STREPTOZOCIN Modified de Gramont

INDICATION (ICD10) M-8246/3

1. Neuroendocrine tumour (unlicensed indication)
PS 0, 1, 2

REGIMEN

Day 1 Prehydration sodium chloride 1000ml 0.9% IV infusion over 2 hours
STREPTOZOCIN* 1000mg/m^2 in 250ml sodium chloride 0.9% IV infusion over 1 hour
CALCIUM LEVOFOLINATE 175mg in glucose 5% infusion over 30 minutes
FLUOROURACIL 400mg/m^2 IV bolus
FLUOROURACIL 2800mg/m^2 continuous IV infusion over 46 hours

Day 8 Prehydration sodium chloride 1000ml 0.9% IV infusion over 2 hours
STREPTOZOCIN* 1000mg/m^2 in 250ml sodium chloride 0.9% IV infusion over 1 hour

*Named patient medicine
NB Calcium levofolinate is not the same as calcium folinate (calcium leucovorin).
Calcium levofolinate is a single isomer of folinic acid and the dose is generally half that of calcium folinate. If calcium levofolinate is not available calcium folinate (leucovorin) may be used instead.

CYCLE FREQUENCY AND NUMBER OF CYCLES

Every 14 days for 12 cycles may continue if tolerating well, and benefiting

ANTI-EMETICS

High risk days 1 and 8
Low risk day 2

CONCURRENT MEDICATION REQUIRED

Fluorouracil	Mouth and bowel support eg Loperamide, benzydamine mouthwash
Streptozocin	Ensure adequate hydration.

EXTRAVASATION AND TYPE OF LINE / FILTERS

Streptozocin – vesicant

Central line (single lumen)

INVESTIGATIONS

Blood results required before SACT administration
FBC, U&E and LFTs every cycle
Neutrophils x 10^9/L ≥1.5
Platelets x 10^9/L ≥100
Serum creatinine - GFR each cycle
DPD test
Baseline weight and every cycle

MAIN TOXICITES AND ADVERSE REACTIONS

Fluorouracil	Palmar plantar (handfoot syndrome) causing red palms and soles – treat with pyridoxine 50mg tds Diarrhoea – treat with loperamide or codeine Cardiotoxicity – monitor cardiac function. Special attention is advisable in treating patients with a history of heart disease, arrhythmias or angina pectoris or those who develop chest pain during treatment with fluorouracil. Stomatitis
Streptozocin	Burning along veins during rapid infusion Severe hyperglycaemia. Monitor BMs if signs of hyperglycaemia occur. Associated with renal tubule toxicity, hepatotoxicity and anaemia. Renal toxicity

INTERACTIONS WHICH MAY REQUIRE DOSE MODIFICATIONS
(not exhaustive list check SPC/BNF/Stockleys)

Fluorouracil	Cimetidine slightly increases exposure to fluorouracil Metronidazole increased toxicity Phenytoin concentration increased Warfarin
Streptozocin	Many interactions, check carefully

DOSE MODIFICATIONS
Hepatic impairment
Fluorouracil

Bilirubin >85micromol/L or ALT/AST >180	not recommended

Renal impairment
Streptozocin

CrCl >60ml/min	give 100% dose
CrCl 46-60ml/min	give 50% dose
CrCl 31-45ml/min	Evaluation of risk / benefit
CrCl <30ml/min	contraindicated

REFERENCES
1. Eriksson. B., Oberg. K. 1993 An update of medical treatment of malignant endocrine pancreatic tumours. Acta Oncol. 32: 203-208