BENDAMUSTINE- RITUXIMAB (LYMPHOMA)

INDICATION: Follicular lymphoma, mantle cell lymphoma

Prior to a course of treatment

- Check renal and liver function – *if abnormal discuss with consultant & see dose modification*
- Check FBC. Patient should have adequate bone marrow reserve, i.e neutrophils > 1.0, platelets >75 unless cytopaenia is due to disease, e.g marrow infiltration, splenomegaly - *if not discuss with consultant*
- Note tumour lysis syndrome has been reported with 1st cycle – maintain hydration, allopurinol prophylaxis (see below), monitor biochemistry
- Inform blood transfusion that all blood products must be irradiated
- If appropriate discuss possibility of pregnancy with female patients and need for contraception with both male and female patients. Discuss risk of infertility - offer semen cryopreservation to male patients.
- Written consent for course

Prior to each cycle

- Medical review of fitness for chemotherapy – exclude active infection, major changes in organ function
- Check FBC, U&Es, creat, LFTs - neutrophils should be >1.0 and platelets >75 *(see dose modification)*

Day 1	Rituximab	375mg/m^2	IV in 500ml N saline *(see protocol for rituximab)*
Days 1 and 2	Bendamustine	90mg/m^2	IV in 0.5L N saline over 30 – 60mins
Repeat cycle every 28 days for max. 6 cycles			

Prophylaxis for acute emesis	Ondansetron + dexamethasone
Prophylaxis for delayed emesis	Metoclopramide
Other medications	Allopurinol with cycle 1 (excluding days 1 and 2 – severe skin reactions have been reported if given with bendamustine)

Dose modification for haematological toxicity (unless due to disease)

• Neuts > 1.0 and plats > 75	Proceed with bendamustine 100% dose
• Neuts <1.0 and/or platelets<75 when cycle due	Delay for up to 2 weeks and proceed if parameters met – if not met reconsider suitability for bendamustine
• If treatment delayed due to neutropenia <1.0	Proceed at 100% dose with GCSF support
• If treatment delayed due to neutropenia despite GCSF	Proceed with 75% dose Bendamustine for first delay, 50% for second delay
• If treatment delayed due to neutropenia despite GCSF and dose reduction	Proceed with 50% bendamustine
• If treatment delayed due to platelets <75 when treatment due	Proceed with 75% dose bendamustine for first delay, 50% for second delay

• Treatment delay due to thrombocytopenia despite dose reduction to 50%	Reconsider suitability for bendamustine
Dose modification for renal dysfunction	
• Creat. Clear <40ml/min	Bendamustine has not been studied in this group – clinical decision
• Creat clearance 40 – 60ml/min	Limited information – clinical decision. Use with caution.
For liver dysfunction (unless due to disease)	
• Moderate dysfunction – AST > 2.5 X ULN and bili >50 X ULN	Bendamustine has not been studied in this group of patients – clinical decision. Use with caution.
• Mild dysfunction – AST 1 – 2.5 X ULN, bili 20-50	Reduce Bendamustine by 30%

Bendamustine Toxicities	
Neutropenic sepsis & thrombocytopenia	Nausea & vomiting
Amenorrhoea & infertility (offer semen cryopreservation)	Constipation
Diarrhoea	Fatigue
Infusion reactions – fever, rigors, hypotension, pruritus	Rash
Mucositis	Transient elevation of serum creatinine
Tumour lysis syndrome with 1st cycle	See also rituximab toxicities

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