Chemotherapy Protocol

BREAST CANCER

PACLITAXEL (21day)

Regimen

- Breast Cancer – Paclitaxel (21day)

Indication

- Treatment of locally advanced or metastatic breast cancer that has failed to respond adequately to an anthracycline containing regimen
- Adjuvant treatment following another regimen such as cyclophosphamide-doxorubicin (AC)
- WHO Performance status 0, 1, 2

Toxicity

Drug	Adverse Effect
Paclitaxel	Hypersensitivity, hypotension, bradycardia, peripheral neuropathy, myalgia and back pain on administration

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

Monitoring

Regimen

- FBC, U&E's and LFT's prior to each cycle

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 the following treatment criteria must be met;

Criteria	Eligible Level
Neutrophils	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

If counts on day one are below these criteria for neutrophil and/or platelets then delay treatment for seven days. Only re-start treatment when these levels are reached. If patients experience an episode of febrile neutropenia or treatment delay due to neutrophil of less than $0.5x0^9$/L or platelets less than $50x10^9$/L for more than seven days, then reduce the dose to 80% of the original dose. If neutropenia or thrombocytopenia recurs, the dosage should be either further reduced to 50% of the original dose or treatment stopped.

Kidney Impairment

Drug	Recommendation
Paclitaxel	No dose adjustment necessary

Liver Impairment

Drug	Bilirubin (umol/L)	Dose
Paclitaxel	Less than 26	135mg/m²
	27-51	75mg/m²
	More than 51	50mg/m²

Other

Dose reductions or interruptions in therapy are not necessary for those toxicities that are considered unlikely to be serious or life threatening. For example, alopecia, altered taste or nail changes.

NCI-CTC grade 2 peripheral neuropathy withhold paclitaxel only until the neuropathy recovers to grade 1 then dose reduce to 75% of the original dose. Where the peripheral neuropathy is grade 3 again withhold the paclitaxel until it resolves to grade one and then reduce the dose of paclitaxel to 50%. Paclitaxel should be discontinued if the neuropathy does not resolve to grade one.

Regimen

21 day cycle for 6 cycles

Drug	Dose	Days	Administration
Paclitaxel	175mg/m^2	1	Intravenous infusion in 500ml sodium chloride 0.9% over 180 minutes

Dose Banding / Rounding Information

- Paclitaxel will be dose banded in accordance with the nationally agreed bands (6mg/ml)

Administration Information

- Hypersensitivity reactions tend to occur with the first or second infusion of paclitaxel. Paclitaxel infusions should be interrupted for minor symptoms such as flushing or localised rashes. If these resolve promptly (within 5 minutes) the infusion may be restarted at a lower rate with intensive monitoring. Immediately discontinue the infusion for severe reactions which include profound hypotension, bronchospasm and generalised erythema.

- Paclitaxel must be administered via a non-PVC administration set containing an in-line 0.22 micron filter.

Extravasation

- Paclitaxel – vesicant

Additional Therapy

- Antiemetics

  15-30 minutes before chemotherapy

  - metoclopramide 10mg oral or intravenous

  As take home medication

  - metoclopramide 10mg three times a day when required oral

- Premedication to reduce of risk of hypersensitivity reaction

  30 minutes before chemotherapy

  - chlorphenamine 10mg intravenous
  - dexamethasone 20mg intravenous
  - H_2 antagonist according to local formulary choice and availability

- Mouthwashes according to local or national policy on the treatment of mucositis

- 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.

References
1. Peretz T, Sulkes A, Chollet P et al (1999) A multicenter, randomized study of two schedules of Paclitaxel (PXT) in patients with advanced breast cancer. (ABC) Eur J Cancer. 31A (Supplement 5): S75.
2. Ellerton JA and Rowan N (1996) Single-dose i.v dexamethasone one hour before infusion as pre- treatment for Paclitaxel. Proc Am Soc Clin Oncol, 15: 548 (abstract)

REGIMEN SUMMARY

Paclitaxel (21day)

Day One

1. Chlorphenamine 10mg intravenous

2. Dexamethasone 20mg intravenous

3. H_2 antagonist according to local formulary choice and availability.

Administration Instructions
Administer according to local formulary choice and availability one of the following 30 minutes prior to chemotherapy;

- ranitidine 50mg intravenous once only
- famotidine 20mg oral once only
- nizatidine 150mg oral once only
- ranitidine 150mg oral once only

If there is no stock of these products due to national shortages treatment may proceed without the H_2antagonist provided there is no instruction in the ARIA journal indication the patient **must have** H_2 antagonist treatment.

All infusion related reactions must be recorded in the ARIA journal and reported to the appropriate consultant. Many Trusts do not administer an H_2 antagonist from cycle three onwards. They have been left in the ARIA protocols so that decisions can be made on an individual Trust and patient basis.

4. Metoclopramide 10mg oral or intravenous

5. Paclitaxel 175mg/m² intravenous infusion in 500ml sodium chloride 0.9% over 180 minutes

Administration Instructions
Paclitaxel must be administered via a non-PVC administration set containing an in-line 0.22 micron filter

Take Home Medicines

6. Metoclopramide 10mg three times a day when required oral

DOCUMENT CONTROL

Version	Date	Amendment	Written By	Approved By
1.3	October 2020	Updated admin instructions for H_2	Donna Kimber Pharmacy Technician	Dr Deborah Wright Pharmacist
1.2	Sept 2020	Update of premedication due to shortage of ranitidine. Ranitidine changed to H_2 antagonist according to local formulary choice and availability. Coding removed	Siow Chin Phua Pharmacist	Dr Deborah Wright Pharmacist
1.1	August 2014	Header changed Toxicities removed Adverse effects tabulated ≥ removed and written in full Dose modification tabulated Hepatic impairment updated Regimen tabulated Metoclopramide dose changed to 10mg Bolus removed from intravenous bolus throughout text Mucositis recommendation changed Disclaimer added	Donna Kimber Pharmacy Technician	Dr Deborah Wright Pharmacist
1	Nov 2011	None	Anna Bunch Pharmacist Dr Deborah Wright Pharmacist	Dr Ellen Copson Consultant Medical Oncologist Dr Caroline Archer Consultant Medical Oncologist

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 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.