

# Variation of radiotherapy target volume definition, dose to organs at risk (OAR) and clinical target volumes using anatomic (CT) versus combined anatomic and molecular imaging (PET-CT): Intensity Modulated Radiotherapy delivered using a Tomotherapy Hi Art machine

<b>Submission date</b> 29/04/2010	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
<b>Registration date</b> 29/04/2010	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
<b>Last Edited</b> 12/12/2017	<b>Condition category</b> Cancer	<input type="checkbox"/> Individual participant data

## Plain English summary of protocol

<http://cancerhelp.cancerresearchuk.org/trials/a-study-see-pet-scans-help-improve-radiotherapy-treatment-planning-oropharyngeal-cancer-vortigern>

## Contact information

### Type(s)

Scientific

### Contact name

Dr Sanjoy Chatterjee

### Contact details

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United Kingdom  
NE7 7DN

## Additional identifiers

**EudraCT/CTIS number**

**IRAS number**

**ClinicalTrials.gov number**

**Secondary identifying numbers**

7341

## **Study information**

### **Scientific Title**

Variation of radiotherapy target volume definition, dose to organs at risk (OAR) and clinical target volumes using anatomic (CT) versus combined anatomic and molecular imaging (PET-CT): Intensity Modulated Radiotherapy delivered using a Tomotherapy Hi Art machine

### **Acronym**

VortigERn

### **Study objectives**

30 patients with head and neck cancer who are being treated with intensity modulated radiotherapy (IMRT) will be recruited in the study. Patients willing to give consent to participate will be asked to have a contrast enhanced positron emission tomography - computed tomography (PET-CT) scan. The CT scan data will then be used to define the CTV1 and CTV2 for IMRT treatment (as per agreed protocol) as standard. A computer based IMRT plan will be generated for optimal treatment of the patient using the CT information only. The patient will be treated on the basis of this.

### **Ethics approval required**

Old ethics approval format

### **Ethics approval(s)**

MREC approved on the 20/10/2008 (ref: 08/H0907/127)

### **Study design**

Non-randomised interventional treatment trial

### **Primary study design**

Interventional

### **Secondary study design**

Non randomised controlled trial

### **Study setting(s)**

GP practice

### **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: All Cancers/Misc Sites; Disease: Unknown  
Primary Site

**Interventions**

Standard pre-radiotherapy planning imaging is with a contrast enhanced CT scan. In the study all patients were required to have a 18 FDG PET-CT scan in the treatment position.

Study entry: registration only

**Intervention Type**

Other

**Phase**

Not Specified

**Primary outcome measure**

To explore if the FDG PET CT based radiotherapy target volumes are different to that of CT scan

**Secondary outcome measures**

Feasibility of dose escalation in tumour volumes in oropharyngeal SCC.

**Overall study start date**

01/05/2009

**Completion date**

02/03/2010

**Eligibility****Key inclusion criteria**

1. Tumours of oropharynx area in the head and neck
2. Have involved or uninvolved neck nodes
3. Being treated with tomotherapy IMRT
4. Either sex

**Participant type(s)**

Patient

**Age group**

Not Specified

**Sex**

Both

**Target number of participants**

Planned Sample Size: 30

**Key exclusion criteria**

Not provided at time of registration

**Date of first enrolment**

01/05/2009

**Date of final enrolment**

02/03/2010

**Locations****Countries of recruitment**

England

United Kingdom

**Study participating centre**

**Northern Centre for Cancer Care**

Newcastle upon Tyne

United Kingdom

NE7 7DN

**Sponsor information****Organisation**

Newcastle Hospitals NHS Foundation Trust (UK)

**Sponsor details**

Freeman Hospital

Freeman Road

High Heaton

Newcastle upon Tyne

England

United Kingdom

NE7 7DN

**Sponsor type**

Hospital/treatment centre

**Website**

<http://www.newcastle-hospitals.org.uk/>

**ROR**

<https://ror.org/05p40t847>

# Funder(s)

## Funder type

Research organisation

## Funder Name

Royal College of Radiologists (UK)

## Alternative Name(s)

The Royal College of Radiologists, RCR

## Funding Body Type

Private sector organisation

## Funding Body Subtype

Associations and societies (private and public)

## 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?
<a href="#">Results article</a>	results	01/12/2012		Yes	No