

BCCA Protocol Summary for Advanced Head and Neck Cancer Using Cisplatin before or during Radiation Therapy

Protocol Code:

HNPRT

Tumour Group:

Head and Neck

Contact Physician:

Dr. Stephen Chia

ELIGIBILITY:

- locally extensive head and neck cancer, squamous cell or sinonasal undifferentiated carcinoma at diagnosis, any age, ECOG status 0 or 1
- locally extensive nasopharyngeal carcinomas, any age, ECOG status 0 or 1
- recurrent or metastatic squamous, nasopharyngeal or sinonasal cancer, [less than](#) 70 years old (age 70-75 only if very good general condition), ECOG 0-2, good nutritional state
- normal renal function
- adequate marrow function
- no hearing impairment

TESTS:

- Baseline: CBC & diff, platelets, creatinine, electrolytes, serum calcium, serum magnesium, serum albumin, AST, bilirubin
- Before each treatment: CBC & diff, creatinine

PREMEDICATION:

- Ondansetron 8 mg po and Dexamethasone 8 mg po 30 minutes pre-cisplatin each day and at least every 12 hours regularly during each day
- Prochlorperazine is usually sufficient after 5 days of ondansetron and dexamethasone

TREATMENT:

This treatment may be used as induction (before radiation therapy) or concurrent with radiation therapy after a team discussion as to best management for the individual patient.

Drug	Dose	BCCA Administration Guidelines
Cisplatin	25 mg/m ² Daily x 3 days (Total dose over 3 days = 75 mg/m ²) Or 25 mg/m ² Daily x 4 days* (Total dose over 4 days = 100 mg/m ²)	IV in 100 mL NS over 20-30 min (use 250 mL NS if greater than 60 mg)

* Four day regimen may be used for patients with an excellent performance status who are being treated before radiation therapy has begun

- The cycle is repeated approximately every 4 weeks from the start day unless being given before radiation therapy – in which case it may be given at a 3 weekly interval.

DURATION OF THERAPY:

If patients show useful response to pre-radiation treatment with acceptable toxicity after two cycles of chemotherapy, a third cycle might be given depending on the overall management plan coordinating with the radiation oncologist. At least once cycle of chemotherapy will be attempted concurrent with radiation therapy. Treatment may continue after radiation therapy for a total of 4 or 6 cycles or to patient tolerance.

DOSE MODIFICATIONS:

1. Hematological

ANC (x 10 ⁹ /L)		Platelets (x 10 ⁹ /L)	Dose
greater than 1.5	and	greater than 100	100%
If chemotherapy is to be given concurrently with radiation therapy, counts should be as above. If not, these dose reductions below apply.			
greater than or equal to 0.8	and	greater than or equal to 100	100%
less than 0.8	or	less than 100	50% dose reduction

2. Renal

CrCl (By Cockcroft/Gault formula)	Dose
greater than or equal to 60 mL/min	100%
45 – 59 mL/min	50%
less than 45 mL/min	Delay x 1 week, then reassess

Cockcroft/Gault formula:

$$\text{CrCl} = \frac{N \times (140 - \text{age}) \times \text{weight (kg)}}{\text{Serum Creatinine micromol/L}}$$

Where N = 1.04 for females, and 1.23 for males

3. Neurotoxicity:

- Tinnitus, mild high frequency hearing loss, and delayed peripheral neuropathy may occur secondary to cisplatin. The latter are generally reversible with time, though if the area of the eighth cranial nerve is to be radiated, hearing loss and tinnitus may be permanent. If clinically significant hearing loss or functionally significant peripheral neuropathy occurs, discontinue cisplatin only.

4. GI Toxicity:

Symptom	Grade	Description	Dose
Nausea & Vomiting	4	greater than 10 episodes in 24 h or needs parenteral support, dehydration	If not controlled by antiemetics, give 80% dose or stop treatment

PRECAUTIONS:

1. **Nausea and vomiting** are common and patients should be treated with ondansetron and dexamethasone before at least every 12 hours regularly during this treatment (see premedication section)
2. **Renal toxicity** may occur with a salt and water losing nephropathy. Patients should be encouraged to maintain good oral hydration.

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: 1 Oct 2007

Date revised: 1 Mar 2009 (unsafe abbreviations replaced)