

BC Cancer Protocol Summary for Treatment of Mantle Cell Lymphoma with DOXOrubicin, Cyclophosphamide, vinCRiStine, predniSONE and riTUXimab (LYCHOPR) Alternating with Dexamethasone, Cytarabine, Platinum and riTUXimab (LYDHAPR)

Protocol Code

LYMCALT

Tumour Group

Lymphoma

Contact Physician

LY Systemic Therapy

ELIGIBILITY:

Patients must have:

- Newly diagnosed and previously untreated mantle cell lymphoma
- Eligible for autologous stem cell transplant
- At least one high risk feature, including but not limited to:
 - TP53 protein overexpression
 - TP53 gene mutations
 - Ki-67 index greater than or equal to 30%
 - Blastoid/pleomorphic morphology
 - Intermediate or high risk MIPI score
 - Any other high risk clinicopathologic features according to physician discretion

Note:

- Treatment should be initiated and performed under the direction of clinicians with expertise in the management of mantle cell lymphoma and toxicities associated with this therapy
- This protocol is given as alternating [LYCHOPR](#) and [LYDHAPR](#) cycles. Use corresponding preprinted order (PPO) for the applicable cycle to be administered.

Patients should have:

- ECOG Performance Status 0 to 2
- Adequate renal, cardiac, hepatic, and bone marrow function

EXCLUSIONS:

- Creatinine clearance (CrCl) less than 45 mL/min

CAUTION:

- Congestive cardiac failure requiring current treatment (treatment may be used but DOXOrubicin should be omitted, see Cardiotoxicity notes in [LYCHOPR](#) protocol)

TESTS:

- Baseline tests as per [LYCHOPR](#):
 - Required before first treatment: CBC & Diff, creatinine, total bilirubin, ALT
 - Required, but results do not have to be available to proceed with first treatment; results must be checked before proceeding with Cycle 2: HBsAg, HBsAb, HBcoreAb
 - If clinically indicated: alkaline phosphatase, sodium, potassium, magnesium, calcium
- Before each treatment: refer to the [LYCHOPR](#) and [LYDHAPR](#) protocols as applicable to the cycle being administered

PREMEDICATIONS:

- Refer to the [LYCHOPR](#) and [LYDHAPR](#) protocols as applicable to the cycle being administered
- Note: aprepitant is the NK₁ antagonist of choice for 3-day highly-emetogenic chemotherapy regimens (i.e. LYDHAPR). If NK₁ antagonist is required during LYCHOPR cycles, consider using aprepitant to maintain consistency across the entire treatment.

SUPPORTIVE MEDICATIONS:

- Very high risk of hepatitis B reactivation. If HBsAg or HBcoreAb positive, follow hepatitis B prophylaxis as per [SCHBV](#).
- Refer to the [LYCHOPR](#) and [LYDHAPR](#) protocols as applicable to the cycle being administered

TREATMENT:

- The treatment consists of 6 cycles of **alternating** [LYCHOPR](#) and [LYDHAPR](#) regimens every 21 days (3 cycles of LYCHOPR and 3 cycles of LYDHAPR):
 - **Cycles 1, 3 and 5:** administer [LYCHOPR](#)
 - **Cycles 2, 4 and 6:** administer [LYDHAPR](#)
- Discontinue if definite progression at any time.

| Cycle | 1 | 2 | 3 | 4 | 5 | 6 |
|---------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Regimen | LYCHOPR | LYDHAPR | LYCHOPR | LYDHAPR | LYCHOPR | LYDHAPR |

DOSE MODIFICATIONS:

- Refer to the [LYCHOPR](#) and [LYDHAPR](#) protocols as applicable to the cycle being administered

PRECAUTIONS:

- Refer to the [LYCHOPR](#) and [LYDHAPR](#) protocols as applicable to the cycle being administered

Contact the LY Systemic Therapy physician at your regional cancer centre or the LY Systemic Therapy Chair with any problems or questions regarding this treatment program.

References:

1. Hermine O, Hoster E, Walewski J, et al. European Mantle Cell Lymphoma Network. Addition of high-dose cytarabine to immunochemotherapy before autologous stem-cell transplantation in patients aged 65 years or younger with mantle cell lymphoma (MCL Younger): a randomised, open-label, phase 3 trial of the European Mantle Cell Lymphoma Network. *Lancet*. 2016 Aug 6;388(10044):565-75.
2. Hermine O, Jiang L, Walewski J, et al. European Mantle Cell Lymphoma Network. High-Dose Cytarabine and Autologous Stem-Cell Transplantation in Mantle Cell Lymphoma: Long-Term Follow-Up of the Randomized Mantle Cell Lymphoma Younger Trial of the European Mantle Cell Lymphoma Network. *J Clin Oncol*. 2023 Jan 20;41(3):479-484.
3. Villa D, Sehn LH, Savage KJ, et al. Bendamustine and rituximab as induction therapy in both transplant-eligible and -ineligible patients with mantle cell lymphoma. *Blood Adv*. 2020 Aug 11;4(15):3486-3494.