BCCA Protocol Summary for Adjuvant Therapy for Breast Cancer Using Cyclophosphamide, Doxorubicin, Fluorouracil and Filgrastim (G-CSF)

Protocol Code: *BRAJCAFG*

Tumour Group: *Breast*

Contact Physician: *Dr. Susan Ellard*

ELIGIBILITY:
- women requiring filgrastim (G-CSF) support in order to complete protocol BRAJCAFPO

EXCLUSIONS:
- Congestive heart failure (LVEF less than 45%) or other significant heart disease

TESTS:
- Before each treatment (Day 1 and 15): CBC & diff, platelets
- If clinically indicated: bilirubin, creatinine, MUGA scan or echocardiogram

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

TREATMENT:

Drug	Dose	BCCA Administration Guideline
doxoubicin (ADRIAMYCIN®)	30 mg/m^2 Days 1 and 15	IV push
fluorouracil (5-FU)	500 mg/m^2 Days 1 and 15	IV push
cyclophosphamide	700 mg/m^2 Days 1 and 15	IV in 100 to 250 mL NS or D5W over 20 min to 1 hour*
filgrastim (G-CSF)	5 mcg/kg/day Days 2-13 and Days 16-27 (or adjust as needed**)	SC

*Use 250 mL for doses greater than 1000 mg
** reduce filgrastim treatment duration if ANC greater than 10 or intolerable bone pain.

- Repeat every 28 days x 6 cycles total, including BRAJCAFPO cycles
- If radiation therapy is required, it is given following completion of chemotherapy (BCCA Cancer Management Manual).

DOSE MODIFICATIONS

1. Hematological

Day 1:

- Delay until ANC greater than or equal to 1.5 and platelets greater than or equal to 100.

Day 15:

ANC (x 10^9/L)		Platelets (x 10^9/L)	% of Day 1 Current Cycle Dose (All Drugs)
greater than or equal to 1.5	and	greater than or equal to 100	100%
1 – 1.49	and	greater than or equal to 100	75%
less than 1	or	less than 100	Omit Day 15 for current cycle only

Note: If there is full hematological recovery (ANC greater than or equal to 1.5, platelets greater than or equal to 100) on Day 1 in subsequent cycles, re-escalation to 100% on Day 15 with filgrastim (G-CSF) support may be attempted at the physician's discretion.

2. **Hepatic dysfunction:** Dose modifications required for doxorubicin and fluorouracil (see BCCA Cancer Drug Manual).
3. **Renal dysfunction:** Dose modification may be required for cyclophosphamide (see BCCA Cancer Drug Manual).

PRECAUTIONS:

1. **Extravasation**: Doxorubicin causes pain and tissue necrosis if extravasated. Refer to BCCA Extravasation Guidelines.
2. **Neutropenia**: Fever or other evidence of infection must be assessed promptly and treated aggressively.
3. **Cardiac Toxicity**: Clinical cardiac assessment is required prior to CAF-G if cardiac function is equivocal and recommended at any time if clinically indicated with a formal evaluation of LVEF (MUGA scan or ECHO).
4. **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).

Contact Dr. Susan Ellard or tumour group delegate at (250) 712-3900 or 1-888-563-7773 with any problems or questions regarding this treatment program.

Date activated: 1 Jan 2004

Date revised: 01 June 2011 (Infusion section revised)

REFERENCES:

1. Hutchins L, Green S, Ravdin P, et al. CMF versus CAF with and without tamoxifen in high-risk node-negative breast cancer patients and a natural history follow-up study in low-risk node-negative patients: first results of intergroup trial INT 0102. Proc Am Soc Clin Oncol 1998;17:1a (abstr 2).

2. Albain K, Green S, Osborne K, et al. Tamoxifen (T) versus cyclophosphamide, Adriamycin® and 5-FU plus either concurrent or sequential T in postmenopausal, receptor(+), node(+) breast cancer: a Southwest Oncology Group phase III intergroup trial (SWOG-8814, INT-0100). Proc Am Soc Clin Oncol 1997;16:128a (abstr 450).

3. Albain K, Green S, Ravdin P, et al. Overall survival after cyclophosphamide, Adriamycin, 5-FU, and tamoxifen (CAFT) is superior to T alone in postmenopausal, receptor(+), node(+) breast cancer: new findings from phase III Southwest Oncology Group intergroup trial S8814 (INT-0100). Proc Am Soc Clin Oncol 2001;20:24a (abstr 94).