

## CHLORAMBUCIL +/- PREDNISOLONE

Chronic Lymphocytic Leukaemia (CLL)  
Low grade indolent lymphoma  
Waldenstroms macroglobulinaemia (WM)

**Please note:** This oral agent is being used for the above indications without curative intent, and has historically been used for many years without any proven optimal dosing or scheduling. Consequently, the schedules given below represent those routinely used in the Network but are not exclusive. Doses are routinely modified according to individual response, but doses greater than those listed below should be confirmed with a Consultant.

### Drugs/Dosage:

#### Schedule 1:

**Chlorambucil** 10mg po once daily Days 1 to 14  
+/-  
**Prednisolone** 40mg po once daily Days 1 to 14

If patient presents with cytopenia due to heavy marrow infiltration or autoimmune cytopenia, give prednisolone alone for first cycle.

For elderly patients or those with diabetes mellitus, chlorambucil alone may be considered.

For elderly/frail patients, a shorter duration of treatment may be considered (e.g. 7 – 10 days per cycle).

10 days of treatment per 28 day cycle may also be used as standard, according to local practice.

Given as 4 weekly cycle minimum – a longer cycle of up to 8 weeks may be used in elderly/frail patients. Continue until remission plus 2 cycles (usually 6 - 8 cycles)

Or:

#### Schedule 2:

**Chlorambucil** 10mg/m<sup>2</sup> po once daily Days 1 to 7 of 28 day cycle

If patient presents with cytopenia due to heavy marrow infiltration or autoimmune cytopenia, treat with prednisolone first before proceeding with chlorambucil.

Given as 4 weekly cycle minimum – a longer cycle of up to 8 weeks may be used in elderly/frail patients. Continue until remission plus 2 cycles (usually 6 - 8 cycles)

Or:

#### Schedule 3:

**Chlorambucil** 10 - 14mg po once daily continuously for up to 6 weeks until CR or toxicity<sup>1</sup>

If patient presents with cytopenia due to heavy marrow infiltration or autoimmune cytopenia, treat with prednisolone first before proceeding with chlorambucil.

Reason for Update: Prepared for Network use	Approved by Chair of Network TSSG: Dr A Laurie
Version: 1	Date: 6.3.06
Supersedes: All previous versions	Review date: March 2008
Prepared by Oncology Pharmacist: S Taylor	Checked by Network Pharmacist: Jacky Turner

Administration: Chlorambucil available as 2mg tablets, which need to be stored in the fridge.  
The daily dose may be divided to reduce incidence of nausea.  
Prednisolone tablets to be taken in the morning with or after food.

**Other drugs:** Allopurinol 300mg po daily – review after 4 weeks  
The use of an H<sub>2</sub> antagonist or proton pump inhibitor is recommended if prednisolone is being used

Main Toxicities: myelosuppression; mucositis; peripheral neuropathy;  
steroid side effects; ovarian failure; infertility

Anti- emetics: Mildly emetogenic

Regular FBC every 4 weeks  
Investigations: LFTs every 4 weeks  
U&Es every 4 weeks  
LDH every 4 weeks  
Blood glucose if using prednisolone, during the first cycle, then as indicated

### Dose Modifications

Haematological Toxicity: Treatment should be deferred if neutrophil count is  $< 1.0 \times 10^9/L$  and/or if platelet count is  $< 100 \times 10^9/L$ , unless secondary to bone marrow infiltration or autoimmune.  
Reduce number of days of treatment per cycle if significant thrombocytopenia or neutropenia occurs.

Renal Impairment: Patients with impaired renal function may be more prone to myelosuppression with chlorambucil.

Hepatic Impairment: Dose reduction of chlorambucil is only recommended with gross hepatic dysfunction, with dose adjustment according to response.

Patient information: CancerBACUP leaflet for Chlorambucil

References: CLL4 trial; MRC Adult Leukaemia Working Party, 2001  
<sup>1</sup>Jaksic, B et al; Nouv Rev Fr Haematol 1988; 30: 437 – 442, (referenced in Medical Management of Haematological Malignant Disease (1998) Ed EJ Freireich, HM Kantarjian)

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