ALEMTUZUMAB (*MABCAMPATH)*

INDICATION: Chronic lymphocytic leukaemia

Prior to course of treatment

- Check FBC, CMV IgG (ELISA)
- Check U&Es, creat, LFTs - there is limited information on the use of alemtuzumab in renal or hepatic disease – clinical decision
- Assess for cardiac disease – there are reports of deterioration with alemtuzumab therapy. *Discuss with consultant.*
- Review anti-hypertensive therapy and discontinue if possible
- Written consent for course
- Inform blood transfusion lab that all blood products must be irradiated

Prior to each dose

- Medical review of fitness for chemotherapy – exclude active infection, major changes in organ function.
- Check FBC

Adverse infusion-related events

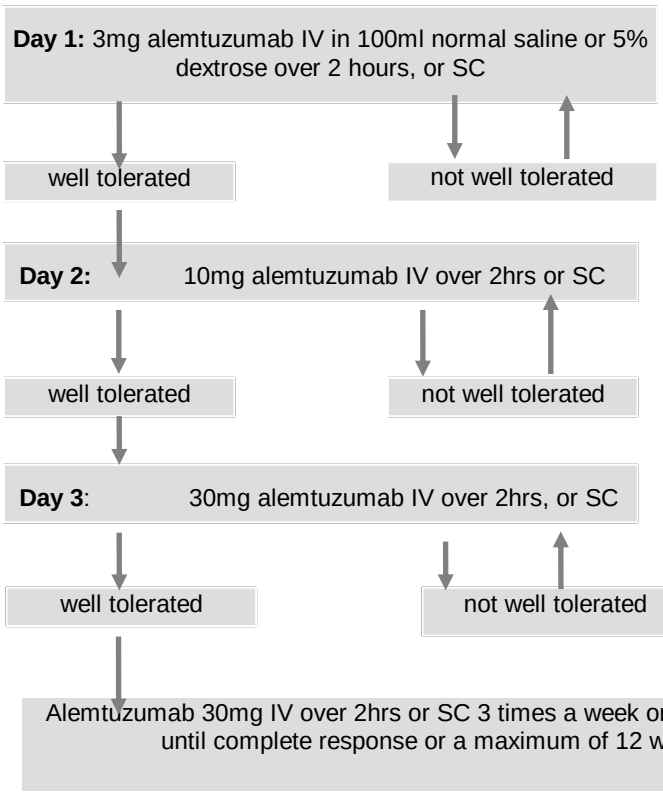
- These occur commonly with the first few infusions and their incidence then declines – fever, rigors, nausea, vomiting, hypotension, rash, urticaria, dyspnoea, headache, pruritus, diarrhoea. They may begin several hours later.
- They are less common with subcutaneous administration
- Anaphylaxis may also occur and medications for the management of anaphylaxis, i.e adrenaline, chlorpheniramine, hydrocortisone, and resuscitation equipment, must be available for immediate use.

Premedication

- Piriton 10mg IV or 4mg PO, and paracetamol 1g PO 30mins before each dose and 4hrs after.
- For severe rigors, stop infusion, give hydrocortisone 100mg IV. Consider pethidine 25-50mg IV if no better.
- If patient experiences severe infusion-related events premedicate with hydrocortisone 100mg IV but steroid should be halted as soon as possible due to the risks of additional immunosuppression
- If patient develops a rash give additional Piriton 4mg 4-6hrly
- Manage hypotension with hydration with N saline
- If patient develops dyspnoea and wheeze stop infusion, give inhaled Salbutamol+/- prednisolone.

Management of haematological toxicity

- Thrombocytopenia is most common between weeks 2-4 and is usually transient
- Give platelet transfusion if platelet count ≤ 10 and stop alemtuzumab if there is bleeding
- Neutropenia is most common between weeks 4-8 and is usually transient
- If neutrophils < 0.5 give GCSF and continue alemtuzumab
- If neutrophils < 0.25 give GCSF and stop alemtuzumab until neutrophils recover to above this level.
- If there is febrile neutropenia stop alemtuzumab
- If treatment is withheld for > 7days alemtuzumab must be reinstituted by gradual dose escalation.



NB: If treatment is stopped for > 7 days restart at 3mg

Other medications

Cotrimoxazole 480mg od and for 3 months after completion *

Acyclovir 200mg qds and for 3 months after completion *

Allopurinol 300mg od days 1 -28

**continue for longer if there is persisting lymphopaenia*

Infection and viral reactivation

- Patients with refractory/relapsed CLL already have impaired immune function. This is further compromised by T-cell depletion caused by alemtuzumab.
- CMV reactivation occurs in 15-25% of patients with the peak incidence at 3-6 weeks.
- CMV-seropositive patients must have blood sent for CMV PCR if they have fever that develops or persists outside of treatment days.
- If fever has not resolved and CMV PCR is positive stop alemtuzumab and treat with IV ganciclovir or valganciclovir PO. Restart alemtuzumab when infection has cleared.
- If CMV PCR is positive and there are pulmonary symptoms consider bronchoscopy and lavage.
- Remember that CMV infection may occur in the absence of CMV viraemia.

Duration of alemtuzumab treatment

- If disease is progressing stop treatment.
- If disease is responding or stabilized continue for at least 6 weeks.
- If there has been no further response in blood or nodes over a 4 week period stop treatment.

Alemtuzumab Toxicities	
Neutropenic sepsis	Thrombocytopenia
Opportunistic infection	Infusion-related adverse events (above) & anaphylaxis
Oedema	Myocardial infarction & cardiac arrest

Reference

Keating et al. Management Guidelines for Use of Alemtuzumab in B-cell Chronis Lymphocytic Leukaemia. Clin Lymphoma Mar 2004

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Date	July 2013
Review date	July 2015