BCCA Protocol Summary for Palliative Therapy for Advanced Breast Cancer using Cyclophosphamide, Methotrexate and Fluorouracil

Protocol Code: *BRAVCMF*

Tumour Group: *Breast*

Contact Physician: *Dr. Susan Ellard*

ELIGIBILITY:

- Palliative treatment for advanced breast cancer.

TESTS:

- Baseline: CBC & diff, platelets, bilirubin, AST, creatinine
- Before each treatment: CBC & diff, platelets
- If clinically indicated: bilirubin, AST, creatinine

PREMEDICATIONS:

- Antiemetic protocol for High/Moderate emetogenic chemotherapy (see protocol SCNAUSEA)

TREATMENT:

Drug	Dose	BCCA Administration Guideline
cyclophosphamide	600 mg/m^2	IV in 100 to 250 mL NS over 20 min to 1 hour
methotrexate	40 mg/m^2	IV push
fluorouracil (5-FU)	600 mg/m^2	IV push

Repeat every 21 days x 6-8 cycles.

DOSE MODIFICATIONS:

1. Hematological:

ANC (x10^9/L)	Platelets (x10^9/L)	Dose (all drugs)
greater than or equal to 1.5	greater than or equal to 90	100%
1 to 1.49	70 to 89	75%
less than 1.0	less than 70	delay

2. Renal dysfunction:

For Methotrexate

BC Cancer agency Cancer Drug Manual© suggested dose modifications:

Creatinine clearance (mL/min)	Methotrexate dose
61 to 80	75%
51 to 60	70%
10 to 50	30 to 50%
less than 10	avoid

$$\text{Calculated creatinine clearance} = \frac{N \times (140 - \text{Age}) \times \text{weight (kg)}}{\text{Serum Creatinine in micromol/L}}$$

N for Males = 1.23, Females = 1.04

For Cyclophosphamide:

BC Cancer agency Cancer Drug Manual© suggested dose modifications:

Creatinine clearance (mL/min)	Cyclophosphamide dose
greater than or equal to 10	100%
less than 10	75%

3. Hepatic dysfunction:

For Methotrexate:

Bilirubin (micromol/L)		AST (units/L)	Methotrexate Dose
less than 50		less than 180	100%
50 to 85	or	greater than 180	75%
greater than 85			Omit dose

For 5-Fluorouracil

Bilirubin (micromol/L)	Fluorouracil Dose
greater than 86	Omit dose

4. Third space fluids (ascites, pleural effusions): omit methotrexate

PRECAUTIONS:

1. **Neutropenia**: Fever or other evidence of infection must be assessed promptly and treated aggressively.
2. **Possible drug interactions with fluorouracil and warfarin, phenytoin and fosphenytoin** have been reported and may occur at any time. Close monitoring is recommended (eg, for warfarin, monitor INR weekly during fluorouracil therapy and for 1 month after stopping fluorouracil).
3. **Myocardial ischemia and angina occurs rarely in patients receiving fluorouracil or capecitabine.** Development of cardiac symptoms including signs suggestive of ischemia or of cardiac arrhythmia is an indication to discontinue treatment. If there is development of

cardiac symptoms patients should have urgent cardiac assessment. Generally re-challenge with either fluorouracil or capecitabine is not recommended as symptoms potentially have a high likelihood of recurrence which can be severe or even fatal. Seeking opinion from cardiologists and oncologists with expert knowledge about fluorouracil or capecitabine toxicity is strongly advised under these circumstances. The toxicity should also be noted in the patient's allergy profile.

4.

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

Date activated: N/A
Date revised: 1 May 2013 (cardiac toxicity updated)