

# BCCA Protocol Summary for Combined Modality Therapy for Advanced Head and Neck Cancer using Mitomycin, Fluorouracil and Split Course Radiation Therapy

Protocol Code:

HNFURT

Tumour Group:

Head and Neck

Contact Physician:

Dr. Stephen Chia

## ELIGIBILITY:

- squamous cell cancer patients with locally extensive head and neck cancer whose general condition is poor, but radiation therapy remains the best therapeutic option
- any age
- KPS status greater than 60%
- adequate marrow function
- modest abnormalities in liver, kidney and marrow function acceptable

## TESTS:

### Pre-chemotherapy investigations:

- Baseline: CBC & diff, platelets, creatinine, AST, bilirubin
- Before treatment: CBC & diff, platelets

### Assessment for re-repeating XRT

- clinical and radiologic measurements depending upon the location of the tumour around **day 35-42**. If patient judged to be fairly stable or improved, then repeat treatment x 1 on Day 43.

## TREATMENT:

It is not essential for the chemotherapy to begin before radiation therapy.

Radiotherapy	2,500 cGy in 10 fractions over 14 days, starting on Day 1	
Drug	Dose	BCCA Administration Guideline
Mitomycin	10 mg/m <sup>2</sup> Day 1 only (Maximum dose = 20 mg)	IV Push
Fluorouracil (5FU)	1,000 mg/m <sup>2</sup> /day for 4 days (total dose = 4,000 mg/m <sup>2</sup> over 96 h)	IV in D5W to a total volume of 192 mL by continuous infusion at 2 mL/h via appropriate infusor device*

Repeat both Radiotherapy and Chemotherapy in 43 days x 2 cycles total if patient is at least clinically stable.

\*Inpatients: 1,000 mg/m<sup>2</sup>/day in 1,000 mL D5W by continuous infusion daily over 24 h for 4 days

### Duration of Therapy:

- The program is completed after the second half of the split course of radiation therapy. Chemotherapy is given only twice and only in conjunction with the radiotherapy.

### DOSE MODIFICATIONS:

#### 1. Hematological: Treatment day counts

ANC (x 10 <sup>9</sup> /L)		Platelets (x 10 <sup>9</sup> /L)	Dose (Fluorouracil)
greater than 1.5	and	greater than 100	1,000 mg/m <sup>2</sup> /d x 4 days (96 h)
1 – 1.5	or	75 – 100	800 mg/m <sup>2</sup> /d x 4 days (96 h)
less than 1	or	less than 75	500 mg/m <sup>2</sup> /day x 4 days (96 h)

### PRECAUTIONS:

1. **Extravasation:** Mitomycin causes pain and tissue necrosis if extravasated. Refer to BCCA Extravasation Guidelines.
2. **Neutropenia:** Fever or other evidence of infection must be assessed promptly and treated aggressively.
3. **Gastrointestinal tract toxicity:** may occur consisting of stomatitis, diarrhea and cramps suggestive of drug toxicity and is an indication to stop therapy.
4. **Radiation therapy side effects:** include mucositis and dysphagia. These are not worse than radiation therapy alone.
5. **Possible drug interactions with fluorouracil and warfarin, phenytoin and fosphenytoin** have been reported and may occur at any time. Close monitoring is recommended (eg, for warfarin, monitor INR weekly during fluorouracil therapy and for 1 month after stopping fluorouracil).

**Contact Dr. Stephen Chia or tumour group delegate at (604) 877-6000 or 1-800-663-3333 with any problems or questions regarding this treatment program.**

Date activated: N/A (as HNFUA)

Date revised: 1 Sep 2009 (drug interaction added to Precautions)

### Reference:

Keane TJ, Cummings BJ, O'Sullivan, et al. A randomized trial of radiation therapy compared to split course radiation therapy combined with mitomycin C and 5-fluorouracil as initial treatment for advanced laryngeal and hypopharyngeal squamous carcinoma. Int J Radiation Oncology Biol Phys 1993;25(4):613-8.