

# **BCCA Protocol Summary for Single Dose Cyclophosphamide Priming Therapy for Multiple Myeloma Prior to Autologous Stem Cell Transplant (Leukemia/BMT Program of BC- BCCA)**

**Protocol Code**

*MYHDC*

**Tumour Group**

*Leukemia/BMT*

**Contact Physician**

*Dr. Heather Sutherland*

## **ELIGIBILITY:**

- Priming therapy for patients with Multiple Myeloma who are being considered for autologous stem cell transplant.
- Patients eligible at any stage of disease after assessment by L/BMT physician

## **TESTS:**

- CBC & Diff, electrolytes, urea, creatinine, total and direct bilirubin, alkaline phosphatase, AST, calcium, INR, PTT, SPE, quantitative immunoglobulins prior to chemotherapy
- Baseline (required, but results do not have to be available to proceed with first treatment; results must be checked before proceeding with next treatment): HBsAg, HBsAb, HBcoreAb
- If clinically indicated: HBV viral load, ALT (see protocol SCHBV)

## **PREMEDICATIONS:**

- Ondansetron 8 mg IV
- Dexamethasone 8mg IV
- Prehydration with NS at 500 mL/hr for 2 hours before cyclophosphamide

## **SUPPORTIVE MEDICATIONS:**

- Moderate to high risk of hepatitis B reactivation. If HBsAg or HBcoreAb positive, follow hepatitis B prophylaxis as per [SCHBV](#).

## TREATMENT:

Note: Chemotherapy dose is calculated using the corrected body weight (IBW + ABW)/2 unless actual weight is less than ideal. Ideal Body Weight calculation to be used is as follows:

### Body Weight Calculations:

Males:  $IBW (kg) = 51.65 + 0.73(\text{height in cm} - 152.4)$

Females:  $IBW (kg) = 48.67 + 0.65(\text{height in cm} - 152.4)$

Drug	Dose	BCCA Administration Guidelines
visit BCCA admitting before chemotherapy		registration and paperwork
attend VGH CSU before chemotherapy		vein assessment, lab work, G-CSF teaching and arrangements for blood count follow-up
Cyclophosphamide	1500 mg/m <sup>2</sup> OR 2500 mg/m <sup>2</sup>	IV in 500 mL NS over 2 hours
Furosemide	20 mg	IV after completion of Cyclophosphamide
Stem Cell Collection		VGH Cell Separator Unit about 10 days after chemo

## DOSE MODIFICATIONS:

This is a single dose therapy used as priming for stem cell collection; the decision to proceed will have been made prior to the patient attending the ACCU and therefore there is no dose reduction for chemo on the day of the clinic visit. If in doubt about any patient, contact the BMT physician/fellow.

## PRECAUTIONS:

- Neutropenia:** Fever or other evidence of infection must be assessed promptly and treated aggressively. Patients will be given a prescription for prophylactic antibiotic (ciprofloxacin 500mg PO bid starting on day+5 x 7 days) and an instruction sheet indicating whom they are to call in the event of fever. They will also be given a prescription for filgrastim (G-CSF) 5 mcg/kg SC daily starting on day 3 for 7 days. Another prescription is written for 10 mcg/kg x 1 day for the patient to use in the event that stem cell collection on the first day is incomplete. Please round the dose to 300 mcg or 480 mcg vials.
- Hemorrhagic Cystitis:** Although not expected to be common at this dose, this is a potential complication of high dose Cyclophosphamide. Patients should be instructed to drink large amounts of fluid for 48 hours after treatment and to contact the BMT clinic if they are unable to do so because of nausea etc.
- Hepatitis B Reactivation:** See [SCHBV protocol](#) for more details.

**Call Dr. Heather Sutherland (604-875-4863) with any problems or questions regarding this treatment program. For individual patient issues, contact the primary BMT physician at 604-875-4863 or via VGH locating at 604-875-5000.**

Date                    N/A  
activated:

Date revised: 1 Dec 2024 (Tests and precautions updated, supportive medications added)