BC Cancer Protocol Summary for the Treatment of Sarcomas with Pelvic Primaries or Chemotherapy-Induced Hematuria using vinCRISTine, DOXOrubicin, Cyclophosphamide and Mesna

Protocol Code
SAVACM

Tumour Group
Sarcoma

Contact Physician
Dr. Christine Simmons

ELIGIBILITY:
- Ewing’s sarcoma/peripheral neuroectodermal tumour or rhabdomyosarcoma in pelvic sites or pediatric type small round blue cell tumours in patients for whom alternating protocol is not appropriate where treatment includes pelvic radiotherapy
- Patients with hematuria due to ifosfamide or cyclophosphamide
- Good performance status
- Adequate bone marrow, liver and kidney function

TESTS:
- Baseline and before each treatment: CBC and diff, platelets, creatinine, bilirubin, ALT, alkaline phosphatase, GGT, LDH
- Urine dipstick for blood before each treatment and every 8 hours during treatment – if positive at any time, notify doctor and send urine sample for urinalysis and verification and accurate determination - refer to supportive care protocol SCMESNA (follow SCMESNA (SAVACM/SAVDCM) preprinted order)
- If clinically indicated: ECG

PREMEDICATIONS:
- Antiemetic protocol for highly emetogenic chemotherapy protocols (see SCNAUSEA)
- LORazepam 1 mg SL every 4 to 6 hours as needed
- prochlorperazine 10 mg po/IV every 4 to 6 hours as needed
- nabilone 1 mg po every 6 to 8 hours as needed

TREATMENT:
- Repeat every 3 weeks.
- SAVACM is not given during radiotherapy; omit DOXOrubicin and continue with vinCRISTine, cyclophosphamide and mesna.
<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</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(maximum dose = 2 mg)</td>
</tr>
<tr>
<td>DOXOrubicin</td>
<td>75 mg/m²</td>
<td>IV push</td>
</tr>
<tr>
<td>mesna</td>
<td>240 mg/m²</td>
<td>Hour 0:30: IV in 100 mL D5W over 15 min</td>
</tr>
<tr>
<td>cyclophosphamide</td>
<td>1200 mg/m²</td>
<td>IV in 500 mL D5W-1/2 NS over 1 hour</td>
</tr>
<tr>
<td>mesna</td>
<td>240 mg/m²</td>
<td>Hours 5 and 8: IV in 100 mL D5W over 15 min OR 480 mg/m² PO in carbonated beverage</td>
</tr>
</tbody>
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**HYDRATION:**

<table>
<thead>
<tr>
<th>Time</th>
<th>Hydration</th>
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<tbody>
<tr>
<td>Hours 1:45 to 11</td>
<td>IV D5W-1/2 NS at 250 mL/h</td>
</tr>
<tr>
<td>Hours 11 to 24</td>
<td>IV D5W-1/2 NS at 125 mL/h</td>
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If no hematuria and patient is drinking well, IV hydration may be discontinued at Hour 15.

**DOSE MODIFICATIONS:**

1. **Hematological:** Adjust DOXOrubicin and cyclophosphamide doses only

<table>
<thead>
<tr>
<th>ANC (x10^9/L)</th>
<th>Platelets (x10^9/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>
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</table>

*if counts remain low after 1 week delay, consult physician 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 $0.5 \times 10^9/L$): Once counts have recovered, reduce dose of cyclophosphamide and DOXOrubicin to 80%

6. **Hematuria**: Refer to SCMESNA protocol (follow SCMESNA (SAVACM/SAVDCM) pre-printed order).

**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 $450 \text{ mg/m}^2$ 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 @ (604) 877-6000 or 1-800-663-3333 with any problems or questions regarding this treatment program.

**References:**