CYCLOPOSPHAMIDE ETOPOSIDE – local funding required

INDICATION (ICD10) C71.6
1. Medulloblastoma or other widespread intracranial tumour (unlicensed). PS 0, 1, 2

REGIMEN
Days 1 to 21 ETOPOSIDE 100mg (50mg if heavily pretreated) orally once daily
Days 22 to 42 CYCLOPHOSPHAMIDE 100mg orally once daily

CYCLE FREQUENCY AND NUMBER OF CYCLES
Every 42 days for up to 1 year

ADMINISTRATION
Cyclophosphamide is available as 50mg tablets.
Etoposide is available as 50mg and 100mg capsules

ANTI-EMETICS
Low emetic risk

CONCURRENT MEDICATION REQUIRED
Sodium valproate 20mg/kg/day po days 1 to 42
Co-Trimoxazole 480mg OD on Monday, Wednesday and Friday

EXTRAVASATION AND TYPE OF LINE / FILTERS
Not applicable

INVESTIGATIONS
Blood results required before SACT administration
FBC, U&E and LFTs days 1 and 14, then monthly
Neutrophils x 10^9/L ≥1.5
Platelets x 10^9/L ≥100
Baseline weight and every cycle

MAIN TOXICITES AND ADVERSE REACTIONS

Cyclophosphamide	may irritate bladder, drink copious volumes of water.

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

Cyclophosphamide	Cytochrome P450 enzyme inducers (e.g. rifampicin, carbamazepine, phenytoin, St Johns Wort, corticosteroids): may increase active cyclophosphamide metabolites. Allopurinol, Cimetidine and protease inhibitors: may increase active metabolites. Aprepitant, Ciprofloxacin, Fluconazole, Itraconazole: may reduce activation of cyclophosphamide and alter the effectiveness of treatment. Grapefruit juice: decreased or delayed activation of cyclophosphamide. Patients should be advised to avoid grapefruit juice.

DOSE MODIFICATIONS

Haematological

Platelets <100 or neutrophils <1.5x10^9/L delay until recovered and then give 50% dose of both drugs

Hepatic impairment

Etoposide

Bilirubin ≥50micromol/L or decreased albumin	give 50% dose

Renal impairment

Cyclophosphamide

GFR >20ml/min	give 100% dose
GFR 10-20ml/min	give 75% dose
GFR <10ml/min	give 50% dose

Etoposide

CrCl >50ml/min	give 100% dose
CrCl 15-50ml/min	give 75% dose
CrCl <15ml/min	Further dose reduction

REFERENCES

1. Adaptation from SIOP High Risk Medulloblastoma maintenance therapy proposal