

BCCA Protocol Summary for Treatment of Locally Advanced Bladder Cancer Using Concurrent Cisplatin with Radiation

Protocol Code:	<i>GUBPRT</i>
Tumour Group:	<i>Genitourinary</i>
Contact Physician:	<i>Dr. Nevin Murray</i>

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 cell or squamous pathology.
- Creatinine clearance greater than or equal to 50 mL/min.
- 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

OPTIONAL PREHYDRATION:

- 1000 mL 2/3 D5W-1/3 NS with 20 mEq potassium chloride and 2 g magnesium sulfate over 1 hour, before cisplatin.

PREMEDICATIONS:

- ondansetron 8 mg PO 30 minutes prior to cisplatin
- dexamethasone 8 mg PO 30 minutes prior to cisplatin

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.

Drug	Dose	BCCA Administration Guidelines
Cisplatin	40 mg/m ²	IV in 500 mL NS with 30 g mannitol and 2 g magnesium sulfate, over 1 hour

Repeat weekly x 5-7 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 50-100 mg PO q4h prn
- lorazepam 1 mg SL q3-4h prn
- prochlorperazine 10 mg PO q3h prn

DOSE MODIFICATIONS:**Hematologic:**

ANC greater than or equal to 0.8	Proceed with treatment
ANC less than 0.8	Consider dose reduction or delay

Renal Impairment:

Creatinine clearance less than or equal to 50 mL/min	Hydrate with 2/3 D5W-1/3NS and 20 mEq KCl/L at 125 mL/hr overnight, repeat creatinine in a.m.
Serum creatinine less than or equal to 50 mL/min following 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. Nevin Murray or tumour group delegate at (604) 877-6000 or 1-800-663-3333 with any problems or questions regarding this treatment program.

Date activated:	1 Jul 2007 (as GUBRADC)
Date revised:	1 June 2011 (Infusion section revised)

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* 14:2901-7, 1996
2. 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. *NEJM* 340:1154-1161, 1999