CETUXIMAB & RADIOTHERAPY

A treatment option for locally advanced Head & Neck SCC patients with a Karnofsky score ≥ 90% and for whom platinum-based chemo-radiotherapy is contra-indicated - NICE approved June 2008

Drugs/Dosage:

Starting one week before radiotherapy starts:

Week 1 Day 1:

Cetuximab 400mg/m^2 IV loading dose over 120 minutes

Day 1 of Weeks 2 – 8:

Cetuximab 250mg/m^2 IV over 60 minutes

Radiotherapy:

65 – 70 Gy in 30 – 35 fractions, given daily on weekdays only, over 6 - 7 weeks.
There are no timing requirements for RT in relation to each cetuximab dose.

Other drugs:

Note that sunscreen and Pliazon must NOT be applied to the radiation field.

Pre-emptive management for all patients starting cetuximab:

- Pliazon cream applied to face, hands, feet, neck, back and chest twice daily throughout treatment - available free of charge from nurse-led (also see Comments)
- advise to limit skin exposure to sun, and to apply sunscreen SPF 15 or higher before going outdoors in sunny weather.

Aqueous cream should be provided for application in the radiation field.

Premedication for cetuximab:

Dexamethasone	8mg	IV	}
Chlorphenamine	10mg	IV	}administered 30 mins prior to cetuximab

Administration:

Cetuximab loading dose is to be given over 120 minutes.
Maintenance doses to be given over 60 minutes.

Patients need to be observed for one hour after doses 1 and 2 of cetuximab, to ensure no delayed reaction.

Frequency:

a single course, consisting of weekly cetuximab; the loading dose, followed by up to 7 maintenance doses

Main Toxicities:

infusion-related reactions (fever, chills, shortness of breath, nausea, headache, dizziness); skin reactions (acne-like rash, dry skin, itching, nail changes); sore eyes; hypomagnesaemia; stomatitis; radiation dermatitis; dysphagia

Anti-emetics:

cetuximab - mildly emetogenic; radiotherapy – mildly emetogenic

Regular Investigations:

FBC	once weekly
U&Es & LFTs	once weekly
Mg^{2+}	once weekly

Comments:

Aveeno colloidal oatmeal lotion is an alternative moisturiser, for those patients who prefer it, and for those with broken skin where Pliazon should not be applied. Aveeno may be applied to the skin in the radiation field as it does not contain metallic ingredients or perfume, but advise patient to avoid applying to this area shortly before each RT dose as this can increase the radiation dose to the epidermis. The skin in the radiation field should be cleaned and dried gently prior to radiotherapy.

Reason for Update: review of management of cetux rash	Approved by Consultant: Dr S Whitaker
Version: 4	Approved by Lead Chemotherapy Nurse: P Deery
Supersedes: Version 3	Date: 2.8.13
Prepared by: S Taylor	Checked by: C Tucker

If the patient experiences a mild or moderate infusion-related reaction, the infusion may be re-initiated at a reduced rate. It is recommended to maintain this lower infusion rate in all subsequent infusions.
A severe allergic reaction requires immediate and permanent discontinuation of cetuximab.
Infusion-related and pulmonary symptoms may also rarely occur several hours after the infusion was given. Patients should be warned about this and instructed to contact the hospital if any such symptoms occur.

Low magnesium to be treated according to local guidelines.

Dose Modifications

Haematological Toxicity: Cetuximab is not myelosuppressive. Patients may continue cetuximab during periods of mild myelosuppression. Discuss with doctor if concerned.

Haemoglobin (Hb) needs to be maintained above 12g/dl throughout this treatment. If the Hb falls below this level, a blood transfusion needs to be arranged (treatment may continue).

Cetuximab Rash:

At the first sign of ***any*** skin toxicity / acneiform eruption, **up to Grade 2** (papular eruption with or without pruritis, covering 10 - 30% of BSA)	• Ensure Pliazon is being used regularly. • Initiate doxycycline 100mg po once daily, to continue throughout while on cetuximab. • Oral antihistamine for relief of any itch. Analgesia may be of benefit.
Grade 3 acneiform eruption (eruption covering > 30% BSA with or without pruritis, ***or*** < 30% but with extensive super-infection)	• Cetuximab treatment must be interrupted until resolved to ≤ Grade 2. • Increase doxycycline dose to 100mg bd continuous and maintain this dose with all further cetuximab. • Oral antihistamine for relief of any itch. Analgesia may be of benefit. • Once rash resolved, resume cetuximab at: - full dose with 1st occurrence; - 200mg/m^2 with 2nd occurrence; - 150mg/m^2 with 3rd occurrence.
Grade 3 acneiform eruption not responding to doxycycline 100mg bd	• Switch to erythromycin 500mg po qds
Grade 4 (associated with extensive superinfection requiring IV antibiotics)	• Rarely seen. Cetuximab permanently discontinued. Consult with dermatologist.

Topical acne medications are **not** recommended. Use of topical antibiotics is not encouraged, and needs to be discussed with Microbiology first.

Radiotherapy Rash: Ensure patient is counselled on good skin care, according to the radiotherapy department's document "Patients' skincare instructions during and after radiotherapy".
Cetuximab treatment (as well as radiotherapy) may need to be interrupted if the patient develops a severe radiation reaction. If in doubt, discuss with Consultant.

Renal and Hepatic Impairment: There are no data in patients with impaired renal or hepatic function.
However, dose adjustments would not be expected to be required.

References: Bonner, J et al; NEJM 2006; 354 (6): 567 – 578
Segaert, S et al; Ann Oncol 2005; 16: 1425 - 1433