

## Regimen Reference Order – LYMP – ICE

ARIA: LYMP – [ICE]

Planned Course: Every 21 days for a maximum of 6 cycles

Indication for Use: Relapsed/Refractory Lymphoma

CVAD: At Provider's Discretion

**Proceed with treatment if:**

**ANC equal to or greater than  $1 \times 10^9/L$  AND Platelets equal to or greater than  $75 \times 10^9/L$**

❖ Contact Hematologist if parameters not met

### 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 and at provider's discretion for subsequent cycles  *Only patients at risk of tumor lysis syndrome will be prescribed allopurinol

#### Treatment Regimen – LYMP – ICE

Establish primary solution 500 mL of: normal saline			
Drug	Hours of Administration	Dose	CCMB Administration Guideline
<b>Day 1</b>			
normal saline	minus 1 hour and 15 minutes	500 mL	IV over 1 hour (Pre hydration)
dexamethasone	minus 30 minutes	12 mg	Orally 30 minutes pre-chemotherapy
ondansetron	minus 30 minutes	16 mg	Orally 30 minutes pre-chemotherapy
mesna	minus 15 minutes	$333 \text{ mg/m}^2$	IV in normal saline 50 mL over 15 minutes Immediately prior to ifosfamide
ifosfamide	Hour 0	$1667 \text{ mg/m}^2$	IV in normal saline 250 mL over 1 hour
CARBOplatin	Hour 1	AUC 5 mg/mL.min	IV in normal saline 250 mL over 1 hour

etoposide	Hour 2	100 mg/m <sup>2</sup>	IV in normal saline 500 mL over 1 hour <i>Use non-DEHP bags and non-DEHP administration sets</i>  <i>Concentration dependent drug. Pharmacy will adjust diluent volume to ensure drug stability</i>  <i>*Nursing Alert: pump programming should reflect actual volume in the bag</i>
normal saline	Hour 3	500 mL	IV over 1 hour (Post hydration)
mesna	Hour 4	333 mg/m <sup>2</sup>	IV in normal saline 50 mL over 15 minutes
mesna	Hour 6	666 mg/m <sup>2</sup>	Orally ( <b>self-administered at home</b> ) Take with juice or soft drink <b>(Nurse to inform patient time to take dose)</b>
<b>Days 2 and 3</b>			
normal saline	minus 1 hour and 15 minutes	500 mL	IV over 1 hour (Pre hydration)
dexamethasone	minus 30 minutes	12 mg	Orally 30 minutes pre-chemotherapy
ondansetron	minus 30 minutes	16 mg	Orally 30 minutes pre-chemotherapy
mesna	minus 15 minutes	333 mg/m <sup>2</sup>	IV in normal saline 50 mL over 15 minutes Immediately prior to ifosfamide
ifosfamide	Hour 0	1667 mg/m <sup>2</sup>	IV in normal saline 250 mL over 1 hour
etoposide	Hour 1	100 mg/m <sup>2</sup>	IV in normal saline 500 mL over 1 hour <i>Use non-DEHP bags and non-DEHP administration sets</i>  <i>Concentration dependent drug. Pharmacy will adjust diluent volume to ensure drug stability</i>  <i>*Nursing Alert: pump programming should reflect actual volume in the bag</i>
normal saline	Hour 2	500 mL	IV over 2 hours (Post hydration)
mesna	Hour 4	333 mg/m <sup>2</sup>	IV in normal saline 50 mL over 15 minutes
mesna	Hour 6	666 mg/m <sup>2</sup>	Orally ( <b>self-administered at home</b> ) Take with juice or soft drink <b>(Nurse to inform patient time to take dose)</b>

Flush after each medication:

- 50 mL over 6 minutes (500 mL/hr)

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

## REQUIRED MONITORING

### Prior to Day 1

- CBC, serum creatinine, urea, AST, ALT, total bilirubin, uric acid, sodium, potassium, calcium, albumin, magnesium, phosphate as per physician order

### On Day 12 (or next working day if Day 12 is on a weekend or holiday)

- CBC, to assess whether further filgrastim doses are required. Contact hematologist if ANC is less than  $0.5 \times 10^9/L$

### Recommended Support Medications

Drug	Dose	CCMB Administration Guideline
dexamethasone	4 mg	Orally twice daily on Days 4 and 5
Grastofil®	5 mcg/kg (rounded to nearest 300 mcg or 480 mcg)	Subcutaneously once daily for 7 days to start on Day 5 If nadir ANC is less than $0.5 \times 10^9/L$ consider 2 to 3 additional doses
metoclopramide	10 – 20 mg	Orally every 4 – 6 hours as needed for nausea and vomiting

## DISCHARGE INSTRUCTIONS

- Instruct patient to:
  - Continue taking anti-emetic(s) at home
  - Ifosfamide can rarely cause encephalopathy; report changes in mental status
  - Maintain oral intake of 2000 mL (8 glasses) of fluid daily at home
  - Empty bladder every 2 hours while awake and at bedtime for 24 hours
  - Obtain immediate assistance as per your clinic's contact instructions if:
    - Signs of hemorrhagic cystitis
    - Unable to drink recommended amount of fluid
  - Self-administer "Hour 6" of mesna by mixing the contents of the mesna syringe in juice or soft drink (not grapefruit)
  - If patient vomits hour "6" mesna within 2 hours of taking, then the patient should be advised to contact their cancer team. Patient may require intravenous hydration
- Reinforce applicable safe handling precautions of medications, blood and body fluids for 48 hours after completion of chemotherapy

## ADDITIONAL INFORMATION

**CARBOplatin Dosing Calculations**  
**Calculation of carboplatin dose: (max. 400mg/m<sup>2</sup>)**

Dose (mg)\*\*\* = target AUC (GFR + 25)

$$GFR = N \times (140 - \text{age in years}) \times \text{IBW(kg)} = \frac{\text{_____ mL/min}}{\text{serum creatinine in } \mu\text{mol/L}^{***}}$$

AUC (mg/mL.min) <hr style="width: 50%; margin: 0 auto;"/> 5	X	GFR + 25 (mL/min) <hr style="width: 50%; margin: 0 auto;"/> _____ + 25	=	Total Dose (mg) <hr style="width: 50%; margin: 0 auto;"/>
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### Use measured creatinine clearance if available instead of calculated GFR

#### Ideal Body Weight (IBW) kg

Female =  $45.5 \text{ kg} + [(\text{Ht in cm} - 152 \text{ cm}) \times 0.91]$

Female = N = 1.04

Male =  $50 \text{ kg} + [(\text{Ht in cm} - 152 \text{ cm}) \times 0.91]$

Male = N = 1.23

*The estimated creatinine clearance is based on limited evidence. Sound clinical judgment and interpretation of the estimation are required, because the equations above may not be appropriate for some patient populations (for example, acute renal failure).*