

CORE Trial

Submission date 19/09/2016	Recruitment status No longer recruiting	<input type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
Registration date 02/11/2016	Overall study status Completed	<input type="checkbox"/> Statistical analysis plan <input type="checkbox"/> Results
Last Edited 16/01/2020	Condition category Cancer	<input type="checkbox"/> Individual participant data <input type="checkbox"/> Record updated in last year

Plain English summary of protocol

<https://www.cancerresearchuk.org/about-cancer/find-a-clinical-trial/a-trial-looking-stereotactic-body-radiotherapy-for-breast-prostate-non-small-cell-lung-cancer-core>

Contact information

Type(s)

Scientific

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Additional identifiers

Clinical Trials Information System (CTIS)

Nil known

ClinicalTrials.gov (NCT)

NCT02759783

Protocol serial number

31452

Study information

Scientific Title

CORE: A randomized trial of conventional care versus radioablation (stereotactic body radiotherapy) for extracranial oligometastases

Acronym

CORE

Study objectives

The principal aim of the trial is to assess whether the addition of SBRT to standard therapy improves survival outcomes, focusing on common primary tumour sites where oligometastatic disease is encountered.

Ethics approval required

Old ethics approval format

Ethics approval(s)

London-Central Research Ethics Committee, 09/05/2016, ref: 16/LO/0529

Study design

Randomised; Interventional; Design type: Treatment, Surgery

Primary study design

Interventional

Study type(s)

Treatment

Health condition(s) or problem(s) studied

Extracranial oligometastases

Interventions

Patients will be randomised between SOC and SBRT + SOC in a 1:1 ratio. Patients will be randomised at different stages of their disease depending on the primary tumour site and in accordance with the inclusion and exclusion criteria. Treatment allocation will use minimisation with balancing factors of primary tumour site (breast, NSCLC, prostate) and centre. In tumour sites where there is felt to be a further important prognostic variable which may affect the primary PFS endpoint, a further stratification will be performed, as outlined below, to ensure the 2 treatment groups are balanced.

Breast – ER+ vs ER-

NSCLC – EGFR+ vs EGFR-

Prostate – endocrine naïve vs castrate resistant

SOC only arm: In the SOC only arm, the choice of SOC treatment is at the discretion of the local oncologist (chemotherapy, biological therapy, endocrine therapy, surgery, palliative radiotherapy or observation).

SBRT + SCO arm: Patients randomised to SBRT+SOC will receive a dose and fractionation regimen dependent on the metastatic site and proximity to dose limiting organs and normal tissues. The average scheme would be 3 treatments over 5 days but the maximum period of SBRT duration could be 8 treatments over 19 days. After SBRT treatment, the patient will be treated with the SOC treatment at the discretion of the local oncologist.

All patients will be reviewed every 3 months with a clinical examination and tumour markers (where applicable) during years 1 and 2, and 6 monthly thereafter to 5 years. Staging and follow up imaging protocols will be tumour type dependent:

1. Breast: 3 monthly CT scans for years 1 and 2, and 6 monthly thereafter to 5 years.
2. NSCLC: 3 monthly CT scans for years 1 and 2, 6 monthly to year 3, then annually to 5 years.
3. Prostate: CT scans will be performed at 6, 12 and 24 months with imaging triggered by appropriate PSA rises.

All patients will have a toxicity assessment at each clinic visit and patient reported quality of life (QOL) assessment at 3, 6, 12, 18 and 24 months.

Intervention Type

Other

Primary outcome(s)

Progression free survival is measured using RECIST at baseline, 3, 6, 9, 12, 15, 18, 21,24, 30, 36, 42, 48, 54 and 60 months post randomisation.

Key secondary outcome(s))

1. Recruitment rate is defined by the proportion of patients recruited into the trial versus the number of patients required
2. SBRT deliverability is defined by the proportion of patients allocation SBRT who received SBRT and within dosimetric constraints outlined in the protocol versus the number of patients allocated SBRT
3. Overall survival is defined as time from randomisation until the time of death from any cause
4. Local lesion control is assessed using RECIST at baseline, 3, 6, 9, 12, 15, 18, 21,24, 30, 36, 42, 48, 54 and 60 months post randomisation.
5. Clinician reported acute and late radiation related toxicity is measured using CTCAE version 4 and RTOG at baseline, end of treatment, 3, 6, 9, 12, 15, 18, 21,24, 30, 36, 42, 48, 54 and 60 months post randomisation
6. Patient reported quality of life is measured using the EORTC QLQ C30 and EQ-5D questionnaires at baseline, end of treatment, 3, 6, 9, 12, 18 and 24 months post randomisation

Completion date

01/10/2019

Eligibility

Key inclusion criteria

1. Age \geq 18 years
2. WHO performance status 0-2
3. Histological confirmation of primary malignancy (histological confirmation of metastasis is not mandatory but should be performed in any situation where there is diagnostic uncertainty). Patients with breast, NSCLC or prostate primary malignancies are eligible.
4. Predicted life expectancy > 6 months
5. \leq 3 metastatic lesions (total). A maximum of 2 different organ systems (e.g. liver, lung, bone, nodal) may contain metastases but the total number of lesions must not exceed 3. For example, a patient with 3 liver metastases or 1 liver metastasis and 2 lung metastases would be eligible. A patient with 1 lung metastasis, 1 liver metastasis and an adrenal metastasis is ineligible.

6. All metastases must be visible, imaging defined targets and be suitable for treatment with SBRT in accordance with the dose fractionation options specified in the protocol. (See the associated CORE trial radiotherapy delivery guidelines for detailed SBRT guidance by metastatic site)

7. Patients who have received prior ablative therapy (e.g. surgery, RFA or SBRT) for metastatic disease are eligible, as long as this site is controlled on imaging at the point of trial entry and the total number of metastases over time since diagnosis of metastatic disease does not exceed 3. Patients with 2 or 3 metastases in which ablative therapy (e.g. surgery/RFA) to 1 site is deemed appropriate as part of standard therapy may be entered into the trial after ablative treatment, following successful delivery of clinical treatment.

8. Metachronous metastatic disease presentation only. Primary site must be controlled. Disease-free interval from completion of radical treatment (including any adjuvant therapy) to diagnosis of metastases:

8.1. Breast: ≥ 6 months. Patients who have relapsed whilst on adjuvant endocrine therapy are eligible.

8.2. NSCLC: ≥ 4 months

8.3. Prostate: ≥ 6 months. Patients who have relapsed whilst on adjuvant endocrine therapy are eligible

9. Systemic therapy naïve in the metastatic setting

10. Adequate baseline organ function to allow SBRT to all relevant targets dependent on location of metastatic subsite for necessary baseline investigations)

11. Negative pregnancy test (for women of childbearing potential)

12. Any psychological, familial, sociological or geographical condition potentially hampering compliance with the study protocol and follow-up schedule

13. Written informed consent

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Adult

Lower age limit

18 years

Sex

All

Total final enrolment

245

Key exclusion criteria

1. Intra-cranial metastases

2. Malignant pleural effusion

3. Malignant peritoneal disease

4. Any single metastasis $>6\text{cm}$ ($>5\text{cm}$ for lung metastases)

5. Prior radiotherapy to a site that precludes safe delivery of SBRT

6. Co-morbidities precluding staging or follow up imaging, or precluding procedures required to

facilitate SBRT

7. Loco-regional nodal relapse where surgery or regional field radiotherapy is standard of care. Patients with supraclavicular, axillary and internalmammary nodal relapse from breast cancer are excluded

8. Spinal cord compression

9. Any condition or significant clinical co-morbidities that precludes the safe delivery of SBRT (eg history of clinically significant diffuse interstitial lung disease if SBRT to lung metastases or lesions adjacent to lungs are considered or clinically significant colitis ie ulcerative colitis /Crohn's disease if SBRT to the pelvis or abdomen is considered)

10. Prostate cancer patients previously relapsing on Androgen Deprivation Therapy (ADT) or CAB and receiving abiraterone, enzalutamide or docetaxel are ineligible

11. Patients whose entry to the trial will cause unacceptable clinical delays to their planned management

Date of first enrolment

07/10/2016

Date of final enrolment

28/02/2019

Locations

Countries of recruitment

United Kingdom

England

Study participating centre

The Institute of Cancer Research

Clinical Trials and Statistics Unit (ICR-CTSU)

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Belmont

Sutton

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Sponsor information

Organisation

Royal Marsden NHS Foundation Trust

ROR

<https://ror.org/0008wzh48>

Funder(s)

Funder type

Charity

Funder Name

Cancer Research UK

Alternative Name(s)

CR_UK, Cancer Research UK - London, Cancer Research UK (CRUK), CRUK

Funding Body Type

Private sector organisation

Funding Body Subtype

Other non-profit organizations

Location

United Kingdom

Results and Publications

Individual participant data (IPD) sharing plan

The datasets generated during and/or analysed during the current study are/will be available upon request from core-icrctsu@icr.ac.uk

IPD sharing plan summary

Available on request

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
HRA research summary			28/06/2023	No	No
Participant information sheet	Participant information sheet	11/11/2025	11/11/2025	No	Yes
Study website	Study website	11/11/2025	11/11/2025	No	Yes