

# Effectiveness of incorporating cetuximab into both docetaxel/cisplatin/fluorouracil induction chemotherapy and chemoradiotherapy in inoperable squamous cell carcinoma of the oral cavity

<b>Submission date</b> 05/10/2015	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
<b>Registration date</b> 26/10/2015	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
<b>Last Edited</b> 12/05/2021	<b>Condition category</b> Cancer	<input type="checkbox"/> Individual participant data

## Plain English summary of protocol

### Background and study aims

Mouth cancer is the most common type of cancer that affects the head and neck area. About 90% of all mouth cancers start in the thin, flat cells which line the lips and the inside of the mouth (squamous cells) and are known as oral squamous cell carcinoma (OSCC). If OSCC is found early, then in most cases a complete cure is possible using a combination of chemotherapy, radiotherapy and surgery. If it is left untreated however, then it can spread very quickly to other areas of the mouth, head and neck. If the tumour is small enough, then it can be completely removed in an operation. If the tumour is inoperable however, patients tend to have a worse outlook, and more aggressive chemotherapy is often needed. Cetuximab is a medication which is used to treat advanced cancer of the head and neck. It belongs to a group of drugs called monoclonal antibodies, which work by “locking onto” specific proteins (receptors) on the surface of the cancer cells, preventing them from multiplying. The first-line drug treatment (induction chemotherapy) for head and neck cancers is usually TPF treatment, which is the name of a combination of chemotherapy medications (docetaxel, cisplatin and fluorouracil). Although cetuximab is usually only used in the late stages of head and neck cancer, it could potentially be incorporated into the TPF treatment (C-TPF) in induction chemotherapy. If this proves successful, then later radiotherapy (treatment to destroy cancer cells with radiation) could be more successful. The aim of this study is to find out whether C-TPF is an effective induction treatment for inoperable oral squamous cell carcinoma.

### Who can participate?

Adults with inoperable oral squamous cell carcinoma where the cancerous cells have spread.

### What does the study involve?

All participants are given two complete cycles of C-TPF treatment. This involves weekly treatment with cetuximab, docetaxel, cisplatin and fluorouracil administered intravenously

(through a drip). After completing the treatment, participants have an MRI scan in order to find out whether the treatment has had any effect on the tumour size. Any participants who have responded to the C-TPF treatment are then given bio-chemoradiotherapy (bio-CRT), which involves radiotherapy and weekly treatment with cetuximab and cisplatin for a further 7 weeks. At the end of the bio-CRT treatment, participants attend monthly follow-up clinic visits. Participants are given another MRI scan two months after the bio-CRT treatment has ended, which is repeated every three months until the disease gets worse (disease progression) or the patient dies.

What are the possible benefits and risks of participating?

A benefit of participating is that patients can receive the new combinational treatment (C-TPF), which may prove to be a more effective treatment. The risks include the side effects from both cetuximab and TPF, which should be manageable.

Where is the study run from?

Taipei Veterans General Hospital (Taiwan)

When is the study starting and how long is it expected to run for?

April 2011 to May 2015

Who is funding the study?

1. Taiwan Clinical Oncology Research Foundation (Taiwan)
2. Taipei Veterans General Hospital (Taiwan)
3. Ministry of Health and Welfare (Taiwan)

Who is the main contact?

Dr Muh Hwa Yang

## Contact information

**Type(s)**

Public

**Contact name**

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**Contact details**

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## Additional identifiers

## Study information

**Scientific Title**

C-TPF (cetuximab, cisplatin, docetaxel, 5-FU) induction chemotherapy in inoperable squamous cell carcinoma of oral cavity: a phase II study

### **Study objectives**

C-TPF will be an effective induction treatment for inoperable oral squamous cell carcinoma.

### **Ethics approval required**

Old ethics approval format

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

Institutional Review Board of Taipei Veterans General Hospital, 05/11/2015, ref: 2010-08-028 MB

### **Study design**

Single-arm prospective open label phase II study

### **Primary study design**

Interventional

### **Study type(s)**

Treatment

### **Health condition(s) or problem(s) studied**

Oral Squamous Cell Carcinoma

### **Interventions**

All participants receive two cycles of C-TPF induction treatment. After completing the induction, MRI will be examined for the response of the treatment. Only complete or partial response participants will enter following bio-CRT. At the end of the bio-CRT, all participants will attend a follow-up visit every month at physicians' clinics. The first MRI image will be taken 2 months after completing the bio-CRT then every 3 months until disease progression or patient death.

#### **Induction chemotherapy (C-TPF):**

IC consisted of weekly cetuximab plus tri-weekly TPF twice for a total of seven weeks. Cetuximab was administered at a loading dose of 400 mg/m<sup>2</sup> over a period of 120 minutes during the first week, followed by weekly 60-minute infusions of 250 mg/m<sup>2</sup> for six weeks. A total of 7 courses of cetuximab were given during the induction phase. The tri-weekly TPF regimen was docetaxel 60 mg/m<sup>2</sup> as a 3-hour intravenous infusion, followed by intravenous cisplatin 75 mg/m<sup>2</sup> for a period of 3 hours and a 96-hour continuous infusion of fluorouracil at 850 mg/m<sup>2</sup> per 24 hours. A total of 2 courses of TPF were given during the induction phase.

#### **Bio-chemoradiotherapy (bio-CRT)**

The definitive curative radiation dose administered to the primary tumor was 70 Gy, which was administered as fractions of 2 Gy per day, 5 days per week. The dose administered to uninvolved lymph nodes was between 44-60 Gy. Involved lymph nodes received 60-66 Gy. Radiotherapy must have been given with either three-dimensional conformal radiotherapy (3D-CRT) or intensity-modulated RT (IMRT) techniques. Bio-chemotherapy was administered by a 60-minute infusion of 250 mg/m<sup>2</sup> cetuximab weekly plus 60-minute infusions of 30 mg/m<sup>2</sup> cisplatin weekly for a total of 7 weeks.

### **Intervention Type**

Drug

**Phase**

Phase II

**Drug/device/biological/vaccine name(s)**

Cetuximab

**Primary outcome(s)**

Objective response rate (ORR) of induction chemotherapy is measured by MRI according to RECIST criteria in week 7, after two cycles of C-TPF treatment.

**Key secondary outcome(s)**

1. Progression free survival will be measured by MRI first 2 months after bio-CRT and then every 3 months, until disease progression or patient death
2. Overall survival will be followed up until patient death at physicians' clinic visits every month
3. Efficacy of bio-CRT will be measure by comparing the first MRI 2 months after bio-CRT to the MRI taken after induction chemotherapy
4. Acute side effects are recorded during the treatment of induction and bio-CRT. Late side effects are recorded by physicians during the follow-up clinic visits.

**Completion date**

05/07/2018

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

1. Aged between 18-70 years
2. Histologically proven locally advanced inoperable stage IV oral squamous cell carcinoma (OSCC)
3. At least one measurable lesion
4. An ECOG performance status < 2
5. Adequate hematological profile (WBC > 3 x 10<sup>9</sup>/L, neutrophils > 1.5 x10<sup>9</sup>/L, hemoglobin > 9 g/dl, platelets > 100 x 10<sup>9</sup>/L)
6. Adequate liver and renal function panel (serum bilirubin < 1.5 x ULN, AST/ALT < 5 x ULN, creatinine < 1.25 x ULN and/or creatinine clearance > 50 ml/min)
7. Life expectancy of more than 12 weeks
8. Effective contraception for both male and female subjects if the risk of conception exists

**Participant type(s)**

Patient

**Healthy volunteers allowed**

No

**Age group**

Adult

**Lower age limit**

18 years

**Upper age limit**

70 years

**Sex**

All

**Total final enrolment**

43

**Key exclusion criteria**

1. Distant metastasis or locally recurrent tumors
2. Prior chemotherapy, radiotherapy or surgery for HNC
3. Simultaneous double cancers except for cervical carcinoma in situ
4. Localized skin squamous cell cancer, or basal cell carcinoma of the skin
5. Use of an investigational agent within the past 28 days prior to enrollment
6. Known grade 3/4 allergic reactions to any components of the treatment
7. Pregnancy or breast-feeding
8. Clinically active disease unrelated to cancer itself
9. History of severe pulmonary or cardiac disease in the past 12 months
10. Uncontrolled chronic neuropathy
11. Participation in another clinical trial within the past 30 days
12. Legal incapacity or limited legal capacity

**Date of first enrolment**

30/09/2015

**Date of final enrolment**

05/06/2018

**Locations**

**Countries of recruitment**

Taiwan

**Study participating centre**

**Taipei Veterans General Hospital**

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**Sponsor information**

**Organisation**

Taipei Veterans General Hospital

**ROR**

<https://ror.org/03ymy8z76>

## Funder(s)

**Funder type**

Research organisation

**Funder Name**

Taiwan Clinical Oncology Research Foundation

**Funder Name**

Taipei Veterans General Hospital

**Funder Name**

Ministry of Health and Welfare

## Results and Publications

**Individual participant data (IPD) sharing plan**

**IPD sharing plan summary**

Not expected to be made available

**Study outputs**

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Results article</a>		01/07/2017	12/05/2021	Yes	No