

BC Cancer Protocol Summary for Consolidation and Salvage Therapy for Nonseminoma Using Etoposide, CISplatin, Ifosfamide, Mesna

Protocol Code

Tumour Group

Contact Physician

GUVIP2

Genitourinary

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ELIGIBILITY

Gonadal and Extragonadal Germ Cell Tumors

1. High Risk Presentation (international consensus prognostic [Cambridge] classification: see GUBEP protocol for definition)
 - GUVIP2 may be used as an alternative to GUBEP for contraindications to bleomycin/mediastinal GCT.
2. Evidence of resistance to induction:
 - a) Persistent markers
 - b) Viable pathology
 - c) Relapse post chemo

TESTS

- Repeat abnormal tests every 3 weeks (scans optional)
- Prior to each cycle: CBC and diff, platelets, creatinine, sodium, potassium, magnesium, albumin, hematuria, AFP, serum hCG, mental status, random glucose.
- Urine dipstick pre-treatment and once daily during chemotherapy. If positive, notify MD - see supportive care protocol – SCMESNA
- Daily weight, input/output, vital signs every 8 hrs while admitted.
- Repeat CBC, diff, platelets and creatinine on day 5.
- CBC, differential, platelets days 10 and 14

PREMEDICATIONS:

- Antiemetic protocol for highly emetogenic chemotherapy protocols (see SCNAUSEA).
- hydrocortisone and diphenhydramine for history of hypersensitivity to etoposide

TREATMENT

Cycle length three weeks

Hour	Agents	Days				
		1	2	3	4	5
0 to 1.0	etoposide 75 mg/m ² IV in 500 mL NS over 1 hour (use non-DEHP equipment with 0.22 micron or smaller in-line filter)	x	x	x	x	x
1.0 to 1.5	CISplatin 20 mg/m ² IV in 250 mL NS over 30 min	x	x	x	x	x
1.5 to 1.75	mesna 300 mg/m ² IV in 100 mL D5W over 15 min	x	x	x	x	
2 to 3	ifosfamide 1500 mg/m ² IV in 500 mL D5 ½ NS over 1 hour	x	x	x	x	
7	mesna 300 mg/m ² IV in 100 mL D5W over 15 min	x	x	x	x	
11	mesna 300 mg/m ² IV in 100 mL D5W over 15 min	x	x	x	x	
	<u>OR</u> Mesna 720 mg/m ² PO in carbonated beverage at Hour 5 and 9 (ie, 2 and 6 hours after the Ifosfamide)	x	x	x	x	

Hydration at discretion of the oncologist.

SUPPORT MEDICATION

furosemide 20 mg IV for urine output less than 500 mL over 4 hours

Optional: cotrimoxazole DS 1 PO BID x 10 days to start on Day 10.
OR If allergic, use ciprofloxacin 500 mg PO BID x 10 days to start on day 10.
OR filgrastim (G-CSF) support to avoid dose reductions or delays.

DOSE MODIFICATIONS

Serum creatinine greater than 200 micromol/L:	prehydrate reduce ifosfamide by 25%
Serum creatinine greater than 300 micromol/L:	reduce CISplatin by 25% reduce ifosfamide by 33%
Neutropenic fever:	reduce etoposide by 25%

- Delay one week if ANC less than $0.5 \times 10^9/L$ or platelets less than $50 \times 10^9/L$.
- Filgrastim (G-CSF) may be used for febrile neutropenia. Refer to Pharmacare Guidelines.

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. Avoid aminoglycosides.
4. **Renal Toxicity:** Nephrotoxicity is common with CISplatin. Encourage oral hydration. Avoid nephrotoxic drugs such as aminoglycoside antibiotics.

Contact Dr. Christian Kollmannsberger, Dr. Bernie Eigl or tumour group delegate at (604) 877-2730 or 1-800-663-3333 with any problems or questions regarding this treatment program.

References:

Loehrer PJ, Lauer R, Roth BJ, et al. Salvage therapy in recurrent germ cell cancer: ifosfamide and cisplatin plus either vinblastine or etoposide. *Ann Int Med* 1988;109:540-6.