

# An international study looking at the treatment of cancer of the penis that has spread to inguinal or pelvic lymph nodes

<b>Submission date</b> 05/06/2017	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
<b>Registration date</b> 13/09/2017	<b>Overall study status</b> Ongoing	<input type="checkbox"/> Statistical analysis plan <input type="checkbox"/> Results
<b>Last Edited</b> 13/05/2025	<b>Condition category</b> Cancer	<input type="checkbox"/> Individual participant data <input checked="" type="checkbox"/> Record updated in last year

## Plain English summary of protocol

<https://www.cancerresearchuk.org/about-cancer/find-a-clinical-trial/a-study-looking-at-treatment-of-cancer-of-the-penis-that-has-spread-to-the-lymph-nodes-inpact>

## Study website

<http://www.icr.ac.uk/our-research/our-research-centres/clinical-trials-and-statistics-unit/clinical-trials/inpact>

## Contact information

### Type(s)

Public

### Contact name

Ms Stephanie Burnett

### Contact details

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## Additional identifiers

### EudraCT/CTIS number

2015-001199-23

**IRAS number**

168344

**ClinicalTrials.gov number**

NCT02305654

**Secondary identifying numbers**

CPMS 32594

## **Study information**

**Scientific Title**

InPACT - International Penile Advanced Cancer Trial (International Rare Cancer Initiative)

**Acronym**

InPACT

**Study objectives**

The aim of the study is to examine the combination and sequence of four treatments for men with locally advanced penis cancer. The study will assess whether ILND surgery after neoadjuvant chemotherapy or chemoradiotherapy is better than surgery alone, and whether there is any added benefit from removing the pelvic lymph nodes or not.

**Ethics approval required**

Old ethics approval format

**Ethics approval(s)**

London Riverside ethics committee, 17/10/2016, ref: 16/LO/1355

**Study design**

Randomised; Interventional; Design type: Treatment, Drug, Radiotherapy, Surgery

**Primary study design**

Interventional

**Secondary study design**

Randomised controlled trial

**Study setting(s)**

Hospital

**Study type(s)**

Treatment

**Participant information sheet**

Not available in web format, please use the contact details to request a patient information sheet

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

## Penis cancer

### Interventions

Patients will receive up to 4 treatments in different sequences. Randomisation process: Sequential randomisation by minimisation.

Treatment 1: Inguinal lymph node dissection (ILND)

Methodology: Standard of care surgery performed utilizing open approach

Total duration of treatment: 1 day

Treatment 2: Chemotherapy

Methodology: neoadjuvant chemotherapy before surgery (ILND)

Generic drug name: Paclitaxel, Ifosfamide, Cisplatin (TIP)

The dosage given: Paclitaxel 175 mg/m<sup>2</sup>/cycle, Ifosfamide 3600 mg/m<sup>2</sup>/cycle, Cisplatin 75 mg/m<sup>2</sup>/cycle

Method of administration: Intravenous infusion

Frequency of administration: The inpatient regimen of TIP is administered over 3 days repeated in 21-day cycles. The outpatient regimen is administered over 5 days repeated in 21-day cycles

Total duration of treatment: 12 weeks (4 21-day cycles)

Treatment 3: Chemoradiotherapy

Methodology: neoadjuvant chemoradiotherapy before surgery (ILND) OR adjuvant chemoradiotherapy after pelvic lymph node dissection

Generic drug name: Cisplatin

The dosage given: Concurrent cisplatin at 40 mg/m<sup>2</sup> weekly

Radiotherapy in the neoadjuvant setting: the radiotherapy dose is 45Gy in 25 fractions over 5 weeks using 6-10 MV photons to all regions.

Radiotherapy in the adjuvant setting:

Groin: One or both groins may be boosted up to 54Gy in 25 fractions. An IMRT boost of up to 57 Gy can be given to recurrent or residual macroscopic tumour

Pelvis: An IMRT boost of up to 54Gy in 25 fractions is applied to:

1. Any macroscopic tumour or pathological lymph nodes
2. Electively to external iliac nodes in patient with high disease burden

Method of administration: Concurrent cisplatin is given via intravenous infusion. Radiotherapy is to be delivered with either a forward planned IMRT technique or inverse planned IMRT, performed using the local treatment planning system. Rotational arc therapies are permitted (Rapid Arc™, VMAT™ and Tomotherapy™).

Frequency of administration: Concurrent cisplatin is given once a week, radiotherapy is given 5 days a week

Total duration of treatment: 5 weeks

Treatment 4: Pelvic lymph node dissection

Methodology: prophylactic pelvic lymph node dissection performed utilizing open, laparoscopic or robot-assisted laparoscopic approaches

Total duration of treatment: 1 day

Follow-up: All patients will undergo clinical review in accordance with the guidelines of the European Association of Urology (EAU), namely every 3 months for years 1 and 2, then every 6 months for years 3, 4 and 5, from the start of their treatment

### Intervention Type

Mixed

## **Primary outcome measure**

Survival time, defined in whole days as the time from the date of randomisation to the date of death from any cause; for those who have not been reported as dead at the time of analysis, the survival time will be censored at the date of last follow-up.

## **Secondary outcome measures**

Secondary outcome measures for all patients:

1. Disease-specific survival time, defined in whole days as the time from the date of randomisation to the date of death specifically from penis cancer; for those who have not been reported as dead at the time of analysis, the survival time will be censored at the date of last follow-up and for those whose death is reported as non-disease specific then the survival time will be censored at date of death
2. Disease-free survival time (DFS), defined in whole days as the time from date of randomisation to the date of either locoregional recurrence, distant metastasis or death from penis cancer, whichever occurs first; for those who have not been reported as experiencing any of these events, the DFS time will be censored at the date last known to be alive and free of disease or date of non-disease-specific death. A supplementary exploratory outcome measure will also be calculated taking date of penectomy as the origin rather than date of randomisation. A subsidiary outcome measure will be locoregional recurrence free survival time (LRFST) which is defined in whole days as the time from date of randomisation to the date of locoregional recurrence; for those who have not been reported with this event, the LRFST will be censored at the date last known to be alive and free of disease
3. A subsidiary outcome measure will be distant metastases free survival time (DMFST), defined in whole days as the time from date of randomisation to the date of distant metastasis or death from disease, whichever occurs first; for those who have not been reported as experiencing either of these events, the DMFST will be censored at the date last known to be alive and free of distant metastasis or date of non-disease-specific death. A supplementary exploratory outcome measure will also be calculated taking date of penectomy as the origin for all these outcome measures rather than date of randomisation
4. Toxicity; all events experienced by patients are recorded and graded using CTCAE Version 4 criteria and specifically the occurrence of at least one grade 3 or 4 event
5. Occurrence of surgical complications, recorded as whether or not a surgical complication was experienced according to the Modified Clavien-Dindo Classification criteria
6. Feasibility of pathological nodal assessment after chemotherapy, recorded as whether or not it was possible to achieve a pathological nodal assessment after chemotherapy
7. Quality of life (in participating patients), measured using the EORTC-QLQC30 and Lymphodema-QL on 8 occasions: prior to randomisation, 3-monthly during year 1, 6-monthly during year 2, and at the end of year 3

Secondary outcome measures measured for all trial patients in InPACT-neoadjuvant:

1. Occurrence of pathological complete remission, defined as an absolute absence of disease on histological examination in accordance with the Royal College of Pathologists' guidelines
2. Operability, recorded as whether or not the planned inguinal node dissection was undertaken and the reasons if it did not occur
3. Feasibility of on-schedule delivery of neoadjuvant therapy

Secondary outcome measures for all trial patients in InPACT-pelvis:

1. Occurrence of lower limb/scrotal oedema, recorded as whether or not the patient experiences a lower limb or scrotal oedema according to CTCAE Version 4 criteria

**Overall study start date**

01/02/2011

**Completion date**

30/11/2027

## Eligibility

**Key inclusion criteria**

1. Male, aged 18 years or older
2. Histologically-proven squamous cell carcinoma of the penis
3. Stage:
  - 3.1. Any T, N1 (i.e. a palpable mobile unilateral inguinal lymph node), M0 or
  - 3.2. Any T, N2 (i.e. palpable mobile multiple or bilateral inguinal lymph nodes), M0 or
  - 3.3. Any T, N3 (i.e. fixed inguinal nodal mass or any pelvic lymphadenopathy), M0
4. Measurable disease as determined by RECIST (version 1.1) criteria
5. Performance Status ECOG 0, 1 or 2
6. Patient is fit to receive the randomisation options for which he is being considered
7. Haematology/biochemistry (as dictated by local hospital practice) should indicate fitness for randomisation options and parameters should be in line with considerations specified in the summary of product characteristics. Haematological parameters should not be supported by transfusion to enable entry into the trial. Liver function and renal function tests must form part of the pre-treatment assessment for patients who may be randomised to receive TIP chemotherapy e.g. patients with impaired renal function may not be considered for arms B and C of InPACT-neoadjuvant but may be considered for arm A
8. Willing and able to comply with follow-up schedule
9. Written informed consent

**Participant type(s)**

Patient

**Age group**

Adult

**Lower age limit**

18 Years

**Sex**

Male

**Target number of participants**

Planned Sample Size: 200; UK Sample Size: 49

**Key exclusion criteria**

Patients who have any of the following are not eligible:

1. Pure verrucous carcinoma of the penis
2. Non-squamous malignancy of the penis
3. Squamous carcinoma of the urethra
4. Stage M1
5. Previous chemotherapy or chemoradiotherapy outside of the InPACT trial

6. Concurrent malignancy (other than SCC or Basal Cell Carcinoma of non-penile skin) that has required surgical or non-surgical treatment in the last 3 years
7. Patients who are sexually active and unwilling to use effective contraception (if they are not already surgically sterile)

**Date of first enrolment**

15/05/2017

**Date of final enrolment**

31/05/2025

## **Locations**

**Countries of recruitment**

England

United Kingdom

Wales

**Study participating centre**

**St George's Hospital**

Blackshaw Road

London

United Kingdom

SW17 0QT

**Study participating centre**

**The Royal Marsden Hospital**

Downs Road

Sutton

United Kingdom

SM2 5PT

**Study participating centre**

**Leicester General Hospital**

Gwendolen Road

Leicester

United Kingdom

LE5 4PW

**Study participating centre**

**Norfolk and Norwich University Hospital**  
Colney Lane  
Colney  
Norwich  
United Kingdom  
NR4 7UY

**Study participating centre**  
**Velindre Hospital**  
Velindre Road  
Cardiff  
United Kingdom  
CF14 2TL

**Study participating centre**  
**Morriston Hospital**  
Heol Maes Eglwys  
Cwmrhydyceirw  
Swansea  
United Kingdom  
SA6 6NL

## **Sponsor information**

**Organisation**  
Institute of Cancer Research

**Sponsor details**  
The Institute of Cancer Research  
Clinical Trials & Statistics Unit (ICR-CTSU)  
London  
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SM2 5NG

**Sponsor type**  
Research organisation

**Website**  
<https://www.icr.ac.uk/our-research/centres-and-collaborations/centres-at-the-icr/clinical-trials-and-statistics-unit/clinical-trials/inpact>

**ROR**  
<https://ror.org/043jzw605>

# Funder(s)

## Funder type

Charity

## Funder Name

Cancer Research UK

## Alternative Name(s)

CR\_UK, Cancer Research UK - London, CRUK

## Funding Body Type

Private sector organisation

## Funding Body Subtype

Other non-profit organizations

## Location

United Kingdom

# Results and Publications

## Publication and dissemination plan

The main trial results will be published in peer reviewed scientific journals on behalf of all collaborators.

## Intention to publish date

31/12/2028

## Individual participant data (IPD) sharing plan

The datasets generated during and/or analysed during the current study are/will be available upon request from [inpact-icrctsu@icr.ac.uk](mailto:inpact-icrctsu@icr.ac.uk).

## IPD sharing plan summary

Available on request

## Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Other publications</a>		01/06/2019	10/05/2022	Yes	No
<a href="#">HRA research summary</a>			28/06/2023	No	No
<a href="#">Other publications</a>		01/04/2025	13/05/2025	Yes	No