

COMPLETE OR REVIEW ALLERGY STATUS PRIOR TO WRITING ORDERS

BMT MA CYTBIATG
RELATED OR UNRELATED DONOR ALLOGENEIC STEM CELL TRANSPLANT MYELOABLATIVE
CONDITIONING with CYCLOPHOSPHAMIDE, TOTAL BODY IRRADIATION and ANTI-THYMOCYTE GLOBULIN
(items with check boxes must be selected to be ordered) (Page 1 of 4)

Date: _____ Time: _____

☐ **Consent signed for chemotherapy**

Must be completed prior to ordering chemotherapy: This person of child bearing potential has been assessed for the possibility of pregnancy.

Prescriber's signature

Printed name

College ID

Time
Processed
RN/LPN Initials
Comments

Chemotherapy Dosing Calculations

| | |
|---|-------------------------------------|
| Height: _____ cm | Actual Weight: _____ kg |
| ▪ Document height and weight on Nursing Assessment Form and must be co-signed by 2 RNs | |
| $BMI(kg/m^2) = \frac{Weight(kg)}{[Height(m)]^2}$ OR https://www.nhlbi.nih.gov/health/educational/lose_wt/BMI/bmi-m.htm | BMI = _____ kg/m ² |
| Ideal Body Weight: | |
| Male = 50 + 0.91 (height in cm – 152.4) Female = 45.5 + 0.91 (height in cm – 152.4) | Ideal Body Weight = _____ kg |
| Adjusted Body Weight (ABW): | |
| ABW = Ideal Body Weight (IBW) + 0.4(Actual Body Weight – IBW) | Adjusted Body Weight = _____ kg |
| $BSA(m^2) = \sqrt{\frac{Height(cm) \times Weight(kg)}{3600}}$ | BSA = _____ m ² |
| Round all BSA calculations to 2 decimal places | Adjusted BSA = _____ m ² |

Use Adjusted body weight or Adjusted BSA to calculate chemotherapy doses when Ideal Body Weight is less than Actual Weight

MONITORING:

Urine hemastix once prior to cyclophosphamide, then once daily until 48 hours after the completion of cyclophosphamide. Start day -6 (date): _____

Measure in/output Q4H during hyperhydration with cyclophosphamide. See Supportive Care.

During each anti-thymocyte globulin (rabbit) infusion: Monitor vital signs Q15MIN x 4; then Q30MIN x 4; then Q4H.

LABORATORY:

Serum creatinine and bilirubin (total and direct) level in AM of each methotrexate dose.

Day +2 (date): _____ draw cyclosporine trough level at 05:30 and repeat every Monday and Thursday.

Day +7 (date): _____ draw CMV PCR then repeat every Monday through day +100 or longer if indicated.

Day +7 (date): _____ draw EBV PCR then repeat every Monday through day +100 or longer if indicated

Prescriber's Signature

Printed Name

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Vancouver Coastal Health
 VA: VGH / UBC / GFS
 VC: BP / Purdy / GPC

ADDRESSOGRAPH

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INTRAVENOUS:

Hyperhydration:

potassium chloride _____ mmol and magnesium sulphate _____ g in dextrose 5%-sodium chloride 0.45% (D5 1/2 NS) 1000 mL IV at _____ mL/h (3000 mL/m²/day) at 06:00 starting on day -6 (date): _____ and continue until 48 hours after last dose of cyclophosphamide then decrease to _____ mL/h.

MEDICATIONS:

Premedications:

Starting day -6 (date) _____, 30 minutes prior to first dose of chemotherapy, give aprepitant 125 mg daily x 1, then give 80 mg daily x 2 days (day -5 and day -4), then stop.

Starting day -6 (date) _____, to day -1 (date) _____, 30 minutes prior to first dose of chemotherapy, give:
 ondansetron 8 mg PO BID *AND*
 dexamethasone 8 mg PO daily

Starting day 0 (date) _____ to day +1 (date) _____, give dexamethasone 8 mg PO daily x 2 days

Breakthrough nausea and vomiting anti-emetics:

- ☐ prochlorperazine 10 mg PO Q6H PRN
- ☐ metoclopramide 10 to 20 mg PO/IV Q6H PRN
- ☐ LORazepam 1 mg PO/IV Q6H PRN

Chemotherapy:

BCCA Code for PCIS order entry: BMTNOS

All intensive chemotherapy and transplant chemotherapy orders require 2 prescriber signatures, one of whom must be an attending physician.

cyclophosphamide _____ mg (50 mg/kg, round to nearest 100 mg) in sodium chloride 0.9% (NS) IV over 2 hours at 10:00 daily.

Give day -6 (date): _____, day -5 (date): _____, and day -4 (date): _____. Total of 3 doses.

furosemide 20 mg IV after the completion of each dose of cyclophosphamide.

Total Body Irradiation (200 cGy BID) on day -3 (date): _____, day -2 (date): _____, day -1 (date): _____,

 Prescriber's Signature

 Printed Name
 VCH.VA.PPO.966 | Rev.JUN.2022

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MEDICATIONS:

Chemotherapy continued:

anti-thymocyte globulin (rabbit, THYMOGLOBULIN) (use actual weight)
 Give on day -3 (date): _____ (dose) _____ mg (0.5 mg/kg, round to nearest 1 mg) IV x 1 dose at 16:00.
 Give on day -2 (date): _____ (dose) _____ mg (2 mg/kg, round to nearest 5 mg) IV x 1 dose at 16:00.
 Give on day -1 (date): _____ (dose) _____ mg (2 mg/kg, round to nearest 5 mg) IV x 1 dose at 10:00.
 Total of 3 doses (4.5 mg/kg total)

Premedications for each anti-thymocyte globulin (rabbit) infusion:
 diphenhydramine 50 mg PO x 1 dose one hour prior to, and Q4H during the infusion
 acetaminophen 650 mg PO x 1 dose once hour prior to, and Q4H during the infusion
 hydrocortisone 100 mg IV x 1 dose one hour prior

Infuse anti-thymocyte globulin (rabbit) through an in-line 0.2 micron filter. Initial dose (day -3) to be infused over 8 to 12 hours (up to 24 hours) If no reaction, subsequent doses can be infused over a minimum of 4 hours.

Confirm the need for each dose with Pharmacy.

Hematopoietic progenitor cells to be infused on day 0 (date): _____

Stem cell infusion can be performed immediately after the last dose of TBI; in this case day -1 becomes day 0.

GRAFT VERSUS HOST DISEASE PROPHYLAXIS:

BCCA Code for PCIS order entry: NOT COVERED

All intensive chemotherapy and transplant chemotherapy orders require 2 prescriber signatures, one of whom must be an attending physician.

cycloSPORINE _____ mg (1.5 mg/kg, use actual weight, round dose to nearest 5 mg) in dextrose 5% (D5W) IV Q12H at 06:00 and 18:00. Infuse over 4 hours. Start at 18:00 on Day -2 (date) _____

methotrexate:

Use Adjusted BSA to calculate methotrexate dose when Ideal Body Weight is less than Actual Weight Check with prescriber prior to giving each dose of methotrexate.

methotrexate _____ mg (15 mg/m², round to nearest 1 mg) IV over 20 minutes. Administer at least 24 hours after hematopoietic progenitor cell infusion.

Start on Day +1 (date) _____

methotrexate _____ mg (10 mg/m², round to nearest 1 mg) IV over 20 minutes.

Give on Day +3 (date) _____, Day +6 (date) _____, and Day +11 (date) _____

Prescriber's Signature _____

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Supportive Care:

furosemide 20 mg IV x 1 dose PRN if output less than 400 mL in a 4 hour period during hyperhydration for cyclophosphamide.

ursodiol (choose ONE dosing regimen only):

- ☐ 250 mg PO BID (for actual weight less than 40 kg)
☐ 250 mg PO AM and 500 mg PO PM (for actual weight 40 kg to 70 kg)
☐ 500 mg PO BID (for actual weight greater than 70 kg)

Start on day -7 (date): _____ and continue until day +90 (date): _____

micafungin 100 mg IV daily. Start day +1 (date): _____

If HSV seropositive recipient give:

- ☐ valACYclovir 500 mg PO BID *OR* acyclovir _____ mg (5 mg/kg, round to nearest 25 mg, use ideal body weight if patient BMI is 30 or greater) IV Q12H.
 Start day +1 (date): _____

Fever orders: as per completed FEBRILE NEUTROPENIA – INPATIENT INITIAL MANAGEMENT (#302) PRE-PRINTED ORDERS.

Cell Infusion: as per completed INFUSION of HEMATOPOIETIC PROGENITOR CELLS or THERAPEUTIC CELLS (#503) PRE-PRINTED ORDERS.

NOTES TO PRESCRIBER (Unit Clerk/Pharmacy do not process – reminders for Prescriber only).

If HBsAg or Anti-HBc positive start lamivudine 100 mg PO daily (complete Special Authority Form) and continue until at least 12 months post-transplant or longer if patient continues immunosuppressive drugs.
 PJP prophylaxis should be started by day+28 and continue until at least 12 months post transplant or longer if patient continues immunosuppressive drugs.
 Continue VZV prophylaxis until at least 12 months post transplant or longer if patient continues immunosuppressive drugs.
 Refer to L/BMT manual for methotrexate dosing guidelines.