North West Coast
Strategic Clinical Networks

Chemotherapy protocol

Drug regimen
Nab-Paclitaxel (Abraxane) / Gemcitabine

Indications for use
Metastatic pancreatic cancer

Regimen

DRUG	FLUID	TIME
Abraxane 125mg/m^2	N/A	30 mins
Gemcitabine 1000mg/m^2	250mls N/saline	30 mins

(Abraxane given first as may potentiate the action of Gemcitabine)
Weekly for 3 weeks followed by one week of rest
Continue until disease progression or unacceptable toxicity

Investigation prior to initiating treatment
FBC
U&E's - Serum creatinine within normal limits or calculated clearance ≥ 60 mL/min
LFTs – AST, ALT ≤2.5 × upper limit of normal range (ULN), unless liver metastases are clearly present, then ≤5 × ULN is allowed. Total Bilirubin ≤ ULN

Cautions
Neuropathy
The metabolism of paclitaxel is catalysed, in part, by cytochrome P450 isoenzymes CYP2C8 and CYP3A4. Therefore, caution should be exercised when administering paclitaxel concomitantly with medicines known to inhibit (e.g. ketoconazole and other imidazole antifungals, erythromycin, fluoxetine, gemfibrozil, cimetidine, ritonavir, saquinavir, indinavir, and nelfinavir)) or induce (e.g. rifampicin, carbamazepine, phenytoin, efavirenz, nevirapine) either CYP2C8 or CYP3A4.

Investigations and consultations prior to each cycle
FBC and U&E
LFTs
Consultation needed prior to each cycle
Assessment of response (CA19-9 or scan where indicated)

Acceptable limits for treatment to proceed (if outside these delay one week or contact consultant)
See under "Dose Modification Criteria" below

Side effects
Hypersensitivity reactions
Myalgia and arthralgia
Neuropathy
Alopecia
Rash
Nausea and vomiting
Bone marrow suppression
Diarrhoea

Gemcitabine - Myelosuppression – all cell lines
Occ: Rash and mild SOB, 'flu like' symptoms
Rarely: severe dyspnoea (ARDS), Haemolytic ureaemic syndrome; discontinue treatment if these occur

Dose Modification Criteria

Dose Level	Abraxane Dose (mg/m^2)	Gemcitabine Dose (mg/m^2)
Full dose	125	1000
1st dose level reduction	100	800
2nd dose level reduction	75	600
If additional dose reduction required	Discontinue treatment	Discontinue treatment

Cycle Day	Neutrophils 10^9/L		Platelets 10^9/L	Abraxane Dose	Gemcitabine Dose
Day 1	< 1.5	OR	< 100	Delay doses until recovery	
Day 8	≥ 0.5 but < 1.0	OR	≥ 50 but < 75	Reduce doses 1 dose level	
	< 0.5	OR	< 50	Withhold doses	
Day 15: IF Day 8 doses were given without modification:					
Day 15	≥ 0.5 but < 1.0	OR	≥ 50 but < 75	Treat with Day 8 dose level and follow with WBC Growth Factors OR Reduce doses 1 dose level from Day 8 doses	
	< 0.5	OR	< 50	Withhold doses	
Day 15: IF Day 8 doses were reduced:					
Day 15	≥ 1.0	AND	≥ 75	Return to the Day 1 dose levels and follow with WBC Growth Factors OR Treat with same doses as Day 8	
	≥ 0.5 but < 1.0	OR	≥ 50 but < 75	Treat with Day 8 dose levels and follow with WBC Growth Factors OR Reduce doses 1 dose level from Day 8 doses	
	< 0.5	OR	< 50	Withhold doses	
Day 15: IF Day 8 doses were withheld:					

Day 15	≥ 1.0	AND	≥ 75	Return to Day 1 dose levels and follow with WBC Growth Factors OR Reduce doses 1 dose level from Day 1 doses
	≥ 0.5 but < 1.0	OR	≥ 50 but < 75	Reduce 1 dose level and follow with WBC Growth Factors OR Reduce doses 2 dose levels from Day 1 doses
	< 0.5	OR	< 50	Withhold doses

Adverse Drug Reaction (ADR)	**Abraxane Dose**	**Gemcitabine Dose**
Febrile Neutropenia: Grade 3 or 4	Withhold doses until fever resolves and neutrophils ≥ 1.5; resume at next lower dose level	
Peripheral Neuropathy: Grade 3 or 4	Withhold dose until improves to ≤ Grade 1; resume at next lower dose level. Administer over 2 hours	Treat with same dose
Cutaneous Toxicity: Grade 2 or 3	Reduce to next lower dose level; discontinue treatment if ADR persists	
Gastrointestinal Toxicity: Grade 3 mucositis or diarrhoea	Withhold doses until improves to ≤ Grade 1; resume at next lower dose level	

Specific Information on Administration
Abraxane – administer via giving set with 15micron filter
Gemcitabine - 30-minute infusion in 0.9% Sodium Chloride 250mls (longer infusion times lead to increased toxicity)

THIS PROTOCOL HAS BEEN DIRECTED BY DR MITCHELL, CLINICIAN FOR UPPER GI CANCER

RESPONSIBILITY FOR THIS PROTOCOL LIES WITH THE HEAD OF SERVICE

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VERSION **3**