Regimen Reference Order – LYMP – alemtuzumab (IV)

ARIA: LYMP – [alemtuzumab (IV)]

Planned Course: Three times per week for 13 weeks
Indication for Use: T-cell prolymphocytic leukemia

CVAD: At Provider's Discretion

Proceed with treatment if:

ANC equal to or greater than 0.25 x 10^9/L AND Platelets equal to or greater than 25 x 10^9/L

- **Contact Physician if parameters not met**

***Note:* Hepatitis B serology results must be reviewed in accordance with CCMB Policy Hepatitis B Monitoring for Oncology and Hematology Patients**

SEQUENCE OF MEDICATION ADMINISTRATION

Pre-treatment Requirements

Drug	Dose	CCMB Administration Guideline
allopurinol	300 mg	Orally once daily for 10 days to begin 3 days prior to Cycle 1 **(Self-administered at home)** Only patients at risk of tumor lysis syndrome will be prescribed allopurinol Note: allopurinol should not be prescribed beyond 10 days unless under the direction of the hematologist. See *Additional Information*

Treatment Regimen – LYMP – alemtuzumab (IV)

Establish primary solution 500 mL of: normal saline

Drug	Dose	CCMB Administration Guideline
Week 1 – Three doses per week (usually given on three consecutive days)		
Dose 1		
acetaminophen	975 mg	Orally 30 minutes prior to alemtuzumab
cetirizine	10 mg	Orally 30 minutes prior to alemtuzumab
dexamethasone	12 mg	IV in normal saline 50 mL over 15 minutes
Wait 30 minutes after completion of IV pre-medication(s) before starting alemtuzumab		
alemtuzumab	3 mg	IV in normal saline 100 mL over 2 hours
meperidine	25 to 50 mg	IV push over 5 minutes if needed for the treatment of rigors
Dose 2		
acetaminophen	975 mg	Orally 30 minutes prior to alemtuzumab
cetirizine	10 mg	Orally 30 minutes prior to alemtuzumab
dexamethasone	12 mg	IV in normal saline 50 mL over 15 minutes

Wait 30 minutes after completion of IV pre-medication(s) before starting alemtuzumab		
alemtuzumab	10 mg	IV in normal saline 100 mL over 2 hours
meperidine	25 to 50 mg	IV push over 5 minutes if needed for the treatment of rigors
Dose 3		
acetaminophen	975 mg	Orally 30 minutes prior to alemtuzumab
cetirizine	10 mg	Orally 30 minutes prior to alemtuzumab
dexamethasone	12 mg	IV in normal saline 50 mL over 15 minutes
Wait 30 minutes after completion of IV pre-medication(s) before starting alemtuzumab		
alemtuzumab	30 mg	IV in normal saline 100 mL over 2 hours
meperidine	25 to 50 mg	IV push over 5 minutes if needed for the treatment of rigors
Week 2		
Three times per week (usually Monday, Wednesday and Friday)		
acetaminophen	975 mg	Orally 30 minutes prior to alemtuzumab
cetirizine	10 mg	Orally 30 minutes prior to alemtuzumab
dexamethasone	12 mg	IV in normal saline 50 mL over 15 minutes
Wait 30 minutes after completion of IV pre-medication(s) before starting alemtuzumab		
alemtuzumab	30 mg	IV in normal saline 100 mL over 2 hours
meperidine	25 to 50 mg	IV push over 5 minutes if needed for the treatment of rigors
Weeks 3 to 13		
Three times per week (usually Mondays, Wednesdays and Fridays)		
acetaminophen	975 mg	Orally 30 minutes prior to alemtuzumab
cetirizine	10 mg	Orally 30 minutes prior to alemtuzumab
dexamethasone	4 mg	IV in normal saline 50 mL over 15 minutes
Wait 30 minutes after completion of IV pre-medication(s) before starting alemtuzumab		
alemtuzumab	30 mg	IV in normal saline 100 mL over 2 hours
meperidine	25 to 50 mg	IV push over 5 minutes if needed for the treatment of rigors

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

REQUIRED MONITORING

Hepatitis B serology

- Hepatitis B surface antigen and Hepatitis B core antibody (drawn within preceding 5 years)

Weekly (Monday of each week)

- CBC, serum creatinine, urea, electrolytes and liver enzymes as per Physician Orders
- CMV via PCR as per Physician Orders

alemtuzumab monitoring

- Full vital signs (temperature, heart rate, respiratory rate, blood pressure and O_2 saturation) at baseline and as clinically indicated
- Weeks 1 and 2: Observe patient for 1 hour after infusion. Full vital signs prior to discharge
- Weeks 3 to 13: No observation period required. Patient can be discharged from treatment room if stable whether they had a reaction or not

Recommended Support Medications

Drug	Dose	CCMB Administration Guideline
valACYclovir	500 mg	Orally once daily
sulfamethoxazole-trimethoprim	800/160 mg	Orally twice daily on Saturdays and Sundays only
metoclopramide	10 – 20 mg	Orally every 4 hours as needed for nausea and vomiting

DISCHARGE INSTRUCTIONS

- Patient should be instructed to contact their cancer team immediately if symptoms of hypersensitivity reactions occur after discharge
- Instruct patient to continue taking anti-emetic(s) and support medications at home

ADDITIONAL INFORMATION

- Administering nurse must document any infusion-related reactions with any dose of alemtuzumab
- Patients on alemtuzumab should receive irradiated blood products
- Due to the risk of reactivation of Hepatitis B virus (HBV) while on this treatment regimen, prescriber must adhere to CCMB Policy ***Hepatitis B Monitoring for Oncology and Hematology Patients*** for ordering and interpreting HBV serology and prescribing antiviral prophylaxis
- valACYclovir (shingles prophylaxis) and sulfamethoxazole-trimethoprim (*Pneumocytis jirovecii* pneumonia prophylaxis) continue while on treatment and for 6 months after discontinuation of treatment due to risk of prolonged immunosuppression
- On Week 1, treatment can be started on any day of the week. Maximum alemtuzumab dose is 90 mg over a 7-day period
- Administration site restrictions are in place for alemtuzumab. alemtuzumab must be administered at CCMB MacCharles or Tache in Winnipeg