BC Cancer Protocol Summary for Treatment of Cancer of Unknown Primary Involving the Thorax with CISplatin and Etoposide

Protocol Code	*LUPUPE*
Tumour Group	*Lung*
Contact Physician	*Dr. Christopher Lee*

ELIGIBILITY:

- Selected unknown primary tumours
  - Rapidly growing midline tumour with prior response to irradiation
  - Rapidly growing midline tumour in a young man, with poorly differentiated carcinoma on histology and negative immunostaining for CEA and lymphoma markers
  - Neuroendocrine tumour involving the retroperitoneum, mediastinum, lungs or lymph nodes

TESTS:

- Baseline: CBC & differential, platelets, creatinine, alkaline phosphatase, ALT, total bilirubin, LDH
- Before each cycle: CBC, differential, platelets, creatinine
- If clinically indicated: bilirubin

PREMEDICATIONS:

- Antiemetic protocol for High-Moderate emetogenic chemotherapy as long as CISplatin dose is not greater than or equal to 50 mg. If CISplatin is not greater than or equal to 50 mg use antiemetic protocol for High emetogenic chemotherapy (see protocol SCNAUSEA)
- Hydrocortisone & diphenhydrAMINE for history of hypersensitivity to etoposide

TREATMENT:

Drug	Dose	BC Cancer Administration Guideline
(Drugs can be given in any sequence)		
CISplatin	25 mg/m^2/day x 3 days (days 1 to 3)	IV in **100 to 250 mL*** NS over 30 minutes
etoposide	100 mg/m^2/day x 3 days (days 1 to 3)	IV in 250 to 1000 mL NS over 45 minutes to 1 hour 30 minutes (use non-DEHP equipment with 0.2 micron in-line filter)
***If CISplatin dose less than or equal to 60 mg use 100 mL NS, if CISplatin dose greater than 60 mg use 250 mL NS**		

In cases of CISplatin toxicity or poorly functioning patients or Age greater than 75:

DRUG	DOSE	BC Cancer Administration Guidelines
CARBOplatin	AUC 5 DAY 1 only Dose = AUC x (GFR* +25)	IV in 100 to 250 mL NS over 30 minutes.

*GFR preferably from nuclear renogram, if not possible use:

$$GFR = \frac{N \times (140\text{-age in years}) \times wt\ (kg)}{\text{serum creatinine (micromol/L)}} \qquad N = 1.04 \text{ (women) or } 1.23 \text{ (men)}$$

- **Repeat every 21 days x 4-6 cycles**

DOSE MODIFICATIONS:

1. **Hematology:** for etoposide

ANC (X 10^9/L)		Platelets (x 10^9/L)	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	75%
less than 1.0	Or	less than 75	**Delay**

2. **Hepatic dysfunction:** for etoposide

Bilirubin (micromol/L)	Dose	
less than 25	100%	100 mg/m^2/day x 3 days
25 to 50	50%	50 mg/m^2/day x 3 days
51 to 85	25%	25 mg/m^2/day x 3 days
greater than 85	**Delay**	

3. **Renal dysfunction:**

For CISplatin

Calculated Cr Clearance (mL/min)	Dose
greater than or equal to 60	100%
45 to less than 60	80% CISplatin or go to CARBOplatin option (if available)
less than 45	Hold CISplatin or delay with additional IV fluids or go to CARBOplatin option (if available)

For etoposide

Initial dose modification to 75% should be considered if creatinine clearance is less than 30 mL/min. Subsequent dosing should be based on patient tolerance and clinical effect.

PRECAUTIONS:

1. **Hypersensitivity:** Monitor infusion of etoposide for the first 15 minutes for signs of hypotension. Hypersensitivity reactions have also been reported for CISplatin. Refer to BC Cancer Hypersensitivity Guidelines.
2. **Extravasation**: etoposide causes irritation if extravasated. Refer to BC Cancer Extravasation Guidelines.
3. **Neutropenia**: Fever or other evidence of infection must be assessed promptly and treated aggressively.
4. **Renal Toxicity**: Nephrotoxicity is common with CISplatin. Encourage oral hydration. Avoid nephrotoxic drugs such as aminoglycoside antibiotics.

Contact Dr. Christopher Lee or tumour group delegate at (604) 877-6000 or 1-800-663-3333 with any problems or questions regarding this treatment program.

REFERENCES:

1. Moertel CG, Kvols LK, O'Connell MJ, Rubin J. Treatment of neuroendocrine carcinomas with combined etoposide and cisplatin. Evidence of major therapeutic activity in the anaplastic variants of these neoplasms. Cancer 1991; 68(2):227-32.
2. Greco FA, Johnson DH, Hainsworth JD. Etoposide/cisplatin-based chemotherapy for patients with metastatic poorly differentiated carcinoma of unknown primary site. Semin Oncol 1992; 19(6 suppl 13):14-8.
3. Fjallskog ML, Granberg DP, Welin SL, et al. Treatment with cisplatin and etoposide in patients with neuroendocrine tumors. Cancer 2001; 92(5):1101-7.