

# A Phase II Trial to Assess the Activity of NY-ES-O1 Targeted T Cells in Advanced Oesophagogastric Cancer

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<b>Registration date</b> 10/09/2013	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input type="checkbox"/> Results
<b>Last Edited</b> 05/03/2019	<b>Condition category</b> Cancer	<input type="checkbox"/> Individual participant data <input type="checkbox"/> Record updated in last year

## Plain English summary of protocol

<http://www.cancerresearchuk.org/about-cancer/find-a-clinical-trial/a-trial-looking-at-t-cell-therapy-for-cancer-of-the-oesophagus-or-stomach>

## Contact information

### Type(s)

Scientific

### Contact name

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## Additional identifiers

EudraCT/CTIS number

IRAS number

ClinicalTrials.gov number

Secondary identifying numbers

## Study information

### Scientific Title

A Phase II Trial to Assess the Activity of NY-ESO-1 Targeted T Cells in Advanced Oesophagogastric Cancer

### Acronym

ATTACK-OG

### Study objectives

This is a trial of adoptive T cell therapy using autologous T cells genetically engineered to target the tumour associated antigen NY-ESO-1. Eligible patients will undergo leukapheresis to retrieve sufficient T cells which will be gene modified and expanded in the laboratory. Patients will undergo preconditioning chemotherapy with cyclophosphamide (60mg/kg) day -7 and day -6, followed by fludarabine (25mg/m<sup>2</sup>) day -5 to day -1. The NY-ESO-1 gene modified cells will be re-infused on day 0 and the patients will receive up to 12 doses of intravenous IL2 (100000 U/kg) from day 0 to day 4.

#### Primary Objective:

To explore the activity of adoptive cell therapy targeted to NY-ESO-1 in oesophagogastric cancer patients who are NY-ESO-1 and HLA-A\*0201 positive.

#### Secondary Objectives:

1. Evaluation of feasibility and tolerability of adoptive cell therapy targeted to NY-ESO-1 in oesophagogastric cancer patients who are NY-ESO-1 positive and HLA-A\*0201 positive.
2. Evaluation of progression free survival.
3. Evaluation of the duration of response.
4. Assessment of overall survival.

#### Exploratory Objectives:

1. Laboratory analysis of gene modified T-cell survival and other immunological assessments.
2. Evaluation of response rate by immune related Response Criteria (irRC).
3. Evaluation of tumour marker responses.
4. Assessment of the cost of treatment.

More details can be found at: <http://public.ukcrn.org.uk/search/StudyDetail.aspx?StudyID=14133>

### Ethics approval required

Old ethics approval format

### Ethics approval(s)

13/SS/0041

### Study design

Phase II open-label non-randomised interventional treatment trial

**Primary study design**

Interventional

**Secondary study design**

Non randomised study

**Study setting(s)**

Hospital

**Study type(s)**

Treatment

**Participant information sheet****Health condition(s) or problem(s) studied**

Topic: National Cancer Research Network; Subtopic: Upper Gastro-Intestinal Cancer; Disease: Oesophagus, Stomach

**Interventions**

Interleukin 2, Patients will receive up to 12 doses of intravenous IL-2 (100000 U/kg) from day 0 to day 4

NY-ESO-1 T-cells, The NY-ESO-1 gene modified cells will be re-infused on day 0 Preconditioning chemotherapy, cyclophosphamide (60 mg/kg) day -7 and day -6

Preconditioning chemotherapy, fludarabine (25 mg/m<sup>2</sup>) day -5 to day -1

**Intervention Type**

Biological/Vaccine

**Phase**

Phase II

**Primary outcome measure**

Response rate according to RECIST 1.1; Timepoint(s): Week 6 post treatment, week 12 post treatment, and then 12 weekly until patient off study

**Secondary outcome measures**

Not provided at time of registration

**Overall study start date**

01/09/2013

**Completion date**

01/05/2018

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

Prescreening:

1. Patients must be HLA-A0201 positive on pre-screen blood test

2. If confirmed HLA-A0201 positive, subjects tumour sample must stain positive by immunohistochemistry for NYES-O1 and/or LAGE (either diagnostic or more recent biopsy is acceptable. Subject may require additional biopsy if insufficient tumour material available from diagnostic sample).

#### Main Study:

1. Patients must have histologically confirmed oesophagogastric cancer and have received prior chemotherapy.

2. There must be measurable disease by Response Evaluation Criteria In Solid Tumors (RECIST)

1.1

3. Patients may have had any previous systemic therapies provided they are otherwise fit for treatment

4. Age equal to or greater than 18 years

5. World Health Organisation (WHO) performance status of 0 or 1

6. Patients must be human leukocyte antigen (HLA-A2) positive

7. Their tumour must stain positive by immunohistochemistry for NY-ESO-1 and/or LAGE (either diagnostic or more recent biopsy is acceptable)

8. Life expectancy >3months

9. Left ventricular ejection fraction (LVEF) > 50% as measured by ECHO or Multi Gated Acquisition (MUGA) and satisfactory stress ECHO (if over 60 or had previous cardiotoxic therapy)

10. Haematological and biochemical indices:

10.1. Haemoglobin (Hb)  $\geq 8.0$  g/dL

10.2. Neutrophils  $\geq 1.0 \times 10^9/L$

10.3. Platelets (Plts)  $\geq 100 \times 10^9/L$

11. Any of the following abnormal baseline liver function tests:

11.1. Serum bilirubin  $1.5 \times$  ULN

11.2. Alanine aminotransferase (ALT) and/or aspartate aminotransferase (AST)  $\leq 3 \times$  ULN unless patient has liver metastases when can be  $< 5 \times$  ULN

11.3. Serum creatinine  $\leq 150 \mu\text{mol/L}$  or creatinine clearance  $> 50$  ml/min

These measurements must be performed prior to leukapheresis and again prior to commencing preconditioning chemotherapy.

12. The chemotherapy to be used in this trial is non-myeloablative, but where there is concern about a patients bone marrow reserves, for example due to multiple previous lines of myelosuppressive chemotherapy a backup stem cell harvest should also be obtained.

13. Female patients of child-bearing potential must have a negative serum or urine pregnancy test prior treatment and agree to use appropriate medically approved contraceptive precautions for four weeks prior to entering the trial, during the trial, and for six months afterwards.

14. Male patients must agree to use barrier method contraception during the treatment and for six months afterwards.

15. Full written informed consent

#### Participant type(s)

Patient

#### Age group

Adult

#### Lower age limit

18 Years

#### Sex

Both

### **Target number of participants**

Planned Sample Size: 28; UK Sample Size: 10

### **Key exclusion criteria**

1. Those receiving radiotherapy, biological therapy, endocrine therapy, immunotherapy, systemic steroids, or chemotherapy during the previous four weeks (six weeks for nitrosoureas and MitomycinC) prior to treatment or during the course of the treatment.
2. All toxic manifestations of previous treatment must have resolved. Exceptions to this are alopecia or certain Grade 1 toxicities, which an investigator considers should not exclude the patient.
3. Participation in any other clinical trial within the previous 30 days or during the course of this treatment.
4. Previous allogeneic transplant.
5. Clinically significant cardiac disease. Examples would include unstable coronary artery disease, myocardial infarction within 6 months or Class III or IV AHA criteria for heart disease
6. Patients who are high medical risks because of nonmalignant systemic disease, including those with, uncontrolled cardiac or respiratory disease, or other serious medical or psychiatric disorders which in the lead clinicians opinion would not make the patient a good candidate for adoptive T-cell therapy
7. Concurrent systemic infections (CTCAE Grade 3 or more) within the 28 days prior to treatment.
8. Prior history of malignancies at other sites, with the exception of adequately treated cone-biopsied in situ carcinoma of the cervix uteri and basal or squamous cell carcinoma of the skin.
9. Patients known or found to be serologically positive for Hepatitis B, C, HIV or HTLV.
10. History of systemic autoimmune disease which could be lifethreatening if reactivation occurred (for example hypothyroidism would be permissible, prior rheumatoid arthritis or SLE would not).
11. Evidence of CNS involvement.
12. Patients who are likely to require systemic steroids or other immunosuppressive therapy.
13. Pregnant and lactating women.
14. Radiotherapy to >25% skeleton.

### **Date of first enrolment**

01/10/2014

### **Date of final enrolment**

01/05/2018

## **Locations**

### **Countries of recruitment**

England

France

Italy

Netherlands

Sweden

United Kingdom

**Study participating centre**

**Christie Hospital NHS Foundation Trust**

Manchester

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## **Sponsor information**

**Organisation**

Christie Hospital NHS Foundation Trust (UK)

**Sponsor details**

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England

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**Sponsor type**

Hospital/treatment centre

**Website**

<http://www.christie.nhs.uk/>

**ROR**

<https://ror.org/03v9efr22>

## **Funder(s)**

**Funder type**

Government

**Funder Name**

Seventh Framework Programme

**Alternative Name(s)**

EC Seventh Framework Programme, European Commission Seventh Framework Programme, EU Seventh Framework Programme, European Union Seventh Framework Programme, FP7

**Funding Body Type**

Government organisation

**Funding Body Subtype**

National government

**Location**

## 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="#">HRA research summary</a>			28/06/2023	No	No