BC Cancer Protocol Summary for Treatment of Relapsed/Progressing Epithelial Ovarian, Primary Peritoneal, or Fallopian Tube Carcinoma Using Gemcitabine

Protocol Code	*GOOVGEM*
Tumour Group	*Gynecologic Oncology*
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PREFACE:

- In platinum sensitive disease: patients should be considered for doublet therapy consisting of carboplatin plus either a taxane or gemcitabine or DOXOrubicin pegylated liposomal (e.g., GOOVCATR, GOOVCAD, GOOVCAG, GOOVPLDC)
- In platinum resistant disease (i.e., cancer progresses within six months of completing a platinum-containing treatment protocol): patients will ideally receive single agent carboplatin, as it is the least toxic and most convenient choice of the equally efficacious agents available (i.e., GOOVCARB)
- In platinum refractory disease (i.e., cancer progresses while being treated with a platinum) choose between available agents based upon toxicity profile and convenience of dosing regimen. Options include: GOOVTOP, GOOLDOX, GOOVGEM, GOOVETO, GOOVVIN, GOOVTAX3, GOOVDOC.
- Patients who will not benefit from further therapy after second or subsequent rounds of chemotherapy can be identified by the following formula: "day 1 of treatment N to day of progression on treatment N+1 is less than or equal to 6 months." They should be offered symptomatic management or investigational protocols.

ELIGIBILITY:

- Platinum refractory ovarian, primary peritoneal or Fallopian tube carcinoma
- Platinum resistant ovarian, primary peritoneal or Fallopian tube carcinoma in cases where patient-specific concerns dissuade the clinician from selecting single-agent carboplatin
- Platinum sensitive ovarian, primary peritoneal or Fallopian tube carcinoma in cases where actual or potential toxicity precludes the use of carboplatin or cisplatin alone or in combination with a taxane or gemcitabine.
- Adequate hematologic, liver and cardiac function
- PS ECOG 3 or better

TESTS:

- Mandatory Baseline tests: CBC, including differential and platelets, creatinine
- Suggested Baseline tests: appropriate tumour markers and imaging study
- In Cycle 1 and in any Cycle in which a dose change has been made: Before treatment on days 1, 8, and 15: CBC, including differential and platelets
- In Cycle 2 and subsequent cycles when no dose change has been made: Before treatment on day 1 only: CBC, including differential and platelets
- Appropriate tumour markers and imaging studies should be repeated as necessary

PREMEDICATIONS:

- Antiemetic protocol for chemotherapy with low to low-moderate emetogenicity (see SCNAUSEA)

TREATMENT:

Drug	Dose	BC Cancer Administration Guideline
gemcitabine	800 mg/m^2 on day 1, 8, and 15	IV in 250 mL NS over 30 minutes

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

DOSE MODIFICATIONS:

1. **Hematology**: on day 1 in any cycle; and on day 1, 8 and 15 in cycle 1 and in all cycles in which a dose change has been made

ANC (x 10^9/L)		Platelets (x 10^9/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	*If day 1*: delay until recovery, then proceed at reduced dose of 700 mg/m^2.
			If day 8: omit dose. If counts recover by day 15 proceed at reduced dose of 700 mg/m^2.
			If day 15: omit dose. Proceed at reduced dose of 700 mg/m^2 with next cycle.

Note: If a recurrence of hematologic count problems occurs despite dose reduction to 700 mg/m^2: either (i) discontinue gemcitabine if regimen had been day 1 and 8 only, or day 1 & 15 only; or, (ii) change to day 1 and 8 only, or day 1 and 15 only, if regimen had been day 1, 8 and 15.

2. **Febrile Neutropenia:** decrease subsequent doses to 700 mg/m^2. If a recurrence of febrile neutropenia occurs despite dose reduction to 700 mg/m^2: either (i) discontinue gemcitabine if regimen had been day 1 and 8 only, or day 1 & 15 only; or, (ii) change to day 1 and 8 only, or day 1 and 15 only, if regimen had been day 1, 8 and 15.

3. **Pneumonitis**: discontinue gemcitabine if pneumonitis occurs

4. **Non–Hematologic Toxicities**: may include
   - Mucositis
   - Transient truncal rash
   - Fatigue
   - For Grade 3 toxicity, delay treatment until resolution of symptoms, then resume at 700 mg/m^2. If dose already reduced, switch to day 1 and 8 only or day 1 and 15 only. If Grade 3 toxicity persists, discontinue gemcitabine.
   - For Grade 4 toxicity, discontinue treatment.
   - Doses reduced for toxicity should not be re-escalated.

PRECAUTIONS:

1. **Neutropenia**: Fever or other evidence of infection must be assessed promptly and treated aggressively.
2. **Renal Dysfunction**: Irreversible renal failure associated with hemolytic uremic syndrome may occur (rare). Use caution with pre-existing renal dysfunction.
3. **Pulmonary Toxicity**: Acute shortness of breath may occur. Discontinue treatment if drug-induced pneumonitis is suspected.
4. **Fever and Flu-like Symptoms**: may commonly occur (fever 37%, flu-like symptoms 19%). Use acetaminophen as necessary for comfort.
5. **Drug Interaction** – **warfarin**: gemcitabine may cause increased anticoagulant effect of warfarin. Monitor INR carefully during and for 1 to 2 months after gemcitabine therapy; adjust warfarin dose as necessary.

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