BC Cancer Protocol Summary for Adjuvant Therapy for Rhabdomyosarcoma using vinCRIStine, DACTINomycin, Cyclophosphamide and Mesna

**Protocol Code**  
SAVDCM

**Tumour Group**  
Sarcoma

**Contact Physician**  
Dr. Christine Simmons

**ELIGIBILITY:**
- Treatment of rhabdomyosarcoma\(^1,2\) instead of SAVACM or SAVDC
- Treatment of sarcomas\(^3\) where DOXOrubicin cumulative dose target has been reached using SAVACM
- Good performance status
- Adequate bone marrow, liver and kidney function
- Treatment of patients who develop hematuria on SAVDC

**TESTS:**
- Baseline and before each treatment: CBC & 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 of hematuria - refer to supportive care protocol SCMESNA

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

**TREATMENT:**
- Repeat every 3 weeks.
- May alternate every 2 or 3 weeks with SAIME
- SAVDCM is not given during radiotherapy; omit DACTINomycin and continue with vinCRIStine and cyclophosphamide until radiotherapy is completed.
- May be given as inpatient OR outpatient chemotherapy
<table>
<thead>
<tr>
<th>Drug</th>
<th>Dose</th>
<th>BC Cancer Administration Guideline</th>
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</thead>
<tbody>
<tr>
<td>vinCRISTine</td>
<td>1.5 mg/m²</td>
<td>IV in 50 mL NS over 15 minutes</td>
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<tr>
<td></td>
<td></td>
<td>(maximum dose = 2 mg)</td>
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<tr>
<td>DACTINomycin</td>
<td>40 mcg/kg</td>
<td>IV push (maximum dose = 2.5 mg)</td>
</tr>
<tr>
<td>mesna</td>
<td>240 mg/m²</td>
<td>IV in 100 mL D5W over 15 minutes</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>HR 5 and 8: IV in 100 mL D5W over 15 minutes OR 480 mg/m² PO in carbonated beverage</td>
</tr>
</tbody>
</table>

**HYDRATION**: 

| Hours 1:45 to 11 | IV D5W-1/2 NS at 250 mL/h |
| Hours 11 to 24   | IV D5 W-1/2 NS at 125 mL/h. |

If no hematuria and patient is drinking well, IV hydration may be discontinued at Hour 15.

**optional if patient able to drink 2 litres per day as per clinical judgement of oncologist**

**DOSE MODIFICATIONS:**

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

<table>
<thead>
<tr>
<th>ANC (x10⁹/L)</th>
<th>Platelets (x10⁹/L)</th>
<th>Doses</th>
</tr>
</thead>
<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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</tbody>
</table>

*if counts remain low after 1 week delay, consult Dr. Knowling 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 DACTINomycin and cyclophosphamide to 80%

3. **Hepatic dysfunction**: Dose modifications may be required for DACTINomycin 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, either give 100% dosing with G-CSF coverage or reduce dose of DACTINomycin and cyclophosphamide to 80%.

6. **Hematuria:** Refer to SCMESNA protocol.

**PRECAUTIONS:**
1. **Extravasation:** DACTINomycin and vinCRIStine cause pain and tissue necrosis if extravasated. Refer to BC Cancer Extravasation Guidelines.
2. **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:**