

Regimen Reference Order

MYEL – carfilzomib + lenalidomide + dexamethasone

ARIA: MYEL – [carfilzomib + lenalidomide + dex]

Planned Course: carfilzomib, lenalidomide and dexamethasone for 18 cycles, followed by lenalidomide and dexamethasone until disease progression or unacceptable toxicity (1 cycle = 28 days)

Indication for Use: Multiple Myeloma

CVAD: At Provider’s Discretion

Proceed with treatment if:

Cycles 1 to 18

Day 1

- ANC equal to or greater than $1 \times 10^9/L$ AND Platelets equal to or greater than $30 \times 10^9/L$
- Proceed with carfilzomib only when lenalidomide starts

Day 15

carfilzomib:

- ANC equal to or greater than $0.5 \times 10^9/L$ AND Platelets equal to or greater than $30 \times 10^9/L$

lenalidomide:

- ANC equal to or greater than $1 \times 10^9/L$ AND Platelets equal to or greater than $30 \times 10^9/L$

Cycles 19 and onwards

Day 1 only

- ANC equal to or greater than $1 \times 10^9/L$ AND Platelets equal to or greater than $30 \times 10^9/L$
- ❖ Contact Hematologist if parameters not met

SEQUENCE OF MEDICATION ADMINISTRATION

Pre-treatment Requirements		
Drug	Dose	CCMB Administration Guideline
Instruct patient to start vigorous oral pre-hydration of 6 to 8 cups of liquid per day starting at least 48 hours before Cycle 1 only		
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 (Self-administered at home) * Only patients at risk of tumor lysis syndrome will be prescribed allopurinol
ciprofloxacin	500 mg	Orally once daily starting the day prior to Cycle 1 <u>only</u> (Self-administered at home)

Treatment Regimen – MYEL – carfilzomib + lenalidomide + dexamethasone

Establish primary solution 500 mL of: normal saline

Drug	Dose	CCMB Administration Guideline
Cycle 1		
dexamethasone	40 mg	Orally once daily with food on Days 1, 8, 15 and 22 (Self-administered at home) <i>*Alert:</i> On days of carfilzomib administration, dexamethasone should be taken between <u>30 minutes to 4 hours</u> prior to carfilzomib
normal saline	500 mL	IV over 1 hour prior to carfilzomib (Pre hydration)
carfilzomib	20 mg/m ²	IV in D5W 100 mL over 30 minutes on Day 1
	70 mg/m ²	IV in D5W 100 mL over 30 minutes on Days 8 and 15
normal saline	500 mL	Infused over the 1-hour observation period (Post hydration)
lenalidomide	25 mg	Orally once daily with or without food on Days 1 to 21, then 7 days off Swallow whole (Self-administered at home)
Cycles 2 to 12		
dexamethasone	40 mg	Orally once daily with food on Days 1, 8, 15 and 22 (Self-administered at home) <i>*Alert:</i> On days of carfilzomib administration, dexamethasone should be taken between <u>30 minutes to 4 hours</u> prior to carfilzomib
carfilzomib	70 mg/m ²	IV in D5W 100 mL over 30 minutes on Days 1, 8 and 15
lenalidomide	25 mg	Orally once daily with or without food on Days 1 to 21, then 7 days off Swallow whole (Self-administered at home)
Cycles 13 to 18		
dexamethasone	40 mg	Orally once daily with food on Days 1, 8, 15 and 22 (Self-administered at home) <i>*Alert:</i> On days of carfilzomib administration, dexamethasone should be taken between <u>30 minutes to 4 hours</u> prior to carfilzomib
carfilzomib	70 mg/m ²	IV in D5W 100 mL over 30 minutes on Days 1 and 15
lenalidomide	25 mg	Orally once daily with or without food on Days 1 to 21, then 7 days off Swallow whole (Self-administered at home)

Cycle 19 onwards		
dexamethasone	40 mg	Orally once daily with food on Days 1, 8, 15 and 22 (Self-administered at home)
lenalidomide	25 mg	Orally once daily with or without food on Days 1 to 21, then 7 days off Swallow whole (Self-administered at home)
lenalidomide (Revlimid®) available dosage strengths: 5 mg, 10 mg, 15 mg, 20 mg and 25 mg capsules Classification: Cytotoxic, Hazardous		
carfilzomib doses will be automatically rounded to the DSG Approved Dose Bands. See LYMP DSG – Dose Banding document for more information		

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

REQUIRED MONITORING

Cycle 1 only

- Observe patient 1 hour post carfilzomib administration for Cycle 1 only (during Post hydration)
- Patient should be assessed for signs and symptoms of fluid overload prior to each carfilzomib dose

Cycles 1 to 18

Day 1

- CBC, reticulocyte count and biochemistry as per Physician Orders
- Serum Protein Electrophoresis (SPEP)/Free Light Chain Ratio (FLCH) (response assessment)

Day 15

- CBC, reticulocyte count and biochemistry as per Physician Orders

Cycle 19 and onwards

- CBC, reticulocyte count and biochemistry as per Physician Orders
- SPEP/FLCH

Per RevAid Program or Reddy2Assist Program– See Additional Information

- Patients of childbearing potential require β HCG according to RevAid Program/Reddy2Assist Program requirements

Recommended Support Medications

Drug	Dose	CCMB Administration Guideline
acetylsalicylic acid (ASA) enteric coated	81 mg delayed release	Orally once daily
valACYclovir	500 mg	Orally once daily

DISCHARGE INSTRUCTIONS

- Reinforce oral hydration of 6 to 8 cups of liquid per day
- Patients should be instructed to inform their cancer team of shortness of breath or signs and symptoms of fluid overload
- Remind patient to take lenalidomide and dexamethasone at home
- Remind patient to take valACYclovir (shingles prophylaxis) and ASA (antiplatelet) at home
- Reinforce applicable safe handling precautions of medications, blood and body fluids for 48 hours after completion of chemotherapy

ADDITIONAL INFORMATION

- carfilzomib has been associated with cardiotoxicity
- valACYclovir (shingles prophylaxis) continues during and for 4 weeks after completion of carfilzomib due to immunosuppression
- Patients should take therapy to prevent blood clots while on lenalidomide. The majority of patients will be prescribed acetylsalicylic acid (ASA) enteric coated 81 mg once daily. Patients at high risk may be prescribed other anticoagulants instead of acetylsalicylic acid
- All patients should be considered for bisphosphonate therapy
- lenalidomide is teratogenic
- Patients of childbearing potential will require monthly pregnancy tests (βHCG) that must be done within 7 days of the next prescription fill
- Effective November 25th, 2021, all **new patients** starting on lenalidomide will be enrolled in Reddy2Assist Program and lenalidomide will be dispensed by CCMB Pharmacy. lenalidomide can only be given to patients who are registered and meet all conditions of Reddy2Assist Program
- Existing patients on lenalidomide (started prior to November 25th, 2021) are currently enrolled in RevAid Program and will continue to have their lenalidomide prescriptions dispensed by the RevAid Registered Pharmacy