Chemotherapy Protocol

PANCREATIC CANCER

GEMCITABINE-PACLITAXEL ALBUMIN BOUND

Regimen

- Pancreatic Cancer – Gemcitabine-Paclitaxel Albumin Bound

Indication

- First line treatment of adult patients with metastatic adenocarcinoma of the pancreas
- WHO Performance status 0, 1

Toxicity

Drug	Adverse Effect
Gemcitabine	Diarrhoea, constipation, rash, respiratory problems (pneumonitis), influenza like symptoms, radiosensitising, transient elevation of LFTs
Paclitaxel Albumin Bound	Neuropathy, hypersensitivity, arthralgia, alopecia, rash

The adverse effects listed are not exhaustive. Please refer to the relevant Summary of Product Characteristics for full details.

Monitoring

Drugs

- FBC, U&E's and LFT's prior to each treatment (days 1, 8, 15).

Dose Modifications

The dose modifications listed are for haematological, liver and renal function only. Dose adjustments may be necessary for other toxicities as well.

In principle all dose reductions due to adverse drug reactions should not be re-escalated in subsequent cycles without consultant approval. It is also a general rule for chemotherapy that if a third dose reduction is necessary treatment should be stopped.

Please discuss all dose reductions / delays with the relevant consultant before prescribing, if appropriate. The approach may be different depending on the clinical circumstances. The following is a general guide only.

Haematological

Prior to prescribing cycle one the following criteria must be met.

Criteria	Eligible Level
Neutrophil	equal to or more than $1.5x10^9$/L
Platelets	equal to or more than $100x10^9$/L

Consider blood transfusion if patient symptomatic of anaemia or has a haemoglobin of less than 8g/dL

Table One - Dose level reductions

Dose Level	Paclitaxel Albumin Bound (mg/m2	Gemcitabine mg/m2
Full	125	1000
1st level reduction	100	800
2nd level reduction	75	600
If additional dose reduction required	Discontinue	Discontinue

Table Two - Dose modifications for neutropenia and/or thrombocytopenia at the start of a cycle or within a cycle

Cycle Day	Neutrophil ($x10^9$/L)		Platelet ($x10^9$/L)	Paclitaxel Albumin Bound	Gemcitabine
1	less than 1.5	or	less than 100	Delay until recovery	Delay until recovery
8	equal to or more than 0.5 but less than 1	or	equal to or more than 50 but less than 75	Reduce one dose level	Reduce one dose level
8	less than 0.5	or	less than 50	Withold	Withold
15	**If the day 8 doses were given without modification**				
15	equal to or more than 0.5 but less than 1	or	equal to or more than 50 but less than 75	Treat with day 8 dose level and follow with growth factors OR reduce doses 1 dose level from day 8 doses	
15	less than 0.5	or	less than 50	Withold	Withold
15	**If the day 8 doses were reduced**				
15	equal to or more than 1	and	Equal to or more than 75	Return to the day 1 dose levels and follow with growth factors OR treat with same doses as day 8	
15	equal to or more than 0.5 but less than 1	or	equal to or more than 50 but less than 75	Treat with day 8 dose levels and follow with growth factors OR reduce doses 1 dose level from day 8 doses	
15	less than 0.5	or	less than 50	Withold	
15	**If the day 8 doses were withheld**				
15	equal to or more than 1	and	more than 75	Return to day 1 dose levels and follow with growth factors OR reduce doses 1 dose level from day 1 doses	
15	equal to or more than 0.5 but less than 1	or	Equal to or more than 50 but less than 75	Reduce 1 dose level and follow with growth factors OR reduce doses 2 dose levels from day 1 doses	
15	Less than 0.5	or	Less than 50	Withold	

Table Three - Dose modifications for other adverse drug reactions

Adverse Reaction	Gemcitabine	Paclitaxel Albumin Bound
Febrile Neutropenia (NCI-CTC grade 3-4)	Withhold doses until fever resolves and the neutrophil count is $1.5x10^9$/L or above then resume at next lower dose level	
Peripheral Neuropathy (NCI-CTC grade 3-4)	Treat with the same dose	Withhold dose until improves to NCI-CTC grade 1 or below then resume at next lower dose level
Cutaneous toxicity (NCI-CTC grade 2-3)	Reduce to next lower dose level, discontinue treatment if ADR persists	
Gastrointestinal toxicity (grade 3 mucositis or diarrhoea)	Withhold doses until improves to NCI-CTC grade 1 or below then resume at next lower dose level	

Hepatic Impairment

Drug	Bilirubin (µmol/L)		AST/ALT	Dose (% of original dose)
Gemcitabine	Consider dose reductions especially where the bilirubin is raised			
Paclitaxel albumin bound	No information available			

Renal Impairment

Drug	Creatinine Clearance (ml/min)	Dose (% of original dose)
Gemcitabine	Consider dose adjustments when the CrCl is less than 30ml/min	
Paclitaxel albumin bound	No information available	

Regimen

28 day cycle for 6 cycles

Drug	Dose	Days	Administration
Gemcitabine	1000mg/m^2	1, 8, 15	Intravenous infusion in 250ml sodium chloride 0.9% over 30 minutes
Paclitaxel albumin bound	125mg/m^2	1, 8, 15	Intravenous infusion over 30 minutes

Dose Information

- Gemcitabine will be dose banded as per the agreed bands.
- Paclitaxel albumin bound will be dose banded as per the agreed bands

Administration Information

Extravasation

- Gemcitabine – neutral
- Paclitaxel albumin bound – irritant to be treated as a vesicant

Other

- The use of medical devices containing silicone oil as a lubricant (i.e. syringes and IV bags) to reconstitute and administer paclitaxel albumin bound may result in the formation of proteinaceous strands. Administer using an infusion set incorporating a 15 µm filter to avoid administration of these strands. Use of a 15 µm filter removes strands and does not change the physical or chemical properties of the reconstituted product. Use of filters with a pore size less than 15 µm may result in blockage of the filter.

Additional Therapy

- Antiemetics

  15-30 minutes prior to chemotherapy

  - metoclopramide 10mg oral or intravenous

  As take home medication on **day 1** only;

  - metoclopramide 10mg three times a day when required oral

- Gastric protection with a proton pump inhibitor or a H_2 antagonist may be considered in patients considered at high risk of GI ulceration or bleed.

Coding

- Procurement – X70.8
- Delivery – X72.9, X72.4

References
1. von Hoff DD, Ervin T, Arena FP et al. Increased survival in pancreatic cancer with nab-paclitaxel plus gemcitabine. N Engl J Med 2013; 369 (18): 1691-1703.

REGIMEN SUMMARY

Gemcitabine-Paclitaxel Albumin Bound (Abraxane)

Day 1, 8, 15

1. Metoclopramide 10mg oral or intravenous

2. Paclitaxel albumin bound 125mg/m^2 intravenous infusion over 30 minutes

3. Gemcitabine 1000mg/m^2 intravenous infusion in 250ml sodium chloride 0.9% over 30 minutes

Take Home Medicines (day 1 only)

4. Metoclopramide 10mg three times a day when required oral
   Administration Instructions
   Please supply 60 tablets or two original packs as appropriate

DOCUMENT CONTROL

Version	Date	Amendment	Written By	Approved By
1	Sept 2014	None	Dr Debbie Wright Pharmacist	Dr Tim Iveson Consultant Medical Oncologist
2	Nov 2024	Paclitaxel albumin reclassification as irritant to be treated as a vesicant	Nanda Basker Lead Cancer Services Pharmacist	

This chemotherapy protocol has been developed as part of the chemotherapy electronic prescribing project. This was and remains a collaborative project that originated from the former CSCCN. These documents have been approved on behalf of the following Trusts;

Hampshire Hospitals NHS Foundation Trust
NHS Isle of Wight
Portsmouth Hospitals NHS Trust
Salisbury Hospital NHS Foundation Trust
University Hospital Southampton NHS Foundation Trust
Western Sussex Hospitals NHS Foundation Trust

All actions have been taken to ensure these protocols are correct. However, no responsibility can be taken for errors which occur as a result of following these guidelines.