

**Systemic Anti Cancer Treatment Protocol**

**Vinorelbine Cyclophosphamide  
Sarcoma**

**PROTOCOL REF: MPHAVINCYC  
(Version No: 1.0)**

**Approved for use in:**

Rhabdomyosarcoma  
Maintenance therapy after IVADo in:  
Alveolar Rhabdomyosarcoma  
Metastatic disease with no or limited residual disease

**Dosage:**

**Schedule**

IVADo x4 -> Surgery/Radiotherapy -> IVA x5 -> +/- maintenance vinorelbine and cyclophosphamide

	Cycle 1			Cycle 2			Cycle 3			Cycle 4	Surgery / Radiotherapy
	IVADo	V	V	IVADo	V	V	IVADo		IVADo		
Week	1	2	3	4	5	6	7	8	9	10	

	Cycle 5			Cycle 6			Cycle 7			Cycle 8		Cycle 9	
	IVA			IVA			IVA			IVA		IVA	
Week	13	14	15	16	17	18	19	20	21	22	23	24	25

I= Ifosfamide, V= Vincristine, A= Actinomycin D, Do= Doxorubicin

**Maintenance Vinorelbine and Cyclophosphamide**

	Cycle 1				Cycle 2 Onwards		
	Vinorelbine	Vinorelbine	Vinorelbine		Continue Vinorelbine / Cyclophosphamide maintenance as for cycle 1 every 28 days for 6 or 12 cycles		
	Cyclophosphamide oral continuous						
Week	1	2	3	4			

Drug	Dosage	Route	Frequency
Vinorelbine	25mg/m <sup>2</sup> d1, 8 and 15	IV	Every 28 days
Cyclophosphamide	25mg/m <sup>2</sup> days 1 to 28	PO	Continuous

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## THE CLATTERBRIDGE CANCER CENTRE NHS FOUNDATION TRUST

Alveolar Rhabdomyosarcoma, or locoregional disease – give for 6 cycles ie 6 months  
Metastatic disease – 12 cycles after IVADo

### Supportive treatments:

#### Anti –emetic risk - moderate

Domperidone 10mg oral tablets, up to 3 times a day or as required

### Extravasation risk:

Vinorelbine (IV) -vesicant

### Administration:

Day	Drug	Dosage	Route	Diluent and Rate
1	Vinorelbine	25mg/m <sup>2</sup>	IV	50mL Sodium Chloride 0.9% over 5 to 10 minutes
1 to 28	Cyclophosphamide	25mg/m <sup>2</sup>	PO	Daily
8	Vinorelbine	25mg/m <sup>2</sup>	IV	50mL Sodium Chloride 0.9% over 5 to 10 minutes
15	Vinorelbine	25mg/m <sup>2</sup>	IV	50mL Sodium Chloride 0.9% over 5 to 10 minutes

#### Notes:

Administer / take cyclophosphamide in the morning to reduce drug held in the bladder overnight

Round the total cyclophosphamide dose to nearest 50mg

Flush vein with 250mL 0.9% sodium chloride free flowing after vinorelbine

### Main Toxicities:

Myelosuppression, haemorrhagic cystitis, nausea, vomiting, diarrhoea, stomatitis, alopecia, infertility  
neurotoxicity, constipation

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## Investigations and treatment plan

	Pre	Cycle 1	Cycle 2	Cycle 3	Cycle 4	Comments/ ongoing
Medical Assessment	X		X		X	Alternate cycle
Nursing Assessment	X	X	X	X	X	Before every vinorelbine
FBC	X	X	X	X	X	Before every vinorelbine
U&E & LFT	X	X	X	X	X	Day 1 only
CT scan	X					As clinically indicated
Informed Consent	X					
PS recorded	X	X	X	X	X	Every cycle day 1
Toxicities documented	X	X	X	X	X	Every visit
Weight recorded	X	X	X	X	X	Every cycle day 1

## Dose Modifications and Toxicity Management:

### Haematological toxicity

Proceed on day 1, 8 and 15 if:-

ANC $\geq 1.0 \times 10^9/L$	Platelets $\geq 80 \times 10^9/L$
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Delay 1 week on day 1 if:-

ANC $\leq 0.9 \times 10^9/L$	Platelets $\leq 79 \times 10^9/L$
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If platelets or ANC still below required levels for treatment at week 2, delay treatment again and patient will need assessment and consideration of dose reduction.

Parameter	Dose
Neutrophils $<1 \times 10^9/L$ and/or platelets $< 80 \times 10^9/L$	Stop cyclophosphamide until recovery Consider withholding day 15 vinorelbine
Further haematological toxicity	Day 1 and 8 vinorelbine – give $20\text{mg}/\text{m}^2$ vinorelbine Day 15 vinorelbine - omit

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### Non-haematological toxicity

<b>Renal</b>		
	<b>CrCl mL/min</b>	<b>Cyclophosphamide dose</b>
	Above 20	100%
	10 to 20	75%
	Less than 10	50%
<b>Hepatic</b>	<p>If ALT/AST &gt; 5 x ULN and /or bilirubin &gt; 2 x ULN suggest reduce vinorelbine dose by 20mg/m<sup>2</sup> and monitor closely for haematological toxicity</p> <p>Cyclophosphamide - Usually no reductions required, discuss with consultant if severe impairment</p>	
<b>Neurological</b>	<p>Grade 1 to 2 continue with 100% dose vinorelbine</p> <p>Grade 3 to 4 stop vinorelbine – discuss with consultant</p>	

### References:

EpSSG RMS 2005, a protocol for non-metastatic rhabdomyosarcoma, v1.2 international, July 2008  
 Dose Adjustment for Cytotoxics in Hepatic Impairment 2009  
<http://www.londoncancer.org/media/65594/hepatic-impairment-dosage-adjustment-for-cytotoxics.pdf>

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