

BCCA Protocol Summary for Curative Combined Modality Therapy for Carcinoma of the Anal Canal using Mitomycin, Infusional Fluorouracil and Radiation Therapy

Protocol Code:

GIFUART

Tumour Group:

Gastrointestinal

Contact Physician:

GI Systemic Therapy

ELIGIBILITY:

- Squamous cell or Cloacogenic carcinoma of the anal canal
- T any, N any, MO

EXCLUSIONS:

- Uncontrolled high blood pressure, unstable angina, symptomatic congestive heart failure, myocardial infarction within the preceding 6 months, serious uncontrolled cardiac dysrhythmia
- Inadequate hepatic function (total bilirubin >35µmol/L, AST >3x normal)

TESTS:

- Baseline: CBC, diff and platelets, bilirubin, creatinine
- During treatment: CBC, diff and platelets, weekly before chemotherapy & during radiation therapy
- If indicated clinically: bilirubin, creatinine

PREMEDICATIONS:

- Treatment is high to moderately emetogenic. See SCNAUSEA protocol.

TREATMENT:

Note that radiation therapy may be given as a split-course (Option 1) or as a continuous course (Option 2) The dose of chemotherapy is not altered, but the timing differs (see below)

Drug	Dose/m ²	BCCA Administration Guideline
Mitomycin	10 mg/m ² on Day 1 (Maximum dose = 20 mg)	IV push
Fluorouracil	1000 mg/m ² /day for 4 days (total dose = 4000 mg/m ² over 96 h)	IV in D5W to a total volume of 192 mL by continuous infusion at 2 mL/h via appropriate infusor device*

*Inpatients: 1000 mg/m²/day in 1000 mL D5W by continuous infusion daily over 24 h for 4 days

Patients with PICC lines should have a weekly assessment of the PICC site for evidence of infection or thrombosis.

OPTION 1: FOR SPLIT-COURSE RADIOTHERAPY**:

Chemotherapy commences the first week of radiation therapy and is repeated 42 days (six weeks) later, concomitant with first week of radiation therapy resumption. (2 cycles total)

Course	1			BREAK			2		
Week	1	2	3	4	5	6	7	8	9
Radiation therapy**	x	x	(x)				x	x	(x)
Chemotherapy	x						x		

** Radiation therapy: 5000 cGy in a split course ie, 2500 cGy in 12 fractions (over 2 and ½ weeks) during Weeks 1-3 and during Weeks 7-9 after a 3 and ½ week break. Chemotherapy begins on Day 1 of each radiation therapy course.

OPTION 2: FOR CONTINUOUS COURSE RADIATION THERAPY**

Chemotherapy commences the first week of radiation therapy and is repeated 35 days (5 weeks) later, concomitant with the 6th week of radiation therapy (2 cycles total)

Week	1	2	3	4	5	6
Radiation therapy**	x	x	x	x	x	x
Chemotherapy	x					x

** Radiotherapy: 5400 cGy in 30 fractions (over 6 weeks)
Chemotherapy begins on Day 1 of Week 1 and Week 6

DOSE MODIFICATIONS:

1. Hematological

ANC (x 10 ⁹ /L)		Platelets (x 10 ⁹ /L)	Dose (both drugs)
> 1.5	and	> 100	100%
< 1.5	or	< 100	delay treatment

- Renal dysfunction:** Dose modification required for mitomycin if severe renal dysfunction (creatinine clearance <12 mL/min) (BCCA Cancer Drug Manual).
- Hepatic dysfunction:** Omit fluorouracil if bilirubin >85 umol/L unless secondary to biliary obstruction (BCCA Cancer Drug Manual).

PRECAUTIONS:

- Extravasation:** Mitomycin causes pain and tissue necrosis if extravasated out of vein. Refer to BCCA Extravasation Guidelines.
- Neutropenia:** Fever or other evidence of infection must be assessed promptly and treated aggressively. CBC should be checked 4-6 weeks post chemotherapy to verify that blood counts have returned to normal.
- Hemolytic Uremic Syndrome:** A syndrome of microangiopathic hemolytic anemia, thrombocytopenia, renal failure and hypertension has occurred in some patients receiving mitomycin in combination with fluorouracil. Patients treated for 6-12 months, and to cumulative doses of Mitomycin > 50 mg/m² are at greatest risk.

Call the GI Systemic Therapy physician at your regional cancer centre or Dr. Hagen Kennecke at (604) 877-6000 or 1-800-663-3333 with any problems or questions regarding this treatment program.

Date activated: N/A (as GIFUA)

Date revised: 01 Mar 2008 ([administration of fluorouracil infusion revised](#))

REFERENCES:

- Vuong, Te et al. Conformal Therapy Improves the Therapeutic Index of Patients with Anal Canal Cancer Treated with Combined Chemotherapy and External Beam Radiotherapy. Int J Radiation Oncology Biol Phys 2007;67(5):1394-1400.