

BC Cancer Protocol Summary for Treatment of Hairy Cell Leukemia with Cladribine

Protocol Code: LYCDA

Tumour Group: Lymphoma

Contact Physician: Dr. Laurie Sehn

ELIGIBILITY:

- All patients with Hairy Cell Leukemia

TESTS:

- Baseline (required before first treatment): CBC & diff, platelets, creatinine, bilirubin, ALT
- Baseline (required, but results do not have to be available to proceed with first treatment; results must be checked before proceeding with further treatment): HBsAg, HBcoreAb

PREMEDICATIONS:

- None

SUPPORTIVE MEDICATIONS:

If HBsAg or HBcoreAb positive, start lamivudine 100 mg PO daily for the duration of chemotherapy and [continue for one year from treatment completion for patients who are HBsAg positive](#) and for six months for patients who are HBcoreAb positive.

TREATMENT:

Drug	Dose	BC Cancer Administration Guideline
cladribine	0.14 mg/kg/day	IV in 500 mL NS over 2 hours daily for 5 consecutive days
	OR	
	0.14 mg/kg/day	SC daily for 5 consecutive days*

Cladribine is usually given only once. There is no dose reduction for hematologic blood counts for this first cycle. If repeated, it should be given after recovery of blood counts to baseline following the dose reductions below.

*In Canada, cladribine is provided as 1 mg/mL concentration only. As a result, subcutaneous administration requires several syringes to be administered. Therefore, IV route may be preferred.

DOSE MODIFICATIONS:

1. Hematologic:

ANC (x 10 ⁹ /L)*		Platelets (x 10 ⁹ /L)*	Dose
less than 1.2	OR	less than 100	Delay until count recovery

2. **Renal Dysfunction:** For any patient with a serum creatinine above normal and for all patients above the age of 60 years, a creatinine clearance should be measured or calculated using the following formula:

Estimated creatinine clearance (in mL/minute) =

For men: $[1.23 \times (140 - \text{age in } y)(\text{weight in kg})] \div \text{serum creatinine in micromol/L}$

For women: $[1.04 \times (140 - \text{age in } y)(\text{weight in kg})] \div \text{serum creatinine in micromol/L}$

Creatinine Clearance (mL/min)	Actual Dose and Schedule (Note change in number of days)
greater than or equal to 70	0.14 mg/kg/day x 5 consecutive days
30 to less than 70	0.14 mg/kg/day x 3 consecutive days
less than 30	DO NOT USE

PRECAUTIONS:

1. **Neutropenia:** fever or other evidence of infection must be assessed promptly and treated aggressively.
2. **Hepatitis B Reactivation:** All lymphoma patients should be tested for both HBsAg and HBcoreAb. If either test is positive, such patients should be treated with lamivudine during chemotherapy **and continue for one year from treatment completion for patients who are HBsAg positive and for six months for patients who are HBcoreAb positive**. Such patients should also be monitored with frequent liver function tests and hepatitis B virus DNA at least every two months. If the hepatitis B virus DNA level rises during this monitoring, management should be reviewed with an appropriate specialist with experience managing hepatitis and consideration given to halting chemotherapy.
3. Severe neurotoxicity: has been reported with overdose, including irreversible neurologic toxicity, Guillain-Barré and Brown-Séquard syndromes.

Call Dr. Laurie Sehn or tumour group delegate at (604) 877-6000 or 1-800-663-3333 with any problems or questions regarding this treatment program.

References:

1. Cheson B. Purine analogues. J Clin Oncol 1992;10:352-5.
2. Piro LD, Carrera CJ, Carson DA and Beutler E. Lasting remissions in hairy cell leukemia induced by a single infusion of 2-chlorodeoxyadenosine. New Engl J Med 1990;322:1117-21.