

BC Cancer Protocol Summary for Palliative Therapy for Pancreatic Endocrine Tumours using Streptozocin and DOXOrubicin

Protocol Code

GIENDO2

Tumour Group

Gastrointestinal

Contact Physician

GI Systemic Therapy

ELIGIBILITY:

Patients must have:

- Metastatic or unresectable endocrine tumour of pancreas
- Approval from the Health Canada Special Access Programme needed for streptozocin

Patients should have:

- ECOG 0 to 2

Note: Patients are treated preferentially with GIAVTZCAP

EXCLUSIONS:

Patients must not have:

- History of cardiac disease or evidence of cardiac dysfunction
- Bilirubin greater than 50 micromol/L

TESTS:

- Baseline: CBC & Diff, creatinine, ALT, alkaline phosphatase, total bilirubin, albumin, sodium, potassium, random glucose, DPYD test (not required if previously tested, or tolerated fluorouracil or capecitabine)
- Baseline if clinically indicated: 24-hour urine 5-HIAA, GGT, ECG
- Prior to treatment on Days 1 and 22: CBC & Diff, creatinine, total bilirubin, ALT
- If clinically indicated: alkaline phosphatase, albumin, GGT, sodium, potassium, 24-hour urine 5-HIAA, ECG
- For patients on warfarin, weekly INR during treatment until stable warfarin dose established, then INR prior to each cycle

PREMEDICATIONS:

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

TREATMENT:

Drug	Dose	BC Cancer Administration Guideline
streptozocin	500 mg/m ² /day x 5 days (Days 1 to 5)	IV in 100 mL NS over 15 minutes
DOXOrubicin*	50 mg/m ² /day on Days 1 and 22	IV push

* If fluorouracil is substituted for DOXOrubicin, use fluorouracil 400 mg/m²/day x 5 days (Days 1 to 5) IV push. See dose modification #4.

Repeat every 42 days x 3 to 6 cycles.

DOSE MODIFICATIONS:**Fluorouracil Dosing Based on DPYD Activity Score (DPYD-AS)**

Refer to “[Fluorouracil and Capecitabine Dosing Based on DPYD Activity Score \(DPYD-AS\)](http://www.bccancer.bc.ca/health-professionals/clinical-resources/cancer-drug-manual)” on www.bccancer.bc.ca/health-professionals/clinical-resources/cancer-drug-manual.

1. Hematological:

ANC (x 10 ⁹ /L)	Platelets (x 10 ⁹ /L)	Dose (all drugs)
Greater than or equal to 1.5	Greater than or equal to 100	100%
0.5 to less than 1.5	50 to less than 100	Delay
Less than 0.5	Less than 50	Delay then 75%

2. **Other toxicity:**

Grade	Stomatitis	Diarrhea	Dose Fluorouracil
Grade 1	Painless ulcers, erythema or mild soreness	Increase of 2-3 stools/day or nocturnal stools; or moderate increase in loose watery colostomy output	Delay until recovers, then 100%
greater than or equal to Grade 2	Painful erythema, edema, or ulcers but can eat	Increase of 4-6 stools, or nocturnal stools or moderate increase in loose watery colostomy output	Delay until recovers, then 80%
Grade	Uncontrolled Nausea or Vomiting		Dose Streptozocin
Greater than or equal to Grade 2	Greater than or equal to 2-5 episodes in 24 h		80%

3. **Renal dysfunction:** If serum creatinine greater than 150 micromol/L, dose modification for streptozocin may be required (see BC Cancer Drug Manual).

4. **DOXOrubicin and fluorouracil:**

Bilirubin (micromol/L)	Dose
25 to 50	50% DOXOrubicin
Greater than 50	Discontinue DOXOrubicin and consider substituting fluorouracil
Greater than 85	Discontinue fluorouracil

PRECAUTIONS:

- Cardiac Toxicity:** DOXOrubicin is cardiotoxic and must be used with caution, if at all, in patients with severe hypertension or cardiac dysfunction. Cardiac assessment recommended if dose of 450 mg/m² to be exceeded (lifelong). See BC Cancer Drug Manual.
- Extravasation:** DOXOrubicin and streptozocin cause pain and tissue necrosis if extravasated. See BC Cancer Extravasation Guidelines.
- Neutropenia:** Fever or other evidence of infection must be assessed promptly and treated aggressively.
- Renal Toxicity:** streptozocin is nephrotoxic particularly in combination with DOXOrubicin. Avoid nephrotoxic drugs such as aminoglycoside antibiotics. See BC Cancer Drug Manual.

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