

BCCA Protocol Summary for Adjuvant Therapy for Rhabdomyosarcoma using Vincristine, Dactinomycin, Cyclophosphamide and Mesna

Protocol Code SAVDCM

Tumour Group Sarcoma

Contact Physician Dr. Meg Knowling

ELIGIBILITY:

- Treatment of Rhabdomyosarcoma^{1,2} instead of SAVAC+M
- Treatment of Sarcomas³ where Doxorubicin cumulative dose target has been reached using SAVAC+M
- Good performance status
- Adequate bone marrow, liver and kidney function

TESTS:

- Baseline and before each treatment: CBC & platelets, creatinine, bilirubin, liver enzymes and objective measure of tumour response

PREMEDICATIONS:

- Antiemetic protocol for high-moderate emetogenic chemotherapy protocols (see [SCNAUSEA](#))

TREATMENT:

- Repeat every 6 weeks, alternating with SAIME every 3 weeks. For young patients with Ewings Sarcoma, may repeat every 4 weeks, alternating with SAIME every 2 weeks.
- SAVDC+M is not given during radiotherapy. Repeat SAIME every 2 or 3 weeks until radiotherapy is completed.
- May be given as inpatient OR outpatient chemotherapy

Drug	Dose	BCCA Administration Guideline
Vincristine	1.5 mg/m ²	IV in 50 mL NS over 5-15 minutes (maximum dose = 2 mg)
Dactinomycin	40 mcg/kg	IV push (maximum dose = 2.5 mg)
Cyclophosphamide	1200 mg/m ²	IV in 500 mL D5½NS with Mesna 240 mg/m ² over 60 minutes
Mesna	240 mg/m ²	HR 5 and 8: IV in 100 mL D5W over 15 minutes <u>OR</u> 480 mg/m ² PO in carbonated beverage

HYDRATION:

HR 5 – 11	IV D5½NS at 250 mL/hr
HR 11 – 24	IV D5½NS at 125 mL/hr. If no hematuria and patient is drinking well, IV hydration may be discontinued at HR 15.

DOSE MODIFICATIONS:

1. **Hematological:** Adjust Dactinomycin and Cyclophosphamide doses only

a. Pre-radiotherapy/pre-operative phase:

ANC (x10 ⁹ /L)		Platelets (x10 ⁹ /L)	Doses
greater than or equal to 0.5	and	greater than or equal to 100	100%
less than 0.5	or	Less than 100	delay 1 week*

b. Post-radiotherapy/post-operative phase:

ANC (x10 ⁹ /L)		Platelets (x10 ⁹ /L)	Doses
greater than or equal to 0.75	and	greater than or equal to 100	100%
less than 0.75	or	Less than 100	delay 1 week*

*if counts remain low after 1 week delay, consult Dr. Knowing for further dose modifications.

- 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%
- Hepatic dysfunction:** Dose modifications may be required for Dactinomycin and Vincristine (see BCCA Cancer Drug Manual)
- Renal dysfunction:** Dose modification may be required for Cyclophosphamide (see BCCA Cancer Drug Manual).
- Neutropenic Fever** (with ANC less than 0.5 x 10⁹/L): Once counts have recovered, either give 100% dosing with G-CSF coverage or reduce dose of Dactinomycin and Cyclophosphamide to 80%
- Hematuria:** Refer to [SCMESNA](#) protocol.

PRECAUTIONS:

1. **Extravasation:** Dactinomycin and Vincristine cause pain and tissue necrosis if extravasated. Refer to BCCA Extravasation Guidelines.
2. **Neutropenia:** Fever or other evidence of infection must be assessed promptly and treated aggressively.

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

Date activated: **1 Jan 2010**

Date revised:

References:

1. Raney RB, Maurer HM, Anderson JR, et al. The Intergroup Rhabdomyosarcoma Study Group (IRSG): major lessons from the IRS-I through IRS-IV studies as background for the current IRS-V treatment protocols. *Sarcoma* 2001;5(1):9-15.
2. Arndt CA, Stoner JA, Hawkins DS, et al. Vincristine, actinomycin, and cyclophosphamide compared with vincristine, actinomycin, and cyclophosphamide alternating with vincristine, topotecan, and cyclophosphamide for intermediate-risk rhabdomyosarcoma: Children's Oncology Group Study D9803. *J Clin Oncol* 2009;31(1):5182-8.
3. Grier HE, Krailo MD, Tarbell NJ, et al. Addition of ifosfamide and etoposide to standard chemotherapy for Ewing's sarcoma and primitive neuroectodermal tumor of bone. *N Engl J Med* 2003;348(8):694-701.