

## 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  $1 \times 10^9/L$  AND Platelets equal to or greater than  $100 \times 10^9/L$
- AST less than 8 times the upper limit of normal
- Direct bilirubin less than  $25 \mu\text{mol/L}$

### Proceed with mercaptopurine if:

#### Days 1 to 14

- ANC equal to or greater than  $0.5 \times 10^9/L$  AND Platelets equal to or greater than  $50 \times 10^9/L$
- AST less than 8 times the upper limit of normal
- Direct bilirubin equal or less than  $25 \mu\text{mol/L}$
- No or mild mucositis
- ❖ 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 – 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 <b>Day 1</b>
dexamethasone	18 mg/m <sup>2</sup> /day (Round to nearest 2 mg)	Orally divided twice a day on <b>Days 1 to 5</b> <b>(Self-administered at home)</b>
vinCRiStine	2 mg (standard dose)	IV in normal saline 25 mL over 2 minutes on <b>Day 1</b>
DOXOrubicin	30 mg/m <sup>2</sup>	IV Push over 10 to 15 minutes on <b>Day 1</b>
mercaptopurine	50 mg/m <sup>2</sup> (Round to nearest 25 mg)	Orally once daily on an empty stomach on <b>Days 1 to 14</b> Do not take with milk or milk-based products <b>(Self-administered at home)</b>

iMAtinib	600 mg	<b><i>ONLY</i></b> to be prescribed if patient has Philadelphia Chromosome positive disease Orally once daily with food <b>(Self-administered at home)</b>
Patients will receive Triple Intrathecal Therapy on <b>Days 1, 4, 8 and 11</b> (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

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

- 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 Philadelphia Chromosome positive disease. iMAtinib continues daily throughout AL4 protocol (all phases)
- This regimen is given with concurrent cranial radiation
- 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  $0.5 \times 10^9/L$  AND Platelets equal to or greater than  $50 \times 10^9/L$*
- *AST less than 8 times upper limit of normal*
- *Direct bilirubin equal or less than  $25 \mu\text{mol/L}$*
- *No or mild mucositis*
  - ❖ **Contact L/BMT Physician if parameters not met**

Drug and Dose	CCMB Administration Guideline
<b>Days 1, 4, 8 and 11</b>	
<b><u>Triple Intrathecal:</u></b> methotrexate 12 mg cytarabine 40 mg hydrocortisone 50 mg	Intrathecal in 6 mL preservative free normal saline administered in L/BMT Clinic
<b>IT is ordered as a separate cyclical Support regimen (1 cycle= 21 days) to start Day 1 of AL4 (CNS Phase)</b>	
General Instructions:	
<ul style="list-style-type: none"> <li>• Contact L/BMT physician for guidance on dose modifications if blood parameters are not met or moderate or severe mucositis</li> </ul>	