

A phase I/II trial of isotoxic accelerated radiotherapy in the treatment of patients with non-small cell lung cancer

Submission date 10/06/2011	Recruitment status No longer recruiting	<input checked="" type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
Registration date 10/06/2011	Overall study status Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
Last Edited 04/09/2019	Condition category Cancer	<input type="checkbox"/> Individual participant data

Plain English summary of protocol

<https://www.cancerresearchuk.org/about-cancer/find-a-clinical-trial/a-trial-looking-at-higher-dose-radiotherapy-for-non-small-cell-lung-cancer-i-start>

Contact information

Type(s)

Scientific

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Additional identifiers

ClinicalTrials.gov (NCT)

NCT01537991

Clinical Trials Information System (CTIS)

2010-020075-23

Protocol serial number

9703

Study information

Scientific Title

A phase I/II trial of isotoxic accelerated radiotherapy in the treatment of patients with non-small cell lung cancer

Acronym

I-START

Study objectives

The I-START trial is designed to determine the highest doses of radiotherapy that can safely be used in locally advanced non-small cell lung cancer (NSCLC). Patients with NSCLC who are expected to live longer than three months and are fit to receive radical radiotherapy (radiotherapy given with curative intent) will be eligible to participate. All trial participants will receive 20 doses (called fractions) of radiotherapy.

Phase I will establish the maximum tolerated dose (MTD) that may be safely delivered to the oesophagus in patients where the oesophagus lies within the radiotherapy high dose region. This will establish the maximum dose to the oesophagus for phase II.

Phase II will establish whether this novel radiotherapy regimen is tolerable, safe and sufficiently active in eligible patients to justify its inclusion as an experimental arm in future randomised phase III trials.

Ethics approval required

Old ethics approval format

Ethics approval(s)

First MREC, 15/09/2010, ref: 10/MRE09/n29

Study design

Non-randomised; Interventional; Design type: Treatment

Primary study design

Interventional

Study type(s)

Treatment

Health condition(s) or problem(s) studied

Topic: National Cancer Research Network; Subtopic: Lung Cancer; Disease: Lung (non-small cell)

Interventions

Phase I will have two groups, each with 6 to 12 participants who will be treated at each of up to 4 dose levels until the MTD recommended Phase II dose is identified.

49 patients need to be recruited into Phase II, or which 39 should be toxicity-free at three months for evidence to proceed (base on a Fleming 1 stage design)

Radiotherapy, between 58Gy and 65Gy delivered in 20 fractions; Follow Up Length: 24 month(s);
Study Entry : Registration only

Intervention Type

Other

Phase

Phase I/II

Primary outcome(s)

Grade 3 or 4 toxicities; Timepoint(s): occurring up to three months after radiotherapy

Key secondary outcome(s)

1. Dose Limiting Toxicity; Timepoint(s): occurring up to six months after radiotherapy (RT)
2. Establish Maximum Tolerated Dose to the oesophagus; Timepoint(s): acute grade 3 or 4 toxicity occurring up to two months after radiotherapy
3. Local control; Timepoint(s): to the date of first clinical evidence of progressive disease at the primary site, or death
4. Overall Survival; Timepoint(s): date of entry to date of death
5. Tumour response; Timepoint(s): assessed using Response Evaluation Criteria In Solid Tumors (RECIST) at 2 months post RT

Completion date

30/04/2016

Eligibility

Key inclusion criteria

1. Histologically or cytologically confirmed stage II IIIb NSCLC (Appendix II)
2. Inoperable disease (as assessed by a lung cancer MDT with thoracic surgical input) or operable but the patient refuses surgery
3. Disease which can be encompassed within a radical radiotherapy treatment plan in keeping with standard practice at the participating centre
4. World Health Organisation (WHO) Performance Status 0 or 1 (Appendix III)
5. Adequate respiratory function: Forced expiratory volume in the first second (FEV1) = 1.0 litre, diffusing capacity of the lung for carbon monoxide (DLCO) (transfer factor) = 40% of predicted and carbon monoxide transfer coefficient (Kco) (Dlco/VA) > 40% predicted on baseline lung function tests
6. Blood haemoglobin should be = 10g/dL
7. No prior thoracic radiotherapy
8. Age more than or equal to 16 years
9. Considered fit to receive trial treatment
10. Estimated life expectancy of more than 3 months
11. Written informed consent obtained
12. Patient consents for electronic CT scan and planning data to be used for future research
13. Patient is available for follow up; Target Gender: Male & Female ; Lower Age Limit 16 years

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Adult

Sex

All

Key exclusion criteria

1. Medically unstable (e.g. unstable diabetes, uncontrolled hypertension, infection, hypercalcaemia or very symptomatic ischaemic heart disease)
2. Previous or current malignant disease likely to interfere with protocol treatment
3. Pancoast tumours
4. Connective tissue disorders (e.scleroderma, systemic lupus erythematosus)
5. Interstitial lung disease
6. Women who are pregnant or lactating
7. Women of childbearing potential who are not using adequate contraceptive precautions

Date of first enrolment

12/03/2012

Date of final enrolment

10/04/2014

Locations

Countries of recruitment

United Kingdom

Wales

Study participating centre

Cardiff University Centre for Trials Research

College of Biomedical & Life Sciences

Cardiff University

6th Floor, Neuadd Meirionnydd

Heath Park

Cardiff

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Sponsor information

Organisation

Velindre NHS Trust (UK)

ROR

<https://ror.org/05ntqkc30>

Funder(s)

Funder type

Charity

Funder Name

Cancer Research UK (CRUK) (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

IPD sharing plan summary

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Abstract results	results presented at ASCO	20/05/2018	11/01/2019	No	No
Study website	Study website	11/11/2025	11/11/2025	No	Yes