

Regimen Reference Order – THOR – PEMEtrexed + CARBOplatin

ARIA: LUNG – [PEMEtrexed + CARBOplatin]

Planned Course: Every 21 days for 4 to 6 cycles
Indication for Use: Non-Small Cell Lung Cancer Metastatic (First line) OR
 Malignant Pleural Mesothelioma

CVAD: At Provider's Discretion

Proceed with treatment if:

ANC equal to or greater than $1.5 \times 10^9/L$ AND Platelets equal to or greater than $100 \times 10^9/L$

❖ **Contact Physician if parameters not met**

SEQUENCE OF MEDICATION ADMINISTRATION

Pre-treatment Requirements

Drug	Dose	CCMB Administration Guideline
folic acid	1 mg	Orally daily beginning 7 – 14 days prior to first dose of PEMEtrexed and continuing daily until 21 days after the last dose of PEMEtrexed (Self-administered at home)
Vitamin B ₁₂	1000 mcg	Intramuscularly 7 – 14 days prior to first dose of PEMEtrexed and continuing every 9 weeks until 21 days after last dose of PEMEtrexed
dexamethasone	4 mg	Orally twice daily the day before, day of and the day after each dose of PEMEtrexed (Higher or additional doses are permitted) (Self-administered at home)

Treatment Regimen – THOR - PEMEtrexed + CARBOplatin

Establish primary solution 500 mL of: normal saline		
Drug	Dose	CCMB Administration Guideline
ondansetron	16 mg	Orally 30 minutes pre-chemotherapy
dexamethasone	12 mg	Orally 30 minutes pre-chemotherapy
PEMEtrexed	500 mg/m^2	IV in normal saline 100 mL over 10 minutes Administer 30 minutes prior to CARBOplatin
CARBOplatin	AUC 5 mg/mL.min	IV in normal saline 250 mL over 1 hour

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

All Cycles

- CBC, biochemistry (including renal function test) as per physician order

Recommended Support Medications

Drug	Dose	CCMB Administration Guideline
ondansetron	8 mg	Orally once 12 hours after chemotherapy
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
- 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/m²)

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

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

AUC (mg/mL.min) <hr style="width: 80%; margin: 0 auto;"/> 5	X	GFR + 25 (mL/min) <hr style="width: 80%; margin: 0 auto;"/> ____ + 25	=	Total Dose (mg) <hr style="width: 80%; margin: 0 auto;"/>
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Ideal Body Weight (IBW) kg
 Female = 45.5 kg + [(Ht in cm - 152 cm) x 0.91]
 Female = N = 1.04
 Male = 50 kg + [(Ht in cm - 152 cm) x 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).