BC Cancer Protocol Summary for Adjuvant Chemotherapy for Pancreatic Adenocarcinoma Using Gemcitabine

Protocol Code	*GIPAJGEM*
Tumour Group	*Gastrointestinal*
Contact Physician	*GI Systemic Therapy*

ELIGIBILITY:
- Pancreatic adenocarcinoma
- Node-positive margin-negative ampullary cancer (cancers of the gall bladder, and biliary system excluded)
- Macroscopic complete resection
- ECOG 0 to 2

CAUTIONS:
- Adequate marrow reserve, renal and liver function

TESTS:
- Baseline: CBC, diff and platelets; creatinine, bilirubin, appropriate tumour markers and imaging study
- Prior to each treatment: CBC, diff and platelets
- If clinically indicated: bilirubin, creatinine

PREMEDICATIONS:
- Antiemetic protocol for non-emetogenic chemotherapy (see SCNAUSEA).

TREATMENT:

Cycle	Drug	Dose	BC Cancer Administration Guideline
1 to 6	gemcitabine	1000 mg/m^2 /week x 3 weeks then 1 week rest (4 weeks = 1 cycle)	IV in 250 mL NS over 30 minutes

Repeat every 4 weeks x 6 cycles.

DOSE MODIFICATIONS:

1. Hematology – On Treatment Day

ANC (x 10^9/L)		Platelets (x 10^9/L)	Dose
greater than 1	and	greater than 100	100%
0.5 to 1	or	50 to 100	75% or delay, based on clinical assessment
less than 0.5	or	less than 50	delay

2. Non – Hematologic Toxicities

Grade	Stomatitis	Diarrhea	Dose
1	Painless ulcers, erythema or mild soreness	Increase of 2 to 3 stools/day or mild increase in loose watery colostomy output	100%
2	Painful erythema, edema, or ulcers but can eat	Increase of 4 to 6 stools, or nocturnal stools or mild increase in loose watery colostomy output	Omit until toxicity resolved then resume at 100%
3	Painful erythema, edema, or ulcers and cannot eat	Increase of 7 to 9 stools/day or incontinence, malabsorption; or severe increase in loose watery colostomy output	Omit until toxicity resolved then resume at 75%
4	Mucosal necrosis, requires parenteral support	Increase of 10 or more stools/day or grossly bloody diarrhea, or grossly bloody colostomy output or loose watery colostomy output requiring parenteral l support; dehydration	Omit until toxicity resolved then resume at 50%.

- Doses reduced for toxicity should not be re-escalated.
- If doses must be omitted for Grade 2 toxicity twice in previous cycles, then commence next cycle at 75% dose when treatment is resumed.

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. **Drug Interaction**: Possible interaction between gemcitabine and warfarin has been reported and may occur at any time. Close monitoring is recommended (monitor INR weekly during gemcitabine therapy and for 1 to 2 month after discontinuing gemcitabine treatment).

Call the GI Systemic Therapy physician at your regional cancer centre or the GI Systemic Therapy Chair Dr. Theresa Chan at (604) 930-2098 with any problems or questions regarding this treatment program.

References:

1. Oettle H, Post S, Neuhaus P, et al. Adjuvant chemotherapy with gemcitabine vs observation in patients undergoing curative-intent resection of pancreatic cancer: a randomized controlled trial. JAMA 2007; 297: 267-77.
2. Neuhaus P, Riess H, Post S, et al. CONKO-001: Final results of the randomized, prospective, multicentre phase III trial of adjuvant chemotherapy with gemcitabine versus observation in patients with resected pancreatic cancer (PC). J Clin Oncol 2008; 26 (May 20 suppl; abstr LBA4504).
3. Neoptolemos JP. Ampullary cancer ESPAC-3 (v2) trial: A multicenter, international, open-label, rondaomized controlled phase III trial of adjuvant chemotherapy verseus observation in patients with adenocarcinoma of the ampulla of vater. J Clin Oncol 20:2011 (suppl; abstr LBA4006)