Regimen Reference Order – LEUK – AL4 (CNS Phase)

ARIA: LEUK - [AL4 (CNS Phase)]

Planned Course: Single phase (1 cycle = 21 days)
Indication for Use: Acute Lymphoblastic Leukemia

CVAD: Preferred (VESICANT INVOLVED)

Proceed with treatment if:

Day 1

- ***ANC equal to or greater than 1 x 10^9/L AND Platelets equal to or greater than 100 x 10^9/L***
- ***AST less than 8 times the upper limit of normal***
- ***Direct bilirubin less than 25 µmol/L***

Proceed with mercaptopurine if:

Days 1 to 14

- ***ANC equal to or greater than 0.5 x 10^9/L AND Platelets equal to or greater than 50 x 10^9/L***
- ***AST less than 8 times the upper limit of normal***
- ***Direct bilirubin equal or less than 25 µmol/L***
- ***No or mild mucositis***
  - ❖ **Contact Leukemia/BMT (L/BMT) 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
Not Applicable		

Treatment Regimen – LEUK – AL4 (CNS Phase)

Establish primary solution 500 mL of: normal saline

Drug	Dose	CCMB Administration Guideline
ondansetron	16 mg	Orally 30 minutes pre-chemotherapy on **Day 1**
dexamethasone	18 mg/m^2/day (round to nearest 2 mg)	Orally divided twice a day on **Days 1 to 5** **(Self-administered at home)**
vinCRIStine	2 mg (standard dose)	IV in normal saline 25 mL over 2 to 3 minutes by gravity infusion on **Day 1**
DOXOrubicin	30 mg/m^2	IV Push over 10 to 15 minutes on **Day 1**

mercaptopurine	50 mg/m^2 (round to nearest 25 mg)	Orally once daily on an empty stomach **on Days 1 to 14** Do not take with milk or milk-based products **(Self-administered at home)**
iMAtinib	600 mg	***ONLY*** *to be prescribed if patient has Philidelphia Chromosome positive disease* Orally once daily with food **(Self-administered at home)**
Patients will receive Triple Intrathecal Therapy on **Days 1, 4, 8 and 11** (**See APPENDIX A – AL4 (CNS Phase) Intrathecal Therapy (IT)**)		
mercaptopurine (PURINETHOL®) available dosage strength: 50 mg tablets **Classification: Cytotoxic, Hazardous** **iMAtinib (GLEEVEC®) available dosage strength: 100 mg, 400 mg tablets** **Classification: Cytotoxic, Hazardous**		

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)

CNS Phase

Day 1

- CBC and biochemistry as per Physician Orders

Days 4, 8 and 11

- CBC as per Physician Orders

Recommended Support Medications

Drug	Dose	CCMB Administration Guideline
sulfamethoxazole-trimethoprim DS	800/160mg	Orally twice daily on Saturdays and Sundays only

DISCHARGE INSTRUCTIONS

- If nausea or mucositis develops, instruct patient to contact their L/BMT physician
- sulfamethoxazole-trimethoprim should not be administered on intrathecal therapy days due to potential drug interaction
- mercaptopurine should not be taken at the same time as milk or milk-based products. Cow's milk in particular, contains high concentrations of xanthine oxidase which inactivates mercaptopurine
- Reinforce safe handling precautions of medications, blood and body fluids for 48 hours after completion of chemotherapy

ADDITIONAL INFORMATION

- 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
- This regimen is given with concurrent cranial radiation
- Intrathecal therapy is part of this regimen to start Day 1 of AL4 (CNS Phase). See APPENDIX A AL4 (CNS Phase) Intrathecal Therapy
- iMAtinib is to be prescribed for patients with Philidelphia Chromosome positive disease. iMAtinib continues daily throughout AL4 protocol (all phases)
- bisphosphonate therapy (zoledronic acid) is recommended during AL4 protocol
- Administration site restrictions are in place for AL4 protocol. Protocol must be administered at CCMB MacCharles in Winnipeg

APPENDIX A

AL4 (CNS Phase) Intrathecal Therapy (IT)

Planned course: Days 1, 4, 8 and 11 of AL4 (CNS Phase)

Proceed with treatment if:

- ***ANC equal to or greater than 0.5 x 10^9/L AND Platelets equal to or greater than 50 x 10^9/L***
- ***AST less than 8 times upper limit of normal***
- ***Direct bilirubin equal or less than 25 µmol/L***
- ***No or mild mucositis***
  - ❖ **Contact L/BMT Physician if parameters not met**

Drug and Dose	CCMB Administration Guideline
Days 1, 4, 8 and 11	
Triple Intrathecal: methotrexate 12 mg cytarabine 40 mg hydrocortisone 50 mg	Intrathecal in 6 mL preservative free normal saline administered in L/BMT Clinic

IT is ordered as a separate cyclical Support regimen (1 cycle= 21 days) to start Day 1 of AL4 (CNS Phase)

General Instructions:

- Contact L/BMT physician for guidance on dose modifications if blood parameters are not met or moderate or severe mucositis