BC Cancer Protocol Summary for Treatment of Locally Advanced Bladder Cancer with Weekly CISplatin and Concurrent Radiation

Protocol Code: *GUBPWRT*

Tumour Group: *Genitourinary*

Contact Physician: *Dr. Kim Chi*

ELIGIBILITY:
- Locally advanced bladder cancer being treated with radical (curative intent) or radiotherapy intending to improve local control in a high grade palliative setting.
- Transitional or squamous bladder cancer
- Stages T3 or T4 (any NM)
- Requiring radical or palliative radiation
- Unsuitable for either GUAVPG, or GUBP (biweekly CISplatin with radiation)
- Serum creatinine less than 140 micromol/L (see Dose Modifications section)
- Hearing function risk judged acceptable by patient and physician.

EXCLUSIONS:
- Contraindication to CISplatin (e.g. deafness, intolerance to fluid load, neuropathy)
- Small cell component in pathology
- ECOG status greater than or equal to 3
- Macroscopic disease outside the radiotherapy volume

TESTS:
Baseline and before each treatment (on treatment day or within two previous days, attempt to coordinate with routine radiation therapy tests):
- CBC (with platelets) & diff, creatinine, electrolytes

PREHYDRATION:
1000 mL NS with potassium chloride 20 mEq and magnesium sulfate 2 g over 2 hours, prior to CISplatin

ANTIEMETICS:
As per highly emetogenic protocol

TREATMENT:
Note: Since CISplatin is used in this protocol as a radio-sensitizing agent, it is to be administered weekly on day 1 or 2 of each week of radiation therapy. Radiation should start after CISplatin infusion is completed (no specific timeframe after CISplatin infusion). If radiation therapy is cancelled on the CISplatin day, do not give CISplatin that day; postpone until radiation therapy resumes.
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Drug	Dose	BC Cancer Administration Guidelines
CISplatin	40 mg/m^2	IV in 500 mL NS with mannitol 30 g and magnesium sulfate 2 g, over 1 hour

Repeat weekly x 5 to 7 cycles (also see under **RADIATION THERAPY**).
No post-hydration.

ANTI-EMETICS POST-CISPLATIN:

- dexamethasone 4 mg PO 12 hours after CISplatin, then 4 mg PO q12h x 2 days (3 days if necessary)
- dimenhyDRINATE 50 to 100 mg PO q4h prn
- LORazapem1 mg SL q3-4h prn
- prochlorperazine 10 mg PO q3h prn

DOSE MODIFICATIONS:

1. **Hematological:**

ANC (x 10^9/L)		Platelets (x 10^9/L)	Dose
greater than or equal to 0.8	and	greater than or equal to 80	100%
less than 0.8	or	less than 80	*Consider 50% dose reduction or delay*

2. **Renal dysfunction:**

Creatinine Clearance (mL/min)	Dose
less than 50 mL/min	Delay chemotherapy, recheck in 1 week
less than 50 mL/min after overnight hydration	Discontinue protocol

RADIATION THERAPY:
Radiation schedule must be greater than a 2 week course.

PRECAUTIONS:

1. **Renal Toxicity:** Nephrotoxicity is common with CISplatin. Encourage oral hydration. Avoid nephrotoxic drugs such as aminoglycosides.
2. **Neutropenia**: Fever or other evidence of infection must be assessed promptly and treated aggressively.

Call Dr. Kim Chi or tumour group delegate at (604) 877-6000 or 1-800-633-3333 with any problems or questions regarding this treatment program.

References:

1. Coppin CML, Gospodarowicz MK, James K, et al. Improved local control of invasive bladder cancer by concurrent cisplatin and preoperative or definitive radiation. J Clin Oncol 1996;14:2901-7.
2. Thomas GN. Improved treatment for cervical cancer – concurrent chemotherapy and radiotherapy. N Engl J Med 1999;340:1198-200.
3. Keyes H, Bundy B, Stehman F, et al. Cisplatin, radiation, and adjuvant hysterectomy compared with radiation and adjuvant hysterectomy for bulky stage 1B cervical carcinoma. N Engl J Med 1999;340:1154-61.