Canterbury DHB
District Health Board
Te Poari Hauora ō Waitaha

Non-Hodgkins Lymphoma
Outpatient Dose-Adjusted R-EPOCH
Cycle 1

Height	cm
Weight	kg
BSA	m^2

Attach patient label

Cycle length	21 days
Course	1
Destination	

CBC	Day 1	Limits
Date		
Hb		
Neuts		
Plts		

Dose Level ________

References: Wilson et al. Dose-adjusted EPOCH chemotherapy for untreated large B-cell lymphomas. Blood. 2002 99: 2685-2693
Svirskis et al. J Oncol Pharm Practice 2018 0(0): 1-10

Hypersensitivities/Allergies

PRN antiemetics
Domperidone 10mg PO QID PRN
+/- Cyclizine 25-50mg PO TDS PRN
Note: patients will require a CVAD inserted prior to administration of this chemotherapy.

Agent	**Round**
Rituximab	50mg
Doxorubicin	2mg
Vincristine	0.1mg
Etoposide	10mg
Cyclophosphamide	50mg

DOSE MODIFIED:No Yes

Day	Date	Time	Agent	Dose		Route	Instructions	Doctor	Nurse	Check	Start	Stop
1			Methylprednisolone	100	mg	IV	In 100ml sodium chloride 0.9% over 15 mins					
			Paracetamol	1000	mg	PO	Give 30 – 60 minutes prior to rituximab					
			Loratadine	20	mg	PO	Give 30 – 60 minutes prior to rituximab					
			Rituximab 375 mg/m² **(see page 4 for administration chart)**		mg	IV	Standard infusion: added to 500 mL sodium chloride 0.9%					
2			**Prednisone 60 mg/m² (= mg) PO BD for 5 days**				Prescribe on an outpatient prescription					
		T=0h	**Doxorubicin* mg/m²**		mg	IV	Made up to exactly 240ml with sodium chloride 0.9%, prepared in an elastomeric pump, run at 5ml/hour, for 48 hours.					
			Vincristine 0.8 mg/m²		mg	IV						
			Etoposide* mg/ m²		mg	IV						

***See dosing guidelines on page 3 for doxorubicin, etoposide & cyclophosphamide doses. Doctor should indicate the patient's dose level at the top of each page.**
Multiply dose basis (mg/m2/day) for doxorubicin and etoposide by 2 to get mg/m2/48 hours as chemotherapy is prepared in a 48 hour continuous infusion.

Supportive care required for all cycles: ***Omeprazole 20mg daily Co-trimoxazole (sulfamethoxazole + trimethoprim) 480mg daily Ondansetron 8mg PO BD on days of chemotherapy Docusate and senna 2 BD Molaxole 1-2 sachets BD prn***

Consultant: **NZMC Reg No:** **Special Authority:** **Rituximab:**
Filgrastim:

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Dose Level ___________

Day	Date	Time	Agent	Dose		Route	Instructions	Doctor	Nurse	Check	Start	Stop
4		T= +48h	**Doxorubicin* mg/m²**		mg	IV	Made up to exactly 240ml with sodium chloride 0.9%, prepared in an elastomeric pump, run at 5ml/hour, for 48 hours.					
			Vincristine 0.8 mg/m²		mg	IV						
			Etoposide* mg/ m²		mg	IV						
6		T= +96h	**Cyclophosphamide* mg/m²**		mg	IV	In 500 mL sodium chloride 0.9% over 1 hour					
7			**Filgrastim 5 mcg/kg** *(round to nearest syringe size, 300 mcg or 480 mcg)*		mcg	subcut	Once daily, starting 24 hours post chemotherapy (prescribe on an outpatient prescription – special authority required)					

***See dosing guidelines on page 4 for doxorubicin, etoposide & cyclophosphamide doses. Doctor should indicate the patient's dose level at the top of each page.**
Multiply dose basis (mg/m2/day) for doxorubicin and etoposide by 2 to get mg/m2/48 hours as chemotherapy is prepared in a 48 hour continuous infusion.

Patients must have TWICE weekly bloods (Monday and Thursday) between cycles.

Attach patient label

Dose adjustment paradigm

- **Measurement of ANC nadir based on twice weekly FBC only (3 days apart) Only use twice weekly FBC for dose-adjustment, even if additional FBCs are obtained.**
- **On day 21, if ANC ≥ 1.0 x 10^9/L and platelets ≥ 100 x 10^9/L, begin treatment.**
- **On day 21, if ANC < 1.0 x 10^9/L and platelets < 100 x 10^9/L, delay up to 1 week. G-CSF may be started and stopped 24 hours before treatment. If counts still low after 1 week, delay and reduce 1 dose level below last cycle.**
- **Dose adjustments *above* level 1 apply to etoposide, doxorubicin and cyclophosphamide; dose adjustments *below* level 1 apply to cyclophosphamide only.**

- **Reduce vincristine 25% or 50% for grade 2 or 3 motor neuropathy, respectively, and 50% for grade 3 sensory neuropathy.**

Drug doses based on previous cycle ANC or platelet nadir:

ANC nadir (x 10^9/L)	**Dose Level compared to last cycle**
≥ 0.5 on all measurements	Increase by 1 dose level above last cycle
< 0.5 on 1 or 2 measurements	SAME
< 0.5 on ≥ 3 measurements	Decrease by 1 dose level below last cycle
OR	
Platelets nadir (x 10^9/L)	
< 25* on 1 measurement	Decrease by 1 dose level below last cycle

*This does not apply to patients who have low platelets at baseline due to lymphoma or immune-mediated mechanism caused by lymphoma. No delay or dose reduction is required in these cases. The dose adjustments for these patients will be based solely on the ANC nadir and the product information or clinician's judgement.

Drugs (mg/m^2/day)	**Drug doses per dose level**							
	-2	**-1**	**1****	**2**	**3**	**4**	**5**	**6**
Doxorubicin	10	10	10	12	14.4	17.3	20.7	24.8
Etoposide	50	50	50	60	72	86.4	103.7	124.4
Cyclophosphamide	480	600	750	900	1080	1296	1555	1866

****Starting dose level**

This table has been reproduced from eviQ Cancer Treatments Online (Cancer Institute of NSW) Available at www.eviq.org.au

Rituximab 375 mg/m^2 giving instructions	
	Patient label
Date	
Standard infusion:	Commence infusion at 50 mg/hr for the first hour, if no side effects; increase the infusion rate in 50 mg increments every 30 minutes to a maximum rate of 400 mg/hr. Remember that the IV line will have been primed with saline therefore rituximab will not be infused immediately. To calculate 50mg in _____mL Total volume of bag X 50 mg = _____mL Total dose in bag
Rapid infusion:	If no previous toxicities, give 20% of the dose over 30 minutes and the remaining 80% over the following 60 minutes.
If any adverse effects noted:	Discontinue infusion, evaluate severity of symptoms, and treat accordingly. If reactions settle, recommence at ½ the previous rate. Consider hydrocortisone 100 mg IV if required, plus chlorphenamine and paracetamol depending on time interval.
Recordings:	**Document T, P, R, B/P and EWS on adult observation chart (C280010) at baseline, 30 minutes, 60 minutes, and hourly thereafter (more frequently if patient is reacting).** **Following infusion:** Observe for delayed side effects, for 1 hour following 1st infusion. If patient has reacted, observe following subsequent infusion also.

	Time	Rate	Comments
Baseline			

Note: •Monitor patients with high tumour burden for infusion related reactions and tumour lysis syndrome.
•Ensure adequate hydration and consider addition of allopurinol for 1 – 3 courses.

DO NOT SHAKE during preparation, rotate gently. Aggregation & precipitation of antibody can occur.

PRN medications for Hypersensitivity reactions

Date	Time	Medication	Dose	Route	Doctor	Nurse	Check
		Hydrocortisone	100 mg	Slow IV bolus			
		Paracetamol	1000 mg	PO			
		Chlorphenamine	10 mg	Slow IV bolus			

PRN antiemetics				DR	NURSE SIGN					
	Domperidone	10 mg	PO QID							
	Cyclizine	50 mg	PO/IV Q8H							
	Lorazepam	0.5-1 mg	PO BD							