BCCA Protocol Summary for Treatment of Recurrent or Metastatic Nasopharyngeal Carcinoma with CARBOplatin and PACLitaxel

Protocol Code: HNNAVPC

Tumour Group: Head and Neck

Contact Physician: Dr. Cheryl Ho

ELIGIBILITY:
- Recurrent or metastatic nasopharyngeal carcinoma
- Adequate hematologic, hepatic and renal function.
- Age greater than or equal to 18 years.
- ECOG performance status 0, 1 or 2.

TESTS:
- Baseline: CBC & differential, platelets, creatinine, liver function tests
- Before each treatment: CBC & differential, platelets, creatinine, any initially elevated tumor marker
- If clinically indicated: liver function tests prior to each cycle

PREMEDICATIONS:
- PACLitaxel must not be started unless the following drugs have been given:
  - 45 minutes prior to PACLitaxel:
    - dexamethasone 20 mg IV in 50 mL NS over 15 minutes
  - 30 minutes prior to PACLitaxel:
    - diphenhydramine 50 mg IV and ranitidine 50 mg IV in 50 mL NS over 20 minutes (compatible up to 3 hours when mixed in bag)
- Antiemetic protocol for High emetogenic chemotherapy (see protocol SCNAUSEA)

TREATMENT: (Give PACLitaxel first)

<table>
<thead>
<tr>
<th>Drug</th>
<th>Dose</th>
<th>BCCA Administration Guideline</th>
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<tbody>
<tr>
<td>PACLitaxel</td>
<td>175 mg/m²</td>
<td>IV in 500 mL NS over 3 hours (use non-DEHP bag and non-DEHP tubing with 0.22 micron or smaller in-line filter)</td>
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<tr>
<td>CARBOplatin</td>
<td>AUC 6</td>
<td>IV in 250 mL NS over 30 minutes</td>
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<td></td>
<td>Dose = AUC x (GFR* + 25)</td>
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*Measured GFR (e.g. nuclear renogram) is preferred whenever feasible, particularly in circumstances of co-morbidity that could affect renal function (third-space fluid accumulations, hypoproteinemia, potentially inadequate fluid intake, etc.). The lab reported GFR (MDRD formula) may be used as an alternative to the Cockcroft-Gault estimate of GFR; the estimated GFR reported by the lab or calculated using the Cockcroft-Gault equation should be capped at 125 mL/min when it is used to calculate the initial carboplatin dose. When a nuclear renogram is available, this clearance would take precedence.
COCKCROFT-GAULT FORMULA

\[
GFR = \frac{N \times (140 - \text{age in years}) \times \text{wt (kg)}}{\text{serum creatinine (micromol/L)}}
\]

*For males in = 1.23; for females N = 1.04

Note: The same method of estimation should be used throughout the treatment course (i.e. if lab reported GFR was used initially, this should be used for dosing in all subsequent cycles and not the Cockcroft-Gault estimate).

DOSE MODIFICATIONS:

1. Hematology (on treatment day):

<table>
<thead>
<tr>
<th>ANC (x 10^9/L)</th>
<th>Platelets (x 10^9/L)</th>
<th>Doses (both drugs)</th>
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<tbody>
<tr>
<td>greater than or equal to 1.0 And greater than or equal to 100</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>less than 1.0 Or less than 100</td>
<td>delay until recovery</td>
<td></td>
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</tbody>
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2. Arthralgia and/or myalgia: If arthralgia and/or myalgia of grade 2 (moderate) or higher is not relieved by adequate doses of NSAIDs or acetaminophen with codeine (e.g., TYLENOL #3®), a limited number of studies report a possible therapeutic benefit using:
   - predniSONE 10 mg po bid x 5 days starting 24 hours post-PACLitaxel
   - gabapentin 300 mg po on day before chemotherapy, 300 mg bid on treatment day, then 300 mg tid x 7 to 10 days
If arthralgia and/or myalgia persists, reduce subsequent PACLitaxel doses to 175 mg/m².

3. Neuropathy: Dose modification or discontinuation may be required (see BCCA Cancer Drug Manual).

4. Renal dysfunction: If significant increase (greater than 20%) in creatinine, repeat nuclear renogram (if available) and recalculate CARBOplatin dose using new GFR.

5. Hepatic dysfunction: Dose reduction may be required for PACLitaxel (see BCCA Cancer Drug Manual)
**PRECAUTIONS:**

1. **Hypersensitivity:** Reactions are common. See BCCA Hypersensitivity Guidelines

<table>
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<tr>
<th>Symptoms</th>
<th>Action</th>
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| **mild** symptoms (e.g. mild flushing, rash, pruritus) | ▪ complete PACLitaxel infusion. Supervise at bedside  
▪ no treatment required |
| **moderate** symptoms (e.g. moderate rash, flushing, mild dyspnea, chest discomfort, mild hypotension) | ▪ stop PACLitaxel infusion  
▪ give IV diphenhydramine 25-50 mg and IV hydrocortisone IV 100 mg  
▪ after recovery of symptoms resume PACLitaxel infusion at 20 mL/hr for 5 minutes, 30 mL/hr for 5 minutes, 40 mL/hr for 5 minutes, then 60 mL/hr for 5 minutes. If no reaction, increase to full rate.  
▪ if reaction recurs, discontinue PACLitaxel therapy |
| **severe** symptoms (i.e. one or more of respiratory distress requiring treatment, generalized urticaria, angioedema, hypotension requiring therapy) | ▪ stop PACLitaxel infusion  
▪ give IV antihistamine and steroid as above. Add epinephrine or bronchodilators if indicated  
▪ discontinue PACLitaxel therapy |

2. **Extravasation:** PACLitaxel causes pain and may, rarely, cause tissue necrosis if extravasated. Refer to BCCA Extravasation Guidelines.

3. **Neutropenia:** Fever or other evidence of infection must be assessed promptly and treated aggressively.

**Call Dr. Cheryl Ho or tumour group delegate at (604) 930-2098 or 1-800-523-2885 with any problems or questions regarding this treatment program.**

**References:**