

# BC Cancer Protocol Summary for Treatment of Low Grade Lymphoma or Chronic Lymphocytic Leukemia with Fludarabine

**Protocol Code**

LYFLU

**Tumour Group**

Lymphoma

**Contact Physician**

Dr. Laurie Sehn

## ELIGIBILITY:

- Symptomatic or threatening advanced stage indolent lymphoma (small lymphocytic lymphoma, lymphoplasmacytic lymphoma [formerly Waldenstrom's macroglobulinemia], marginal zone lymphoma or follicular lymphoma) or chronic lymphocytic leukemia

## TESTS:

- Baseline (required before first treatment): CBC & Diff, creatinine, [total](#) bilirubin, ALT
- Baseline (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
- Before each treatment: CBC & Diff, creatinine
- If clinically indicated: HBV viral load ALT (see protocol [SCHBV](#))

## PREMEDICATIONS:

- None

## SUPPORTIVE MEDICATIONS:

[High risk of hepatitis B reactivation](#). If HBsAg or HBcoreAb positive, [follow hepatitis B prophylaxis as per SCHBV](#).

## TREATMENT:

Drug	Dose	BC Cancer Administration Guideline
fludarabine	25 mg/m <sup>2</sup> /day x 5 consecutive working weekdays (may skip Sat/Sun/holidays)	IV in 100 mL NS over 30 minutes

OR

Drug	Dose	BC Cancer Administration Guideline
fludarabine	40 mg/m <sup>2</sup> /day x 5 consecutive days (round dose to nearest 10 mg)	PO  Do not chew, break or crush the tablets.

Repeat every 28 days until maximum clinical benefit achieved, usually 4-6 cycles, to a maximum of 8 cycles. For further cycles, undesignated approval is required.

## DOSE MODIFICATIONS:

### 1. Hematologic:

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

\*No dose reduction if decreased counts are due to disease.

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)	Dose	Actual Dose and Schedule (Note change in number of days)	
		PO	IV
greater than or equal to 70	100%	40 mg/m <sup>2</sup> /day x 5 days	25 mg/m <sup>2</sup> /day x 5 days
30 to less than 70	50%	32 mg/m <sup>2</sup> /day x <b>3 days</b>	20 mg/m <sup>2</sup> /day x <b>3 days</b>
less than 30	DO NOT USE		

#### PRECAUTIONS:

1. **Neutropenia:** fever or other evidence of infection must be assessed promptly and treated aggressively.
2. **Need for irradiated blood products:** potentially life-threatening transfusion-related graft-versus-host-disease has been described in patients actively receiving fludarabine. The Canadian Blood Service recommends that patients on fludarabine should receive irradiated blood products, effectively eliminating this risk.
3. **Hepatitis B.** The immunosuppression associated with fludarabine may increase the risk of re-activation of hepatitis B. Although the risk of this is probably small, fludarabine should be avoided in patients with known prior hepatitis B (HBsAg positive or anti-hepatitis B antibody positive) unless the clinical situation justifies this increased risk and this has been explained to the patient.
4. **Hepatitis B Reactivation:** [See SCHBV protocol for more details.](#)

**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, et al. Fludarabine. J Clin Oncol 1991;9:175-88.
2. Johnson S, et al. Multicentre prospective randomised trial of fludarabine versus cyclophosphamide, doxorubicin and prednisone (CAP) for treatment of advanced-stage chronic lymphocytic leukemia. Lancet 1996;347:1432-8.
3. Chin Yee, I et al. The role of fludarabine in intermediate- and high-risk chronic lymphocytic leukemia. Current Oncology 1999;6:90-102.
4. Boogaerts MA, et al. Activity of oral fludarabine phosphate in previously treated chronic lymphocytic leukemia. J Clin Oncol 2001; 22:4252-4258.