BC Cancer Protocol Summary for First or Second Line Therapy for Invasive Epithelial Ovarian Cancer using Single-Agent CARBOplatin

Protocol Code	*GOOVCARB*
Tumour Group	*Gynecology*
Contact Physician	*Dr. Ursula Lee*

ELIGIBILITY:

- patients receiving first line adjuvant treatment for epithelial ovarian carcinoma, primary peritoneal carcinoma, or primary fallopian tube carcinoma who are intolerant of taxanes.
- recurrent, platinum-sensitive, invasive epithelial ovarian carcinoma, fallopian tube carcinoma, primary peritoneal carcinoma, cervical carcinoma, or endometrial carcinoma
- continuing clinical or tumour marker improvement after 6 cycles of CARBOplatin-PACLItaxel therapy

EXCLUSIONS:

- disease progression while receiving platinum-based chemotherapy
- relative contraindication: disease recurrence less than 6 months after completing platinum-based chemotherapy

TESTS:

- Baseline: CBC & diff, creatinine, CA 125 tumor marker. If clinically indicated: Alk Phos, ALT, bilirubin
- Day 14 and 21 after 1st cycle (and in subsequent cycles if dose-modifications made): CBC & diff; once nadir pattern established, check CBC at that point only
- Before each treatment: CBC & diff, creatinine, any initially elevated tumour marker
- If clinically indicated: ALT, Alk Phos, bilirubin, LDH, protein level, albumin, GGT

PREMEDICATIONS:

- Antiemetic protocol for highly emetogenic chemotherapy protocols (see SCNAUSEA)

TREATMENT:

Drug	Dose	BC Cancer Administration Guideline
CARBOplatin	Dose = AUC* x (GFR+25)	IV in 100 to 250 mL NS over 30 minutes

*AUC =6; if extensive prior radiation therapy, significant cytopenia with prior therapy, or age greater than 80, use AUC=5.

Measured GFR (e.g. nuclear renogram) is preferred whenever feasible, *particularly* in circumstances of co-morbidity that could affect renal function (third-space fluid accumulations, hypoproteinemia, potentially inadequate fluid intake, etc.). The lab reported GFR (MDRD formula) may be used as an alternative to the Cockcroft-Gault estimate of GFR; the estimated GFR reported by the lab or calculated using the Cockcroft-Gault equation should be capped at 125 mL/min when it is used to calculate the initial CARBOplatin dose. When a nuclear renogram is available, this clearance would take precedence.

Cockcroft-Gault Formula

$$GFR = \frac{1.04 \times (140 - \text{age in years}) \times \text{wt (kg)}}{\text{serum creatinine (micromol/L)}}$$

Note: The *same* method of estimation should be used throughout the treatment course (i.e. if lab reported GFR was used initially, this should be used for dosing in all subsequent cycles and not the Cockcroft-Gault estimate).

Repeat every 28 days until disease progression (usual treatment 6 to 9 cycles).

DOSE MODIFICATIONS:

NOTE: Use GFR to determine initial dose, base subsequent doses according to the following:

1. **Hematological**

On treatment day:

ANC ($x10^9$/L)		Platelets ($x10^9$/L)	Dose
greater than or equal to 1.0	**AND**	greater than or equal to 100	100%
less than 1.0	**OR**	less than 100	delay 1 week or until recovery

At nadir:

ANC (x 10^9/L)		Platelets (x 10^9/L)	CARBOplatin
greater than or equal to 0.5	and	greater than or equal to 75	100%
less than 0.5	and	less than 75	80%
less than 0.5	and	greater than or equal to 75	100%
greater than or equal to 0.5	and	less than 75	80%
Febrile neutropenia at any time			80%

2. Renal dysfunction: Use nuclear renogram or predictive formula to calculate cycle 1 dose, as detailed above. Consider re-calculation of dose if serum creatinine changes ± 20% from baseline.

3. Neutropenic fever: If febrile neutropenia occurs at any point during treatment, reduce subsequent CARBOplatin doses to 80%.

PRECAUTIONS:

1. **Neutropenia**: Fever or other evidence of infection must be assessed promptly and treated aggressively.
2. **Hypersensitivity**: Reactions to CARBOplatin may develop in patients who have been extensively pre-treated with this agent. Refer to BC Cancer Hypersensitivity Guidelines.

Call Dr. Ursula Lee or tumour group delegate at (604) 930-2098 with any problems or questions regarding this treatment program.

References:

Markman, M., Kennedy A, Webster K et al. Clinical features of hypersensitivity reactions to carboplatin. J Clin Oncol 1999;17:1141.