

## CAV

### INDICATION (ICD10) C34

1. First line treatment for SCLC in patients not able to tolerate platinum and etoposide eg PS 3.
2. Can be used as second line treatment after relapse. PS 0, 1, 2

### REGIMEN

Day 1	VINCRIStINE	1.3mg/m <sup>2</sup> (maximum 2mg) in 50ml sodium chloride 0.9% IV infusion over 10 minutes
	DOXORUBICIN	40mg/m <sup>2</sup> IV bolus
	CYCLOPHOSPHAMIDE	750mg/m <sup>2</sup> IV bolus

### CYCLE FREQUENCY AND NUMBER OF CYCLES

Every 21 days for 6 cycles (subject to tolerance and response)

### ANTI-EMETICS

High risk day 1

### CONCURRENT MEDICATION REQUIRED

All	None required
-----	---------------

### EXTRAVASATION AND TYPE OF LINE / FILTERS

Cyclophosphamide – neutral

Doxorubicin – vesicant

Vincristine – vesicant

Peripheral line

### INVESTIGATIONS

Blood results required before SACT administration

FBC, U&E and LFTs every cycle

Neutrophils x 10<sup>9</sup>/L ≥1.5

Platelets x 10<sup>9</sup>/L ≥100

Baseline weight and every cycle

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

### MAIN TOXICITIES AND ADVERSE REACTIONS

Cyclophosphamide	may irritate bladder, drink copious volumes of water.
Doxorubicin	Cardiotoxicity – Monitor cardiac function to minimise the risk of anthracycline induced cardiac failure. Doxorubicin may be stopped in future cycles if signs of cardiotoxicity e.g. cardiac arrhythmias, pericardial effusion, tachycardia with fatigue.
Vincristine	Neuropathy

## INTERACTIONS WHICH MAY REQUIRE DOSE MODIFICATIONS

(not exhaustive list check SPC/BNF/Stockleys)

Cyclophosphamide	<p>Cytochrome P450 enzyme inducers (e.g. rifampicin, carbamazepine, phenytoin, St Johns Wort, corticosteroids): may increase active cyclophosphamide metabolites.</p> <p>Allopurinol, Cimetidine and protease inhibitors: may increase active metabolites.</p> <p>Aprepitant, Ciprofloxacin, Fluconazole, Itraconazole: may reduce activation of cyclophosphamide and alter the effectiveness of treatment.</p> <p>Grapefruit juice: decreased or delayed activation of cyclophosphamide. Patients should be advised to avoid grapefruit juice for 48 hours before and on day of cyclophosphamide dose.</p>
------------------	---

## DOSE MODIFICATIONS

Doxorubicin maximum cumulative dose

=450 mg/m<sup>2</sup> (in normal cardiac function)

=400 mg/m<sup>2</sup> (in patients with cardiac dysfunction or exposed to mediastinal irradiation)

### Hepatic impairment

Doxorubicin

Bilirubin 20-50micromol/L	give 50% dose
Bilirubin 51-85micromol/L	give 25% dose
Bilirubin >85micromol/L or Child Pugh C	omit

Vincristine

Bilirubin >51micromol/L	give 50% dose
-------------------------	---------------

### Renal impairment

Cyclophosphamide

CrCl ≥30ml/min	give 100% dose
CrCl 10-29ml/min	give 75% dose
CrCl <10ml/min	give 50% dose

Doxorubicin

Dose reduce in severe renal impairment.

## REFERENCES

1. Greco FA et al. Am J Med 1979; 66: 625 630.
2. Roth BJ et al. J Clin Oncol 1992; 10: 282291