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A comparison of pelvic extended nodal irradiation and stereotactic body radiotherapy for patients with recurrent prostate cancer

Submission date
11/06/2024

Recruitment status
Recruiting

Registration date
23/09/2024

Overall study status
Ongoing

Last Edited
17/01/2025

Condition category
Cancer

[X] Prospectively registered
[X] Protocol
[_] Statistical analysis plan
[_] Results
[_] Individual participant data
[X] Record updated in last year

Plain English summary of protocol

Background and study aims
Prostate cancer can come back after previous treatment with surgery or radiotherapy in glands (known as lymph nodes) in the pelvis, which is what happened to you. When this happens, there are different treatments that could be used for your cancer, but we do not know for certain which treatment is best. The POINTER-PC study is trying to work this out.

Who can participate?
All participants approached about this study have prostate cancer which has come back in lymph glands in their pelvis.

What does the study involve?
Two different types of radiotherapy could be used. The gland(s) could be treated with focused radiotherapy given in a small number of treatments (5 treatments), which is called stereotactic body radiotherapy (SBRT). Or, both the surrounding pelvis as well as the gland(s) known to be cancerous could be treated with radiotherapy. This is known as pelvis radiotherapy.

What are the possible benefits and risks of participating?
This study will compare pelvis radiotherapy with SBRT to see which is better at stopping the cancer from coming back again. Pelvis radiotherapy is usually given in 20 treatments, but it could be shortened to give it in 5 treatments instead. In the study, we will also check if pelvis radiotherapy can be safely given in 5 treatments instead of 20 treatments. Pelvis radiotherapy might be better than SBRT at stopping the cancer coming back again in the pelvis or in another part of the body. SBRT and pelvis radiotherapy in either 5 or 20 treatments can have side effects. Hormone therapies and chemotherapy also carry a risk of side effects.

Where is the study run from?
The Clinical Trials Research Unit at the University of Leeds (UK)

When is the study starting and how long is it expected to run for?
October 2023 to November 2031

Who is funding the study?
Yorkshire Cancer Research (UK)

Who is the main contact?
The POINTER-PC trial team at POINTERPC@leeds.ac.uk

Contact information

Type(s)
Principal Investigator

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Type(s)
Public, Scientific

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Additional identifiers

EudraCT/CTIS number
Nil known

IRAS number
327827

ClinicalTrials.gov number
Nil known

Secondary identifying numbers
CPMS 62335, CRCPSC-Jul23/100003

Study information

Scientific Title
Pelvis Or Involved Node Treatment: Eradicating Recurrence in Prostate Cancer (POINTER-PC)

Acronym
POINTER-PC

Study objectives
Objectives:
1. To compare ENI (ENI-20 and ENI-5) with SBRT for the endpoint of Metastatic free survival.
2. To compare ENI-5 with ENI-20 for the endpoint of patient reported outcome measure (PROM)-assessed late bowel toxicity at 3 years.

Ethics approval required
Ethics approval required

Ethics approval(s)
Approved 22/05/2024, East of England – Cambridgeshire and Hertfordshire Research Ethics Committee (2 Redman Place, Stratford, London, E20 1JQ, United Kingdom; +44 20 7104 8096; cambsandherts.rec@hra.nhs.uk), ref: 24/EE/0099

Study design
Interventional; Design type: Treatment, Radiotherapy

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
Prostate cancer

Interventions
All participants will receive 12 months of hormone therapy, Androgen Deprivation Therapy (ADT), starting either on the first day of radiotherapy or up to one month before radiotherapy starts.

A computer-generated minimisation program that incorporates a random element will be used to ensure the treatment groups are well-balanced for the following factors:

Number of pelvic nodal recurrences
The type of PET-CT at diagnosis of recurrence
Whether the participant is planned for systemic anticancer therapy in addition to ADT (docetaxel /second-generation androgen receptor antagonist or androgen biosynthesis inhibitor) versus none
Randomisation will be performed centrally using the CTRU automated 24-hour randomisation system. Following confirmation of written informed consent and eligibility, participants will be randomised to receive either stereotactic body radiotherapy, pelvis radiotherapy in 5 fractions, or pelvis radiotherapy in 20 fractions on a 2:1:1 basis, respectively.

Prior to treatment:
Participants will be assessed for their toxicity levels before treatment begins. They will also be required to complete two questionnaires to assess their status and quality of life. Samples for translational research purposes, including blood and tissue samples, will be collected at this time. Consent for blood samples is optional and will be confirmed with the CTRU. Blood samples will be taken at three time points: prior to treatment, upon completion of treatment, and 3 months after radiotherapy. Consent for providing tissue blocks is mandatory, and participants must agree to the collection and sending of tissue blocks to external labs to participate in the study. One FFPE original biopsy or prostatectomy specimen tissue block will be collected at baseline.

On treatment:
Depending on randomisation, participants will receive either stereotactic body radiotherapy or pelvis radiotherapy in 5 or 20 fractions.

Stereotactic body radiotherapy: 30-40 Gy in 5 fractions delivered on alternate days over 2 weeks, targeting the involved nodes.
Pelvis radiotherapy in 5 fractions: 25 Gy in 5 fractions plus a simultaneous integrated boost of 30-40 Gy, delivered on alternate days over 2 weeks, targeting the pelvic nodal area.
Pelvis radiotherapy in 20 fractions: 44 Gy in 20 fractions plus a simultaneous integrated boost of 54 Gy to macroscopically involved node(s), delivered daily over 4 weeks, targeting the pelvic nodal area.
Treatments will be delivered using intensity-modulated RT (IMRT) with daily online image guidance. Additional systemic anticancer therapies (docetaxel/second-generation androgen receptor antagonist or androgen biosynthesis inhibitor) will be allowed post-radiotherapy. The radiotherapy will be delivered Monday to Friday for either 2 or 4 weeks, depending on the treatment.

End of treatment:
Participants will be assessed for toxicity at the end of treatment, and a clinical assessment will be performed. Optional translational blood samples will also be taken at this time.

Follow-up assessments:
Follow-up visits will take place 2 weeks, 6 weeks, 3, 6, 12, 18, 24, 30, and 36 months after the conclusion of radiotherapy. These visits may be conducted in person or over the phone. For phone visits, the participant’s GP will need to perform a PSA blood test and, if consented to, collect a blood sample before the appointment. Reminders for completing the quality-of-life questionnaires will be sent 2 weeks and 4 weeks after the initial link is sent, if the questionnaire has not been completed. Data collection will include:

A clinical assessment at every follow-up visit
Toxicity assessments at 2 weeks, 6 weeks, 3, 6, 12, 18, 24, 30, and 36 months
Health-related quality of life questionnaires at 2 weeks, 3, 6, 12, 24, and 36 months (reminders will be sent as needed)
Optional translational blood samples at 3 months
PSA blood tests at 6 weeks, 3, 6, 12, 18, 24, 30, and 36 months (standard care)
Data analysis:
The statistical analysis will be conducted by CTRU statisticians. A detailed statistical analysis plan will be written before any analysis is undertaken, following CTRU standard operating procedures. The primary endpoint analysis will take place once the final participant reaches their primary endpoint (3 years post-treatment) and once all data have been collected and cleaned.

There will be no formal interim analyses, but an independent data monitoring and ethics committee will review interim safety and accrual data to monitor trial progress. Procedures are in place to detect and address potential "researcher effects" and "researcher bias."

Intervention Type
Biological/Vaccine

Pharmaceutical study type(s)
Not Applicable

Phase
Phase III

Drug/device/biological/vaccine name(s)
Androgen Deprivation Therapy

Primary outcome measure
Current primary outcome measure as of 06/11/2024:
1. Metastatic free survival (defined as time from randomisation to progression of the treated node(s), new nodal, bone or visceral metastatic disease, or death due to Prostate Cancer (PCa)) measured using patient records
2. PROM-assessed late bowel toxicity at 3 years, measured using the Expanded Prostate Cancer Index Composite 26-item questionnaire (EPIC-26) bowel function sub-domain.

Previous primary outcome measure:
Metastatic free survival (defined as the time from randomisation to progression of the treated node(s), new nodal, bone or visceral metastatic disease, or death due to Prostate Cancer (PCa)) measured using patient records

Secondary outcome measures
Current secondary outcome measure as of 06/11/2024:
1. Overall survival (defined as the time from randomisation to death from any cause)
2. Biochemical progression-free survival (bPFS, defined as ≥2 ng/ml increase in PSA above the nadir value achieved after completion of RT)
3. Failure-free survival (defined as the time from randomisation to biochemical failure, the commencement of further anticancer therapy for PCa, further nodal, bone or visceral metastases or death from PCa)
4. Patterns of failure: Local, treated-node(s), other regional/ pelvic lymph node(s), para-aortic

lymph node(s), other extra-pelvic lymph node(s), bone metastasis, visceral metastasis (liver, lung), other metastasis
5. Urinary and bowel toxicities, measured using the relevant EPIC-26 function and other sub-domains at baseline and 2 weeks, 3 months, 12 months, 24 months and 36 months post-RT
6. Health-Related Quality of Life (HRQoL), measured using EORTC QLQ-C30 at baseline and 2 weeks, 3 months, 12 months, 24 months and 36 months post-RT
7. Clinician-reported toxicity at baseline, 2 weeks, 6 weeks, 3 months, 6 months, 12 months, 18 months, 24 months, 30 months and 36 months post-RT and maximum acute (≤3 months) and late (>3 months) bowel and urinary toxicity, measured using CTCAE v5.0

Previous secondary outcome measure:
PROM-assessed late bowel toxicity at 3 years, measured using the Expanded Prostate Cancer Index Composite 26-item questionnaire (EPIC-26) bowel function sub-domain.

Overall study start date
01/10/2023

Completion date
30/11/2031

Eligibility

Key inclusion criteria
Current participant inclusion criteria as of 06/11/2024:
1. Age >=18 years, male
2. Histological diagnosis of prostate adenocarcinoma
3. Previous primary prostate cancer (PCa) treatment (radical prostatectomy [RP], primary/ post-operative radiotherapy [RT] or brachytherapy without previous pelvic nodal RT)
4. Maximum of three PET-CT (PSMA or Choline PET-CT) defined macroscopically-involved pelvic lymph nodes (upper limit of the pelvis is defined as the aortic bifurcation) within 6 months prior to randomisation
5. World Health Organisation (WHO) performance status 0-2
6. Willing to be randomised to stereotactic body radiotherapy (SBRT), ENI-5 or ENI-20
7. Patients must be able to provide study-specific written informed consent
8. Prepared to participate in follow-up by telephone or in-person

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Participant type(s)
Patient

Age group
Adult

Lower age limit
18 Years

Sex
Male

Target number of participants
Planned Sample Size: 480; UK Sample Size: 480

Key exclusion criteria
1. Previous pelvic nodal radiotherapy
2. Contraindications to SBRT or ENI (e.g. inflammatory bowel disease)
3. Contraindications to ADT
4. Local recurrence in the prostate gland
5. Para-aortic nodal metastases (above the aortic bifurcation)
6. Meso-rectal nodal metastases
7. Bone or visceral metastases
8. Severe late toxicity relating to primary/post-operative RT
9. Other active malignancy (except non-melanoma skin cancer or other malignancy with a documented disease-free survival for a minimum of 3 years before randomisation)
10. Castrate-resistant disease

Date of first enrolment
01/12/2024

Date of final enrolment
30/11/2028

Locations

Countries of recruitment
England

Northern Ireland

Scotland

United Kingdom

Study participating centre
The Christie NHS Foundation Trust
550 Wilmslow Road
Withington
Manchester
United Kingdom
M20 4BX

Study participating centre
Cambridge University Hospitals NHS Foundation Trust
Cambridge Biomedical Campus
Hills Road
Cambridge
United Kingdom
CB2 0QQ

Study participating centre
Belfast Health and Social Care Trust
Trust Headquarters
A Floor - Belfast City Hospital
Lisburn Road
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United Kingdom
BT9 7AB

Study participating centre
University Hospitals Birmingham NHS Foundation Trust
Queen Elizabeth Hospital
Mindelsohn Way
Edgbaston
Birmingham
United Kingdom
B15 2GW

Study participating centre
University Hospitals Bristol and Weston NHS Foundation Trust
Trust Headquarters
Marlborough Street
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BS1 3NU

Study participating centre
The Clatterbridge Cancer Centre NHS Foundation Trust
Clatterbridge Hospital
Clatterbridge Road
Bebington
Wirral

United Kingdom
CH63 4JY

Study participating centre
NHS Lothian
Waverley Gate
2-4 Waterloo Place
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EH1 3EG

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249 Westminster Bridge Road
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United Kingdom
SE1 7EH

Study participating centre
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Hull Royal Infirmary
Anlaby Road
Hull
United Kingdom
HU3 2JZ

Study participating centre
South Tees Hospitals NHS Foundation Trust
James Cook University Hospital
Marton Road
Middlesbrough
United Kingdom
TS4 3BW

Study participating centre
Leeds Teaching Hospitals NHS Trust
St. James's University Hospital
Beckett Street
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LS9 7TF

Study participating centre
United Lincolnshire Hospitals NHS Trust
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Greetwell Road
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LN2 5QY

Study participating centre
East and North Hertfordshire NHS Trust
Lister Hospital
Coreys Mill Lane
Stevenage
United Kingdom
SG1 4AB

Study participating centre
Somerset NHS Foundation Trust
Trust Management
Lydeard House
Musgrove Park Hospital
Taunton
United Kingdom
TA1 5DA

Study participating centre
The Newcastle upon Tyne Hospitals NHS Foundation Trust
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Freeman Road
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Newcastle upon Tyne
United Kingdom
NE7 7DN

Study participating centre
Norfolk and Norwich University Hospitals NHS Foundation Trust
Colney Lane
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Norwich
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NR4 7UY

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North Middlesex University Hospital NHS Trust
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Study participating centre
Royal Surrey County Hospital NHS Foundation Trust
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Study participating centre
Torbay and South Devon NHS Foundation Trust
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TQ2 7AA

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PR2 9HT

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TR1 3LJ

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SS0 0RY

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The Royal London Hospital
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E1 2ES

Study participating centre
York and Scarborough Teaching Hospitals NHS Foundation Trust
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YO31 8HE

Study participating centre

Maidstone and Tunbridge Wells NHS Trust
The Maidstone Hospital
Hermitage Lane
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ME16 9QQ

Study participating centre
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The Bays
St Marys Hospital
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W2 1BL

Sponsor information

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University of Leeds

Sponsor details
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Sponsor type
University/education

Website
http://www.leeds.ac.uk/

ROR
https://ror.org/024mrxd33

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

Funder Name
Yorkshire Cancer Research

Results and Publications

Publication and dissemination plan
Planned publication in a peer-reviewed journal

Intention to publish date
01/11/2031

Individual participant data (IPD) sharing plan
After the final trial results publication, researchers may request access to data from the POINTER-PC Trial Management Group and Leeds Cancer Research UK Clinical Trials Unit.

IPD sharing plan summary
Available on request

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Protocol article		26/12/2024	17/01/2025	Yes	No