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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	[X] Prospectively registered [_] Protocol [_] Statistical analysis plan [X] Results [_] Individual participant data
Registration date 10/06/2011	**Overall study status** Completed	
Last Edited 04/09/2019	**Condition category** Cancer	

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

Study website
https://www.cardiff.ac.uk/centre-for-trials-research/research/studies-and-trials/view/i-start

Contact information

Type(s)
Scientific

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Additional identifiers

EudraCT/CTIS number
2010-020075-23

IRAS number

ClinicalTrials.gov number
NCT01537991

Secondary identifying numbers
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

Secondary study design
Non randomised controlled trial

Study setting(s)
Hospital

Study type(s)
Treatment

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

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 particpantss 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 Flemming 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 measure
Grade 3 or 4 toxicities; Timepoint(s): occuring up to three months after radiotherapy

Secondary outcome measures
1. Dose Limiting Toxicity; Timepoint(s): occuring up to six months after radiotherapy (RT)
2. Estabilsh Maximum Tolerated Dose to the oesophagus; Timepoint(s): acute grade 3 or 4 toxicity occuring 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

Overall study start date
01/03/2011

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

Age group
Adult

Sex
Both

Target number of participants
Planned Sample Size: 121; UK Sample Size: 121. Final: 81.

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
United Kingdom
CF14 4YS

Sponsor information

Organisation
Velindre NHS Trust (UK)

Sponsor details
Velindre Hospital
Velindre Road
Cardiff
Wales
United Kingdom
CF14 2TL

Sponsor type
Hospital/treatment centre

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, CRUK

Funding Body Type
Private sector organisation

Funding Body Subtype
Other non-profit organizations

Location
United Kingdom

Results and Publications

Publication and dissemination plan
Not provided at time of registration

Intention to publish date

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?
Abstract results	results presented at ASCO	20/05/2018	11/01/2019	No	No