

CAV

Second-line treatment of Small Cell Lung Cancer

Drugs/Dosages:	Cyclophosphamide	1000mg/m ²	IV	D1 (see Comments)
	Doxorubicin	40mg/m ²	IV	D1
	Vincristine	1mg/m ² (max 2mg)	IV	D1
Administration:	Cyclophosphamide is a bolus injection Doxorubicin and Vincristine are infused via fast running infusion 0.9% Sodium Chloride			
Frequency:	3 weekly cycle 4 – 6 cycles Review prior to each cycle Clinical review after cycle 2			
Main Toxicities:	Myelosuppression (see Comments); Alopecia; Peripheral neuropathy; Constipation; Mucositis; Haemorrhagic cystitis; Cardiomyopathy; Ovarian failure / Infertility			
Anti-emetics:	Highly emetogenic			
Extravasation:	Doxorubicin & Vincristine are vesicants			
Regular Investigations:	FBC	D1		
	U&Es	D1		
	LFTs	D1		
	CXR	Every course		
	MUGA scan	see Comments		

Comments: Maximum cumulative dose of doxorubicin = 450 - 550mg/m²

A baseline MUGA scan should be performed where the patient is considered at risk of having significantly impaired cardiac contractility. If ejection fraction less than 50%, an alternative regimen should be given.

MUGA scan should be repeated if there is suspicion of cardiac toxicity at any point during treatment.

Consider reducing dose of cyclophosphamide to 600-800mg/m² in patients with poor performance status.

Patients with poor performance status or age > 70 years should receive prophylactic ciprofloxacin, 250mg twice daily for 7 days starting on Day 8, to cover the nadir.

The use of G-CSF should be discussed with the Consultant.

Reason for Update: Complete review of lung protocols	Approved by Matron: I Patterson
Version: 1	Approved by Consultant: Dr Middleton
Supersedes: All other versions	Date: 5.1.05
Prepared by: S Taylor	Checked by: J Turner

Dose Modifications

Haematological Toxicity

WBC < $3.0 \times 10^9/l$

or

Neutrophils < $1.5 \times 10^9/l$

Or

Platelets < $100 \times 10^9/l$

Delay treatment for 1 week and reduce cyclophosphamide and doxorubicin dose by 50% for subsequent courses

Renal Impairment

CrCl (ml/min)	Cyclophosphamide Dose
> 50	Give 100%
10 – 50	Give 75%
< 10	Give 50%

Hepatic impairment

Bilirubin ($\mu\text{mol/l}$)	Doxorubicin Dose
20 - 50	Give 50%
51 – 85	Give 25%
> 85	Omit

Bilirubin ($\mu\text{mol/l}$)	ALT / AST (units/l)	Vincristine Dose
26 – 51 or	60 – 180	Give 50%
> 51 and	Normal	Give 50%
> 51 and	> 180	Omit

Reference:

Roth, BJ et al, JCO, 1992; Vol 10 (2): 282-291

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