

BC Cancer Protocol Summary for Treatment of Thymoma/Thymic Carcinoma with Cyclophosphamide, DOXOrubicin and vinCRISTine (CAV)

Protocol Code: LUOTCAV

Tumour Group: Lung

Contact Physician: *LU Systemic Therapy*

ELIGIBILITY:

Patients must have:

- First-line or salvage treatment of thymoma/thymic carcinoma

Patients should have:

- Good performance status (ECOG 0 to 1)

TESTS:

- Baseline: CBC & Diff, creatinine, alkaline phosphatase, ALT, total bilirubin, LDH
- Baseline if clinically indicated: ECG
- Before each treatment: CBC & Diff, creatinine
- If clinically indicated during treatment: total bilirubin

PREMEDICATIONS:

- Antiemetic protocol for highly emetogenic chemotherapy (see protocol [SCNAUSEA](#))

TREATMENT:

Drug	Dose	BC Cancer Administration Guideline
DOXOrubicin	50 mg/m ²	IV push
vinCRISTine	1.2 mg/m ² (maximum 2 mg)	IV in 25 to 50 mL NS over 15 minutes
cyclophosphamide	1000 mg/m ²	IV in 100 to 250* mL NS over 20 to 60 minutes (*use 250 mL for doses greater than 1000 mg)

- Repeat every 21 days x 4 to 6 cycles

DOSE MODIFICATIONS:

1. HEMATOLOGY

For cyclophosphamide and DOXOrubicin:

ANC (x 10 ⁹ /L)		Platelets (x 10 ⁹ /L)	cyclophosphamide and DOXOrubicin Dose
Greater than or equal to 1.5	and	Greater than or equal to 100	100%
1.0 to less than 1.5	or	75 to less than 100	50%
Less than 1.0	or	Less than 75	Delay

2. HEPATIC DYSFUNCTION

For DOXOrubicin:

Total bilirubin (micromol/L)	DOXOrubicin Dose
25 to 50	50%
51 to 85	25%
Greater than 85	Delay

3. NEUROTOXICITY

For vinCRISStine:

Neuropathy	vinCRISStine Dose
Areflexia	100%
Abnormal buttoning or writing	67%
Moderate motor neuropathy	50%
Severe motor neuropathy	Omit

4. RENAL DYSFUNCTION

For cyclophosphamide: Dosage may be halved or interval may be increased from 50 to 100% for [creatinine clearance less than 18 mL/minute](#).

PRECAUTIONS:

- Extravasation:** DOXOrubicin and vinCRISStine cause pain and tissue necrosis if extravasated. Refer to BC Cancer Extravasation Guidelines.
- Neutropenia:** Fever or other evidence of infection must be assessed promptly and treated aggressively.
- Cardiac Toxicity:** DOXOrubicin is cardiotoxic and must be used with caution, if at all, in patients with severe hypertension or cardiac dysfunction. Cardiac assessment recommended if lifelong dose of 450 mg/m² to be exceeded. Refer to the BC Cancer Drug Manual for more information.

Contact the [LU Systemic Therapy physician at your regional cancer centre or the LU Systemic Therapy Chair](#) with any problems or questions regarding this treatment program.

REFERENCES:

- Livingston RB, Moore TN, Heilburn MD, et al. Small-cell carcinoma of the lung: combined chemotherapy and radiation. *Ann Intern Med* 1978;88:194-9.
- Kosmidis PA, Iliopoulos E, Pentea S. Combination chemotherapy with cyclophosphamide, adriamycin, and vincristine in malignant thymoma and myasthenis gravis. *Cancer* 1988;61:1736-40.