VCP

INDICATION (ICD10) C71, C72

1. Medulloblastoma and PNET following radiotherapy.
   PS 0, 1, 2

REGIMEN

Day 1	**CISPLATIN**	70mg/m^2	IV infusion	1000ml sodium chloride 0.9% over 2 hours
	LOMUSTINE (CCNU)	75mg/m^2 (maximum 200mg)	oral	single dose only
Days 1 and 8	**VINCRISTINE**	1.5mg/m^2 (maximum 2mg)	IV infusion	50ml sodium chloride 0.9% over 10 minutes

CYCLE FREQUENCY AND NUMBER OF CYCLES

Every 42 days for 6 cycles starting 6 weeks after radiotherapy.

ADMINISTRATION

Lomustine available as 40mg capsules
Take at night on an empty stomach

ANTI-EMETICS

High emetic risk day 1
Minimal emetic risk day 8
Patients may already be taking dexamethasone for raised intracranial pressure

CONCURRENT MEDICATION REQUIRED

Cisplatin	Ensure adequate pre and post hydration. If urine output is <100 ml/hour or if patient gains >2kg in weight during IV administration post cisplatin give 20-40 mg furosemide PO/IV.
Lomustine	Lorazepam 1mg single dose

EXTRAVASATION AND TYPE OF LINE / FILTERS

Cisplatin – exfoliant
Vincristine - vesicant (peripheral line free flow or central line via pump)

Central or peripheral line

INVESTIGATIONS

Blood results required before SACT administration
FBC, U&E, Mg^{++} and LFTs and creatinine every 42 day cycle
Neutrophils x 10^9/L ≥1.5
Platelets x 10^9/L ≥100
GFR assessed using EDTA result or calculated creatinine clearance at the Consultant's discretion.
Baseline weight and every cycle

MAIN TOXICITES AND ADVERSE REACTIONS

Cisplatin	Nephrotoxicity – ensure adequate pre and post hydration is prescribed. Ototoxicity – assess patient for tinnitus or hearing abnormalities.
Lomustine	Myelosuppression
Vincristine	Neurotoxicity

INTERACTIONS WHICH MAY REQUIRE DOSE MODIFICATIONS
(not exhaustive list check SPC/BNF/Stockleys)

Cisplatin	Aminoglycosides increased risk of nephrotoxicity and ototoxicity. Renal function should be well monitored and audiometric tests as required. Cisplatin can cause a decrease in phenytoin serum levels. This may lead to reappearance of seizures and may require an increase of phenytoin dosages.
Vincristine	Lots of interactions, check carefully.

DOSE MODIFICATIONS
Haematological
Lomustine and cisplatin (not vincristine)
If neutrophils <1.5x10^9/l and platelets <100x10^9/l, delay 1 week or until count recovered then restart at 75% dose, then at 50% dose with further myelosuppression can be reduced further to 25% dose.

Non-haematological
Cisplatin
If patient complains of tinnitus, tingling of fingers and/or toes, discuss with SpR or Consultant before administration.
Significant neourotoxicity consider substituting with carboplatin

Vincristine

Epileptic seizure or ileus	Stop vincristine in this course, reduce to 1mg/m^2 next cycle. After recovery give vincristine at 100% dose.
Significant dysaethesia	Omit vincristine until recovery. muscle weakness or abdominal pain After recovery give vincristine at 100% dose

Hepatic impairment
Cisplatin
No need for dose adjustment.

Lomustine
Mild and moderate no need for dose adjustment is expected
Severe not recommended

Vincristine

Bilirubin >51micromol/L	give 50% dose

Renal impairment
Cisplatin

CrCl >60ml/min	give 100% dose
CrCl 50-59ml/min	give 75% dose
CrCl 40-49ml/min	give 50% dose (curative intent) not recommended (palliative intent)
CrCl <40ml/min	not recommended

Lomustine

CrCl >50ml/min	give 100%
CrCl 30-50ml/min	give 75%
CrCl <30ml/min	Not recommended

Vincristine
No dose adjustment is needed.

REFERENCES

1. Guidelines for the management of medulloblastoma following closure of the HIT-SIOP PNET 4 study. Version 2.0 (28-02-2007)
2. www.bnos.org.uk Adult PNET rare tumour guidelines
3. Giraud EL, de Lijster B, Krens SD, Desar IME, Boerrigter E, van Erp NP. Dose recommendations for anticancer drugs in patients with renal or hepatic impairment: an update. Lancet Oncol 2023; 24: e229.

Assessments

	Pre	Cycle 1	Cycle 2	Cycle 3	Cycle 4	Ongoing
Clinical assessment	X		Pre cycle		Pre cycle	Every cycle
SACT assessment (PS and toxicities)	X	X	X	X	X	Every cycle
FBC	X	X	X	X	X	Every cycle
U&E, calcium, magnesium & LFT	X	X	X	X	X	Every cycle
CrCl	X	X	X	X	X	Every cycle
CT scan	X					At cycle 6, Inform consultant team if not booked
Informed consent	X					Verbal each cycle
Height	X					
Weight recorded	X	X	X	X	X	Every cycle