for both the subject and his sexual partner, collected throughout the study

**Completion date**

14/10/2009

## Eligibility

**Key inclusion criteria**

Current information as of 28/01/2010:

A subject will be considered suitable for the study if he fulfills all of the following criteria:

1. Willing and able to provide written informed consent
2. Male, aged 18 years and over
3. Diagnosed with PE according to Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM-IV) criteria and International Society for Sexual Medicine (ISSM) definition
4. Diagnosed with lifelong PE
5. Acceptable response to screening Premature Ejaculation Profile (PEP)
6. Subject must be in a stable heterosexual and monogamous relationship and their partner must provide consent
7. Acceptable sexual encounters in the baseline period

**Initial information at time of registration:**

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1. Willing and able to provide written informed consent
2. Male, aged 18 years and over
3. Diagnosed with PE
4. Acceptable response to screening Premature Ejaculation Profile (PEP)
5. Subject must be in a stable heterosexual and monogamous relationship and their partner must provide consent
6. Acceptable sexual encounters in the baseline period

**Participant type(s)**

Patient

**Healthy volunteers allowed**

No

**Age group**

Adult

**Lower age limit**

18 years

**Sex**

Male

**Key exclusion criteria**

A subject, or his sexual partner where stated, who fulfil any of the following criteria will be excluded from the study:

1. Subject, or his sexual partner, has received an investigational (non-registered) drug within 30 days of screening
2. Subject has erectile dysfunction
3. The subject, or his sexual partner, has a physical or psychological condition that would prevent them from undertaking the study procedures, including, but not limited to, the following:
  - 3.1. Urological disease
  - 3.2. Ongoing significant psychiatric disorder not controlled by medication
  4. Subject has safety testing abnormalities at the screening visit
  5. Subjects taking excluded medications or receiving any treatment for PE
  6. Subject, or his sexual partner, has a current history of alcohol or drug abuse
  7. The subject, or his sexual partner, is unlikely to understand or be able to comply with study procedures, for whatever reasons
  8. Subject, or his sexual partner, has known drug sensitivity to amide-type local anaesthetics
  9. Subjects with pregnant partners
  10. Subject with sexual partners of child-bearing potential and not using appropriate contraception
  11. Subject, or his sexual partner, has a history of glucose-6-phosphate dehydrogenase (G6PD) deficiency or use of medications that would increase susceptibility to methemoglobinæmia
  12. Subject, or his sexual partner, uses class I (e.g. mexiletine, tocainide) or III (e.g. amiodarone, sotalol) anti-arrhythmic drugs

**Date of first enrolment**

24/10/2007

**Date of final enrolment**

14/10/2009

## Locations

**Countries of recruitment**

Canada

Poland

United States of America

**Study participating centre**

**University of North Carolina**

North Carolina

United States of America

27599-7254

# Sponsor information

## Organisation

Plethora Solutions Ltd (UK)

## ROR

<https://ror.org/02y9vw172>

## Funder(s)

### Funder type

Industry

### Funder Name

Sciele Pharma, Inc (USA)

### Funder Name

Plethora Solutions 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?
<a href="#">Results article</a>	results	01/09/2010	20/02/2019	Yes	No
<a href="#">Participant information sheet</a>	Participant information sheet	11/11/2025	11/11/2025	No	Yes