

GEM-P (Chemo-T Trial)

Indication: Relapsed or refractory Hodgkin's and non-Hodgkin's lymphoma

Prior to a course:

- Measure calculated eGFR. If < 50ml/min then remeasure using 24hr urine creatinine clearance
- Patient should have adequate bone marrow reserve before commencing treatment, i.e neuts >1.0, platelets >100, unless due to marrow infiltration, splenomegaly.- *if not discuss with consultant*
- 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
- Use gemcitabine with caution if LFTs abnormal – *discuss with consultant & see dose modification*
- **If PBSC harvest planned** inform blood transfusion laboratory that further blood and platelet transfusions must be irradiated beginning from 7 days prior to PBSC harvest until completion. Assess venous access or arrange for femoral venous line following 4th cycle with a view to apheresis
- Written consent for course

Prior to each cycle

- Medical review of fitness for chemotherapy – exclude active infection, major changes in organ function.
- Review for cisplatin toxicities (nephrotoxicity, hearing loss, tinnitus, neuropathy) – *see dose modifications*
- Check U&Es, creat, Ca, Mg, LFTs. Calculated eGFR prior to each dose of cisplatin. If < 50ml/min then remeasure using 24hr urine.
- If there is toxicity solely due to cisplatin that requires cisplatin is stopped consider replacing with carboplatin (AUC 5) – *discuss with consultant*
- Neutrophils must be > 0.5 and platelets >50 to proceed. **Note dose changes due to haematological toxicity should be made according to the blood count on the day of treatment.** *See dose modifications.*
- Ensure patient is well hydrated and start monitoring urine output prior to each dose of cisplatin

Day 1	Gemcitabine	1000mg/m ²	IV	in 250ml N saline over 30mins
	Methylprednisolone	1000mg	PO (or IV if vomiting)	
Day 2	Methylprednisolone	1000mg	PO	
Day 3	Methylprednisolone	1000mg	PO	
Day 4	Methylprednisolone	1000mg	PO	
Day 5	Methylprednisolone	1000mg	PO	
Day 8	Gemcitabine	1000mg/m ²	IV	in 250ml N saline over 30mins
Day 15	Gemcitabine	1000mg/m ²	IV	in 250ml N saline over 30mins
	Cisplatin	100mg/m ²	IV	In 1.0L N saline over ~ 2 hrs (1mg/min)
	<u>Cisplatin and hydration</u>			
	T – 2.5 hr	1.0L N saline (+20mmol KCL+10mmol MgSO ₄) over 2hr		
	T – 30mins	10% Mannitol 125ml IV over 30mins - <i>check urine output >100ml/hr</i>		
	T = 0 - 2hrs	Cisplatin 100mg/m ² in 1.0L N saline by IV infusion at 1mg/min (approx. 2hrs)		
	T = +2hrs	1.0L N saline (+20mmol KCL+10mmol MgSO ₄) over 2 hrs		
	<i>Maintain urine output of at least 100ml/hr – repeat 10% mannitol if necessary</i>			

NB: Doses are capped at 2.2mg/m²

If GCSF prophylaxis indicated give on days 4-6, 11-13, 18-20

Repeat cycle every 28 days for 4 - 6 cycles

Prophylaxis for acute emesis	5HT antagonist
Prophylaxis for delayed emesis	5HT antagonist + metaclopramide
Other medications	Allopurinol 300mg od for 5 days with cycle 1
	Cotrimoxazole 480mg od to end of treatment plus 4 weeks

Dose modifications for toxicity – see Chemo-T trial protocol

GEM-P Toxicities

Neutropenic sepsis	Nausea& vomiting (moderate - severe)
Thrombocytopenia	Amenorrhoea & infertility (offer semen cryopreservation)
Mucositis	Nephrotoxicity
Alopecia	Peripheral neuropathy
Ototoxicity	Haemolytic-uraemic syndrome (gemcitabine)
Somnolence & fatigue (gemcitabine)	Liver dysfunction (gemcitabine)
Rash & pruritus	Dyspnoea – pneumonitis secondary to gemcitabine
Proteinuria & haematuria	

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