RGCVP

INDICATION:

CD20-positive high-grade non-Hodgkin Lymphoma in patients in which R-CHOP is not indicated (ejection fraction <50% or risk factors for cardiovascular disease).

Prior to a course of treatment

- Blood tests - FBC, DAT, U&Es, LDH, ESR, urate, calcium, magnesium, creatinine, LFTs, glucose, Igs, β2 microglobulin, hepatitis B core antibody and hepatitis BsAg, hepatitis C antibody, EBV, CMV, VZV, HIV 1+2 after consent, group and save.
- Hydration - *in patients with bulky disease* pre-hydrate with sodium chloride 0.9% 1 litre over 4-6 hours. Patients at high risk of tumour lysis refer to tumour lysis protocol
- Treatment should be agreed in the relevant MDT
- If appropriate discuss possibility of pregnancy with female patients and need for contraception with both male and female patients. Discuss (low) risk of infertility - offer semen cryopreservation to male patients
- Written consent for course

Prior to each dose

- Medical review of fitness for chemotherapy – exclude active infection, major changes in organ function
- Check FBC, U&Es, creat, LFTs - neuts must be >1.0 and plats > 100 – *see dose modifications*

Day 1	Rituximab	375mg/m^2 in 500mL Sodium Chloride 0.9%	IV Infusion (see protocol for rituximab)
	Cyclophosphamide	750mg/m^2	IV Bolus
	Vincristine	1.4mg/m^2 in 50mL Sodium Chloride 0.9%*	IV Infusion over 5min
	Gemcitabine	750mg/m^2 in 250mL Sodium Chloride 0.9%	IV Infusion over 30min
Day 1-5	Prednisolone	100mg	Oral Daily
Day 8	Gemcitabine	750mg/m^2 in 250mL Sodium Chloride 0.9%	IV Infusion over 30min
Day 9-13	Filgrastim	300microgram	SC Daily 5 days
		* max. 2mg	
Repeat cycle every 21days for up to 6 cycles			

Prophylaxis for acute emesis	Ondansetron IV 8mg
Prophylaxis for delayed emesis	Metoclopramide 10mg tds prn
Other medications	Allopurinol 300mg PO OD (first cycle only) Co-trimoxazole 480mg PO OD (continue for 3months after last cycle) Aciclovir 200mg PO TDS (continue for 3months after last cycle) Lansoprazole 30mg PO OD

Dose modifications	
Neutrophils > 1 and Platelets > 75	No dose modification necessary

Neutrophils 0.5-0.9 and/or Platelets 50-74	Reduce doses of Gemcitabine, Cyclophosphamide and Vincristine by 25%
Neutrophils < 0.5 and/or Platelets < 50	Delay next cycle until Neutrophils > 1 and Platelets > 75. Give Day1 of next cycle at 100% dose but omit Day 8
Dose modificaion in Renal Impairment	
Creatinine clearance < 30ml/min	Consider Dose reduction of Gemcitabine
Creatinine clearance 10-20ml/min	Reduce dose of cyclophosphamide by 25%
Creatinine clearance <10ml/min	Reduce dose of cyclophosphamide by 50%
Dose modificaion in Hepatic Impairment	
Bilirubin > 5μmol/L	Reduce dose of vincristine by 50%
Bilirubin > 5μmol/L and ALT>180IU/L	Omit vincristine

Toxicities

- Cyclophosphamide may irritate the bladder mucosa. Patients should be encouraged to drink a minimum of three litres of fluid per 24 hrs.
- Vincristine may cause neurotoxicity.
- Gemcitabine may cause elevation of liver transaminases (AST and ALT), increased bilirubin and alkaline phosphatase, haematuria, oedema/peripheral oedema.
- Rituximab may cause patient chillness, fever, headache, tiredness, aching muscles and joints, itching redness of skin, nausea and mild drop in blood pressure.

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