ALEMTUZUMAB

Third or fourth line option for patients with refractory CLL
Only for use after funding approved by Trust/PCT – also consider discussion with tertiary centre as appropriate
(Note that high dose methylprednisolone may be a cost effective alternative in those patients who can tolerate it medically)

Drug/Dosage: **Alemtuzumab dose escalation** (with pre-medication), as follows:
Day 1: 3mg IV
Day 2: 10mg IV
Day 3: 30mg IV
If acute severe reaction occurs at 3mg or 10mg, repeat that dose once daily until tolerated before escalating.

Then (with pre-medication):
Alemtuzumab 30mg IV three times per week (Mon, Wed and Fridays)

Pre-medication:

Steroid cover (dexamethasone 4-8mg or equivalent) IV 30 mins before each dose*
Chlorphenamine 4mg po 60 mins before each dose (or 10mg IV 30 mins pre dose)
Paracetamol 1000mg po 60 minutes before each dose
*Once dose escalation achieved, the steroid dose may be reduced and/or given orally 60 minutes before each dose

Administration: Intravenously in 100ml Sodium Chloride 0.9% over 2 hours

Other Drugs: Allopurinol 300mg po od – review after 2 weeks
PCP prophylaxis - prescribe according to unit practice/protocol (generally until 6 months after completion of treatment, or according to CD_4 counts)
Fluconazole for antifungal prophylaxis
Aciclovir 400mg bd until 4 months after completion of treatment
Patients showing CMV viraemia to be treated with ganciclovir

Frequency: 3 times weekly for a maximum of 12 weeks, with a bone marrow performed after 4 weeks of therapy
Discontinue if CR occurs or if no further clinical improvement over any 4 week period

Main Toxicities: infusion-related reactions; opportunistic infections; pancytopenia

Anti- emetics: mildly emetogenic

Extravasation: Non-vesicant

Reason for Update: Prepared for Network use	Approved by Chair of Network TSSG: Dr A Laurie
Version: 1	Date: 15.3.06
Supersedes: All previous versions	Review date: March 2008
Prepared by Oncology Pharmacist: S Taylor	Checked by Network Pharmacist: Jacky Turner

Regular Investigations:	FBC	weekly
	U&Es and LFTs	weekly
	Bone marrow	after 4 weeks of treatment
	CMV PCR	weekly until 2 weeks after last dose. If positive, alemtuzumab should be withheld and ganciclovir treatment initiated.

Comments: In the event of mild infusion-related reactions, temporarily stop the infusion.
If more severe, treat with IV corticosteroids, or pethidine for severe rigors and re-challenge with the same dose on the next day.
If recurrent problems with infusion-related reactions, consider extending the infusion time.

Patient must remain under observation for 1 hour after the first three doses, in case of delayed reaction.

If, at any point, therapy is withheld for more than 7 days, alemtuzumab should be reinstituted with gradual dose escalation as above.

All patients must receive irradiated blood products starting before treatment and for all future transfusions - inform patient and blood bank.

Dose Modifications

Haematological Toxicity: If severe infection, neutrophils $< 0.25 \times 10^9$/L or platelets $< 25 \times 10^9$/L, treatment should be interrupted until resolved.
If low counts occur a second time, a lower dose of 10mg is recommended after recovery.
If therapy withheld for more than 7 days, it should be re-introduced with gradual dose escalation as above.

Renal Impairment: Not studied

Hepatic Impairment: Not studied

Patient Information: CancerBACUP leaflet for Alemtuzumab

References: Keating, MJ et al; Blood (2002); 99 (10): 3554 – 3561