Regimen Reference Order – LEUK – ALC6 (Interim Maintenance)

ARIA: LEUK – [ALC6 (Interim Maintenance)]

Planned Course: Single cycle (1 Cycle = 49 days)
Indication for Use: Newly Diagnosed Precursor B-Cell Acute Lymphoblastic Leukemia

CVAD: Preferred (VESICANT INVOLVED)

Proceed with treatment if:

Day 1

- ***ANC equal to or greater than 0.75 x 10^9/L AND Platelets equal to or greater than 75 x 10^9/L***

Days 11, 21, 31 and 41

- ***ANC equal to or greater than 0.5 x 10^9/L AND Platelets equal to or greater than 50 x 10^9/L***
  - ❖ **Contact Leukemia/BMT (L/BMT) Physician if parameters not met**

SEQUENCE OF MEDICATION ADMINISTRATION

Pre-treatment Requirements

Drug	Dose	CCMB Administration Guideline
Not Applicable		

Treatment Regimen – LEUK – ALC6 (Interim Maintenance)

Establish primary solution 500 mL of: normal saline

Drug	Dose	CCMB Administration Guideline
Day 1		
ondansetron	16 mg	Orally 30 minutes pre-chemotherapy
vinCRIStine	1.5 mg/m^2; maximum dose 2 mg	IV in normal saline 25 mL over 2 to 3 minutes by gravity infusion *Concentration dependent drug: Pharmacy will adjust diluent volume to ensure drug stability*
methotrexate	100 mg/m^2	IV in normal saline 250 mL over 1 hour **Nursing Alert: patient will be instructed to hold sulfamethoxazole-trimethoprim on days when methotrexate is administered* *Concentration dependent drug: Pharmacy will adjust diluent volume to ensure drug stability*
Day 2		
acetaminophen	650 mg	Orally **1 hour** prior to pegaspargase

hydrocortisone	100 mg	IV in normal saline 50 mL over 15 minutes **45 minutes** prior to pegaspargase **Nursing Alert: pegaspargase starts **45 minutes after completion** of hydrocortisone*
diphenhydrAMINE	50 mg	IV in normal saline 50 mL over 15 minutes
Wait 30 minutes after completion of IV pre-medications before starting pegaspargase		
pegaspargase	2000 units/m^2; maximum dose 3750 units	IV in normal saline 100 mL over 1 hour
Days 11 and 21		
ondansetron	16 mg	Orally 30 minutes pre-chemotherapy
vinCRIStine	1.5 mg/m^2; maximum dose 2 mg	IV in normal saline 25 mL over 2 to 3 minutes by gravity infusion *Concentration dependent drug: Pharmacy will adjust diluent volume to ensure drug stability*
methotrexate	Dose is determined based on blood work results (see Capizzi methotrexate table on page 3)	IV in normal saline 250 mL over 1 hour **Nursing Alert: patient will be instructed to hold sulfamethoxazole-trimethoprim on days when methotrexate is administered* *Concentration dependent drug: Pharmacy will adjust diluent volume to ensure drug stability*
Day 22		
acetaminophen	650 mg	Orally **1 hour** prior to pegaspargase
hydrocortisone	100 mg	IV in normal saline 50 mL over 15 minutes **45 minutes** prior to pegaspargase **Nursing Alert: pegaspargase starts **45 minutes after completion** of hydrocortisone*
diphenhydrAMINE	50 mg	IV in normal saline 50 mL over 15 minutes
Wait 30 minutes after completion of IV pre-medications before starting pegaspargase		
pegaspargase	2000 units/m^2; maximum dose 3750 units	IV in normal saline 100 mL over 1 hour
Days 31 and 41		
ondansetron	16 mg	Orally 30 minutes pre-chemotherapy
vinCRIStine	1.5 mg/m^2; maximum dose 2 mg	IV in normal saline 25 mL over 2 to 3 minutes by gravity infusion *Concentration dependent drug: Pharmacy will adjust diluent volume to ensure drug stability*

methotrexate	Dose is determined based on blood work results (see Capizzi methotrexate table on page 3)	IV in normal saline 250 mL over 1 hour **Nursing Alert: patient will be instructed to hold sulfamethoxazole-trimethoprim on days when methotrexate is administered* *Concentration dependent drug: Pharmacy will adjust diluent volume to ensure drug stability*
Patients will receive methotrexate Intrathecal Therapy with this regimen **(See *Appendix A* – Intrathecal Therapy (IT))**		

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

Capizzi methotrexate Dose Escalations on Days 11, 21, 31 and 41

CBC Parameters	Action*
If ANC greater than 0.75 x 10^9/L and platelets greater than 75 x 10^9/L	Escalate methotrexate dose by 50 mg/m^2 from the previous dose (maximum dose 200 mg/m^2)
If ANC less than 0.5 x 10^9/L or platelets less than 50 x 10^9/L	Hold all chemotherapy on the day that methotrexate is due and repeat blood work in 4 days a) If ANC recovers to greater than or equal to 0.5 x 10^9/L and platelets greater than or equal to 50 x 10^9/L, give the same dose of methotrexate as previously given b) If ANC is still less than 0.5 x 10^9/L or platelets still less than 50 x 10^9/L, give vinCRIStine only and repeat blood work in 7 days to begin the next dose of methotrexate. Do not make up missed dose of methotrexate. Give pegaspargase on schedule
If ANC less than 0.75 x 10^9/L or platelets less than 75 x 10^9/L for more than 7 days after IV methotrexate administration	Discontinue sulfamethoxazole-trimethoprim temporarily If toxicity for more than 7 days recurs after the next dose, once hematologic toxicity resolves (ANC greater than 0.75 x 10^9/L and platelets greater than 75 x 10^9/L), then IV methotrexate should be given at 75% of the previous dose If neutropenia does not recur after 2 doses of IV methotrexate at the reduced dose, attempt to resume therapy at previous higher IV methotrexate dose
***methotrexate dose is calculated by the Leukemia/BMT clinic**	

REQUIRED MONITORING

Days 1, 11, 21 and 31

- CBC and biochemistry as per Physician Orders
- Glucose and lipase as per Physician Orders

Days 2 and 22

- Fibrinogen as per Physician Orders
- Full vital signs (temperature, heart rate, respiratory rate, blood pressure and O_2 saturation) at baseline and during pegaspargase administration
- Observe patient for 1 hour after administration of pegaspargase

Day 41

- CBC and biochemistry as per Physician Orders

Recommended Support Medications

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

DISCHARGE INSTRUCTIONS

- Patients 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) at home
- Remind patient to take valACYclovir (shingles prophylaxis) and sulfamethoxazole-trimethoprim (*Pneumocystis jirovecii* pneumonia prophylaxis) at home
- Instruct patient to hold sulfamethoxazole-trimethoprim on days when IT or IV methotrexate is administered
- Reinforce safe handling precautions of medications, blood and body fluids for 48 hours after completion of chemotherapy

ADDITIONAL INFORMATION

- Physician or designate must be on site in case of reactions to pegaspargase
  - Do not administer on weekends or holidays
- pegaspargase can cause anaphylaxis. diphenhydrAMINE, hydrocortisone and EPINEPHrine must be available in case of reaction
- pegaspargase can cause serious side effects such as hemorrhage, pancreatitis and thrombotic events
- Intrathecal therapy is part of this regimen to start on Day 1 of ALC6 (Interim Maintenance). See *Appendix A* regarding dosing for the support regimen LEUK - [ALC6(Int Maint) IT]
- sulfamethoxazole-trimethoprim should not be administered on days when intrathecal or intravenous methotrexate is administered due to potential drug interaction
- vinCRIStine should be given 12 to 24 hours before pegaspargase to minimize toxicity

Appendix A

Intrathecal Therapy (IT) – LEUK – [ALC6(Int Maint) IT]

Proceed with treatment if:

- ***Platelets equal to or greater than 50 x 10^9/L***

Days 1 and 31

Drug	Dose	CCMB Administration Guideline
methotrexate	15 mg	Intrathecal in 6 mL preservative free normal saline administered in L/BMT Clinic

IT is ordered as a separate support regimen to start on Day 1 of ALC6 (Interim Maintenance)