BC Cancer Protocol Summary for Palliative Therapy for Metastatic Breast Cancer using PACLitaxel NAB (ABRAXANE)

**Protocol Code:** BRAVABR

**Tumour Group:** Breast

**Contact Physician:** Dr. Stephen Chia

**ELIGIBILITY:**
- First, second, or third line chemotherapy treatment of metastatic breast cancer patients with ECOG performance status 0, 1, or 2, and greater than 3 month life expectancy
- Adequate hematological parameters (ANC greater than or equal to 1.5 x 10^9/L and platelets greater than or equal to 100 x 10^9/L)
- Adequate renal and hepatic function

**EXCLUSIONS:**
- patients who have progressed on prior taxane therapy
- pregnancy or lactation
- severe hepatic dysfunction contraindicating PACLitaxel NAB
- greater than or equal to grade 2 sensory or motor neuropathy

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

**PREMEDICATIONS:**
- Additional anti-emetics not usually required.

**TREATMENT:**

<table>
<thead>
<tr>
<th>Drug</th>
<th>Dose</th>
<th>BC Cancer Administration Guideline</th>
</tr>
</thead>
<tbody>
<tr>
<td>PACLitaxel NAB (ABRAXANE)</td>
<td>260 mg/m²</td>
<td>IV over 30 minutes*</td>
</tr>
</tbody>
</table>

*in empty sterile bags and tubing with 15 micron filter; no specific material required for bag or tubing

Repeat every 21 days x 6 cycles. Discontinue if no response after 2 cycles. If patient still receiving benefit after 6 cycles, further 2 cycles may be given.

Activated: 1 Nov 2007 (as UBRAVBR)  Revised: 1 Sep 2020 (Drug name clarified)

Warning: The information contained in these documents are a statement of consensus of BC Cancer professionals regarding their views of currently accepted approaches to treatment. Any clinician seeking to apply or consult these documents is expected to use independent medical judgement in the context of individual clinical circumstances to determine any patient’s care or treatment. Use of these documents is at your own risk and is subject to BC Cancer’s terms of use available at www.bccancer.bc.ca/terms-of-use
DOSE MODIFICATIONS:

1. Hematological

<table>
<thead>
<tr>
<th>ANC (x 10^9/L)</th>
<th>Platelets (x 10^9/L)</th>
<th>Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>greater than or equal to 1.5 and greater than or equal to 100</td>
<td>100% (260 mg/m^2)</td>
<td></td>
</tr>
<tr>
<td>1.0 to less than 1.5 and greater than or equal to 100</td>
<td>220 mg/m^2</td>
<td></td>
</tr>
<tr>
<td>less than 1.0 or less than 100</td>
<td>Delay until ANC greater than or equal to 1.5 and platelets greater than or equal to 100 then consider giving 220 mg/m^2</td>
<td></td>
</tr>
</tbody>
</table>

Febrile Neutropenia

<table>
<thead>
<tr>
<th>1st Occurrence</th>
<th>2nd Occurrence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delay until recovery (ANC greater than or equal to 1.5 x 10^9/L and plts greater than or equal to 100 x 10^9/L), then dose reduce to 220 mg/m^2**</td>
<td>Delay until recovery (ANC greater than or equal to 1.5 x 10^9/L and plts greater than or equal to 100 x 10^9/L), then dose reduce to 180 mg/m^2**</td>
</tr>
</tbody>
</table>

**Dose reductions should be maintained for subsequent cycles and not re-escalated.

2. Sensory Neuropathy

<table>
<thead>
<tr>
<th>Grade</th>
<th>Toxicity</th>
<th>Dose – 1st Occurrence</th>
<th>Dose – 2nd Occurrence</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Asymptomatic; loss of deep tendon reflexes or paresthesia (including tingling) but not interfering with function</td>
<td>Maintain dose</td>
<td>Maintain dose</td>
</tr>
<tr>
<td>2</td>
<td>Sensory alteration or paresthesia (including tingling) but not interfering with function, but not interfering with ADL</td>
<td>Maintain dose</td>
<td>Maintain dose</td>
</tr>
<tr>
<td>3</td>
<td>Sensory alteration or paresthesia interfering with ADL</td>
<td>Hold treatment until resolved to grade 2, then reduce dose to 220 mg/m^2**</td>
<td>Hold treatment until resolved to grade 2, then reduce dose to 180 mg/m^2**</td>
</tr>
<tr>
<td>4</td>
<td>Disabling</td>
<td>Hold treatment until resolved to grade 2, then reduce dose to 220 mg/m^2**</td>
<td>Hold treatment until resolved to grade 2, then reduce dose to 180 mg/m^2** or discontinue further therapy</td>
</tr>
</tbody>
</table>

**Dose reductions should be maintained for subsequent cycles and not re-escalated.
3. **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 **NAB**
   - 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 persist, reduce subsequent PACLitaxel **NAB** doses to 220 mg/m².

**PRECAUTIONS:**
1. An albumin form of PACLitaxel may substantially affect a drug’s functional properties relative to those of drug in solution. **Do not** substitute with or for other PACLitaxel formulations.
2. **Extravasation**: Nab-PACLitaxel causes pain and tissue necrosis if extravasated. Refer to BC Cancer Extravasation Guidelines.
3. **Neutropenia**: Fever or other evidence of infection must be assessed promptly and treated aggressively.
4. **Hepatic Dysfunction**: PACLitaxel **NAB** has not been studied in patient with bilirubin greater than 25 micromol/L
5. **Renal Dysfunction**: PACLitaxel **NAB** has not been studies in patients with serum creatinine greater than 177 micromol/L
6. PACLitaxel **NAB** is metabolized by CYP2C8 and CYP3A4; caution should be exercised when administering with drugs which are CYP2C8 or CYP3A4 inducers or inhibitors.
7. Cardiac toxicity has been reported rarely while patients receive PACLitaxel **NAB**. Severe cardiovascular events (3%), including chest pain, cardiac arrest, supraventricular tachycardia, edema, thrombosis, pulmonary thromboembolism, pulmonary emboli, and hypertension.
8. Theoretical risk of viral disease transmission, due to human albumin component, is extremely remote.

**Call 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.**

**References:**