**BC Cancer Protocol Summary for the Treatment of Sarcomas with vinCRISTine, DOXOrubicin and Cyclophosphamid (SAVAC)**

<table>
<thead>
<tr>
<th><strong>Protocol Code</strong></th>
<th>SAVAC</th>
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<tbody>
<tr>
<td><strong>Tumour Group</strong></td>
<td>Sarcoma</td>
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<tr>
<td><strong>Contact Physician</strong></td>
<td>Dr. Christine Simmons</td>
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</tbody>
</table>

**ELIGIBILITY:**
- Ewing’s sarcoma/peripheral neuroectodermal tumour or rhabdomyosarcoma – for whom alternating protocol is not appropriate
- Good performance status
- Adequate bone marrow, liver and kidney function

**EXCLUSIONS:**
- Pelvic primaries where bladder will receive radiotherapy (should treat with SAVACM)

**TESTS:**
- Baseline and before each treatment: CBC and diff, platelets, creatinine, bilirubin, *ALT*, alk phos, GGT, LDH
- Urine dipstick for blood before each treatment – if positive at any time, notify doctor and send urine sample for urinalysis for verification and accurate determination of hematuria. If hematuria verified (ie 50 RBC/hpf on urinalysis report), switch to SAVACM.
- If clinically indicated: ECG

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

**TREATMENT:**
- Repeat every 3 weeks.
- SAVAC is not usually given during radiotherapy unless the tumour is extremity primary
- Admit for cycle one. If well tolerated, subsequent cycles can be given as an outpatient. Cycle one may be given as an outpatient as per clinician’s clinical judgement.
<table>
<thead>
<tr>
<th>Drug</th>
<th>Dose</th>
<th>BC Cancer Administration Guideline</th>
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<tbody>
<tr>
<td>vinCRISTine</td>
<td>1.5 mg/m²</td>
<td>IV in 50 mL NS over 15 min (maximum dose = 2 mg)</td>
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<tr>
<td>DOXOrubicin</td>
<td>75 mg/m²</td>
<td>IV push</td>
</tr>
<tr>
<td>cyclophosphamide</td>
<td>1200 mg/m²</td>
<td>IV in 500 mL D5W-1/2 NS over 60 minutes</td>
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DOSE MODIFICATIONS:
1. **Hematological:** Adjust DOXOrubicin and cyclophosphamide doses only

<table>
<thead>
<tr>
<th>ANC (x10⁹/L)</th>
<th>Platelets (x10⁹/L)</th>
<th>Doses</th>
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<tbody>
<tr>
<td>greater than or equal to 0.75 and greater than or equal to 100</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>less than 0.75 or less than 100</td>
<td>delay 1 week*</td>
<td></td>
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*If counts remain low after a 1 week delay, consult Dr. Simmons for further dose modifications.

2. **Nausea & Vomiting:** If greater than 10 episodes of emesis post-chemotherapy despite optimal use of antiemetics and/or if parenteral fluid support is required, reduce dose of cyclophosphamide and DOXOrubicin to 80%.

3. **Hepatic dysfunction:** Dose modifications may be required for DOXOrubicin and vinCRISTine (see BC Cancer Drug Manual)

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

5. **Neutropenic Fever** (with ANC less than 0.5 x 10⁹/L): Once counts have recovered, reduce dose of cyclophosphamide and DOXOrubicin to 80%

6. **Hematuria:** Call Dr. Simmons– Use SAVACM for subsequent cycles

PRECAUTIONS:
1. **Cardiac Toxicity:** DOXOrubicin is cardiotoxic and must be used with caution in patients with severe hypertension or cardiac dysfunction. Cardiac assessment is recommended if lifelong dose of 450 mg/m² is exceeded (see BC Cancer Drug Manual).

2. **Extravasation:** DOXOrubicin and vinCRISTine cause 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.

Call Dr. Christine Simmons or tumour group delegate at (604) 877-6000 or 1-800-663-3333 with any problems or questions regarding this treatment program.

References: