BCCA Protocol Summary for Adjuvant Therapy for Breast Cancer using DOXOrubicin and Cyclophosphamide

**Protocol Code**          BRAJAC
**Tumour Group**          Breast
**Contact Physician**     Dr. Karen Gelmon

**ELIGIBILITY:**
- Adjuvant treatment for high risk breast cancer without systemic metastases.

**TESTS:**
- Baseline: CBC & diff, platelets, bilirubin
- Before each treatment: CBC & diff, platelets
- If clinically indicated: bilirubin, creatinine

**PREMEDICATIONS:**
- Antiemetic protocol for **highly** emetogenic chemotherapy (see protocol SCNAUSEA)

**TREATMENT:**

<table>
<thead>
<tr>
<th>Drug</th>
<th>Dose</th>
<th>BCCA Administration Guideline</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOXOrubicin (ADRIAMYCIN®)</td>
<td>60 mg/m²</td>
<td>IV push</td>
</tr>
<tr>
<td>cyclophosphamide</td>
<td>600 mg/m²</td>
<td>IV in NS or D5W 100 to 250 mL over 20 min to 1 hour</td>
</tr>
</tbody>
</table>

- Repeat every 21 days x 4 cycles.
- If radiation therapy is required, it is given following completion of chemotherapy (BCCA Cancer Management Manual).

**DOSE MODIFICATIONS:**

1. Hematological:

<table>
<thead>
<tr>
<th>ANC (x 10⁹/L)</th>
<th>Platelets (x 10⁹/L)</th>
<th>Dose (both drugs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greater than or equal to 1.5</td>
<td>Greater than or equal to 90</td>
<td>100%</td>
</tr>
<tr>
<td>1 to 1.49</td>
<td>70 to 89</td>
<td>75%</td>
</tr>
<tr>
<td>Less than 1</td>
<td>Less than 70</td>
<td>delay</td>
</tr>
</tbody>
</table>
2. **Hepatic dysfunction**: Dose modification required for DOXorubicin (see BCCA Cancer Drug Manual).

3. **Renal dysfunction**: Dose modification may be required for cyclophosphamide (see BCCA Cancer Drug Manual).

**PRECAUTIONS:**

1. **Cardiac Toxicity**: DOXorubicin is cardiotoxic and must be used with caution, if at all, in patients with severe hypertension or cardiac dysfunction. Cardiac assessment recommended if lifelong dose of 400 mg/m² to be exceeded (see BCCA Cancer Drug Manual).

2. **Extravasation**: DOXorubicin causes pain and 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. Karen Gelmon or tumour group delegate at (604) 877-6000 or 1-800-663-3333 with any problems or questions regarding this treatment program.

Date Revised: 1 Feb 2014 (Emetogenicity reclassified)

**Reference:**