

Regimen Reference Order – BMT – High Dose cyclophosphamide

ARIA: BMT - [Auto PBPC High Dose cyclo]

Planned Course: Single course

Indication for Use: Mobilization for Autologous Stem Cell Collection

CVAD: At Provider's Discretion

Proceed with treatment if:

ANC equal to or greater than $1.5 \times 10^9/L$ AND Platelets equal to or greater than $100 \times 10^9/L$

❖ Contact Leukemia/Bone Marrow Transplant (L/BMT) Physician if parameters not met

SEQUENCE OF MEDICATION ADMINISTRATION

Pre-treatment Requirements

Drug	Dose	CCMB Administration Guideline
Not Applicable		

Treatment Regimen – BMT – High Dose cyclophosphamide

Establish primary solution 500 mL of: normal saline

Drug	Hour	Dose	CCMB Administration Guideline
normal saline	minus 60 minutes	1500 mL	IV over 5 hours: 500 mL/hour for one hour before chemotherapy, then reduce rate to 250 mL/hour until "Hour 4"
ondansetron	minus 30 minutes	16 mg	Orally 30 minutes pre-chemotherapy
dexamethasone	minus 30 minutes	12 mg	Orally 30 minutes pre-chemotherapy
mesna	minus 15 minutes	300 mg/m ²	IV in normal saline 50 mL over 15 minutes Immediately prior to cyclophosphamide
cyclophosphamide	Hour 0	1500 mg/m ²	IV in normal saline 500 mL over 2 hours <i>*Alert: start of cyclophosphamide infusion will be considered "Hour 0"</i>
furosemide	Hour 2	20 mg	IV Push over 2 – 3 minutes
mesna	Hour 4	300 mg/m ²	IV in normal saline 50 mL over 15 minutes
mesna	Hour 6	600 mg/m ²	Orally with juice or soft drink (Self-administered at home) <i>*Nursing Alert: Inform patient time to take dose</i>

In the event of an infusion-related hypersensitivity reaction, refer to the 'Hypersensitivity Reaction Standing Order'

REQUIRED MONITORING

Day 1

- CBC, serum creatinine, urea, AST, ALT, total bilirubin, uric acid, sodium, potassium, calcium, albumin, magnesium and phosphate as per Physician Orders

Day 9

- CBC, full biochemistry, Type and Screen and CD 34 count as per Physician Orders

Day 10

- CBC, full biochemistry and CD 34 count as per Physician Orders

Recommended Support Medications

Drug	Dose	CCMB Administration Guideline
filgrastim (brand name specific) (See <i>Filgrastim Clinical Guide</i>)	10 mcg/kg (rounded to nearest 300 mcg or 480 mcg)	Subcutaneously once daily for 7 days to start on Day 3 May be given up to an additional 4 days, if required
ondansetron	8 mg	Orally every 12 hours for 5 doses beginning evening of Day 1
dexamethasone	4 mg	Orally once 12 hours after chemotherapy on Day 1

DISCHARGE INSTRUCTIONS

- Instruct patient to:
 - Continue taking anti-emetic(s) at home
 - Maintain oral intake of 2000 mL (8 glasses) of fluid daily at home
 - Empty bladder every 2 hours while awake and at bedtime for 24 hours
 - Obtain immediate assistance as per your clinic's contact instructions if:
 - Signs of hemorrhagic cystitis
 - Unable to drink recommended amount of fluid
- Self-administer "Hour 6" of mesna by mixing the contents of the mesna syringe in juice (not grapefruit) or soft drink
- If patient vomits "Hour 6" mesna within 2 hours of taking, they should be advised to contact their cancer team
Patient may require intravenous hydration
- Reinforce applicable safe handling precautions of medications, blood and body fluids for 48 hours after completion of chemotherapy

ADDITIONAL INFORMATION

- Treatment should be booked at earliest morning appointment
- Patient may be prescribed plerixafor as part of stem cell collection. A separate order will be arranged if plerixafor is required
- Support protocol is available under **Auto High Dose Cyclo** in the "Bone Marrow Transplant" folder