

CYCLOPHOSPHAMIDE VINCRISTINE DACARBAZINE (CVD)

INDICATION (ICD10) C37

1. Thymoma

REGIMEN

Day 1 VINCRISTINE 1.4mg/m² (maximum 2mg) in 50ml sodium chloride 0.9% IV infusion over 10 minutes

CYCLOPHOSPHAMIDE 750mg/m² IV bolus

DACARBAZINE 600mg/m² in 1000ml sodium chloride 0.9% IV infusion over 60 minutes

Day 2 DACARBAZINE 600mg/m² in 1000ml sodium chloride 0.9% IV infusion over 60 minutes

CYCLE FREQUENCY AND NUMBER OF CYCLES

Every 21 days for 6 cycles

ANTI-EMETICS

High emetic risk days 1 and 2

CONCURRENT MEDICATION REQUIRED

Dacarbazine	Anaphylaxis treatment should be prescribed if the patient has had an anaphylactic episode previously. Dexamethasone 20mg IV bolus Chlorphenamine 10mg IV bolus H ₂ antagonist
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EXTRAVASATION AND TYPE OF LINE / FILTERS

Cyclophosphamide -

Dacarbazine – vesicant

Vincristine - vesicant

Central line

INVESTIGATIONS

Blood results required before SACT administration

FBC, U&E and LFTs every week

Neutrophils x 10⁹/L ≥1.5

Platelets x 10⁹/L ≥100

ECG (possible ECHO) required if patient has preexisting cardiac disease

Creatinine clearance (GFR) calculated, at the Consultants discretion

Serum creatinine

Baseline weight and every cycle

MAIN TOXICITIES AND ADVERSE REACTIONS

Cyclophosphamide	may irritate bladder, drink copious volumes of water.
Dacarbazine	An influenza type syndrome of fever, myalgias and malaise usually occurring after large single doses and approximately seven days after treatment lasting 7 to 21 days. Anaphylaxis can occur very rarely following administration of dacarbazine. Photosensitivity reactions may occur rarely. Increases in AST, ALT, alk phos, LDH. Levels usually return to normal within two weeks
Vincristine	Neuropathy

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.
Dacarbazine	Reduce absorption phenytoin increase risk of convulsions

DOSE MODIFICATIONS

Hepatic impairment

Dacarbazine

Mild and moderate without renal impairment: no dose adjustment

Severe: not recommended

Vincristine

Bilirubin 25-51 or AST 60-180u/L	give 50%
Bilirubin >51micromol/L and normal AST	give 50%
Bilirubin >51micromol/L and AST >180u/L	omit

Renal impairment

Cyclophosphamide

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

Dacarbazine

CrCl ≥30ml/min without hepatic impairment	give 100% dose
CrCl <30ml/min	give 70% dose

REFERENCES

1. Chapman, PB et al; JCO 1999; 17 (9): 2745-2751