Chemotherapy Protocol

BREAST CANCER

CARBOPLATIN (AUC6) 6 CYCLES

Regimen

- Breast Cancer – Carboplatin (AUC6) 6 cycles

Indication

- Treatment of metastatic breast cancer
- WHO Performance status 0, 1, 2

Toxicity

Drug	Adverse Effect
Carboplatin	Neuropathy, nephrotoxicity, ototoxicity, thrombocytopenia

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

Monitoring

Regimen

- EDTA or calculated creatinine clearance before the 1st cycle
- 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
Neutrophil	equal to or more than $1x10^9$/L
Platelets	equal to or more than $100x10^9$/L

Consider blood transfusion or the use of erythropoietin according to NICE TA323 if patient symptomatic of anaemia or has haemoglobin of less than 8g/dL (80g/L)

If counts on day one are below these criteria for neutrophil and/or platelets then delay treatment for seven days. Treatment should only be re-started when these levels are reached. Treatment may be resumed at the original dose or reduce the original dose of carboplatin to AUC5.5 if the starting dose was AUC6 and AUC4.5 where the starting dose was AUC5 depending on clinical circumstances. If a second episode of neutropenia / thrombocytopenia occurs or the time to reach the eligible level is longer than seven days consider stopping treatment.

Hepatic Impairment

Drug	Recommendation
Carboplatin	No dose reduction necessary

Renal Impairment

Drug	Dose (% of original dose)
Carboplatin	Significant changes in GFR (of more than 10%) may require dose adjustment Do not administer if the CrCl is less than 20ml/min

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. Dose limiting toxicities include neuropathy and ototoxicity among others.

Regimen

The starting dose of carboplatin AUC6 is used with calculated GFR. AUC5 may be considered with EDTA clearance, seek advice from the appropriate consultant before prescribing. The recommended maximum dose when using a calculated creatinine clearance at AUC6 is 900mg (this will set as 890mg to match the national dose bands). If you have an obese patient or an individual with a calculated creatinine clearance above 125ml/min please seek advice from the relevant consultant.

It should be noted that the dose of carboplatin may need to be altered if there is a change (improvement or reduction) in renal function of more than 10% from the previous cycle.

21 day cycle for up to 6 cycles

Drug	Dose	Days	Administration
Carboplatin	AUC6 (max dose 890mg)	1	Intravenous infusion in 500ml glucose 5% over 60 minutes

Dose Banding

- Carboplatin will be dose banded according to the national dose band (10mg/ml)
- The maximum dose for an AUC 6 is 900mg (set as 890mg in ARIA to match the national dose bands)
- If you have an obese patient or an individual with a calculated creatinine clearance above 125ml/min please seek advice from the relevant consultant.
- It should be noted that the dose of carboplatin may need to be altered if there is a change (improvement or reduction) in renal function of more than 10% from the previous cycle.

Administration Information

Extravasation

Carboplatin – irritant

Additional Therapy

- Antiemetics

15-30 minutes prior to chemotherapy;

- dexamethasone 8mg oral or equivalent intravenous
- ondansetron 8mg oral or intravenous

As take home medication

- dexamethasone 4mg twice a day for 3 days
- metoclopramide 10mg three times a day when required oral

References
1 Martin M, Diaz-Rubio E, Casado A et al. Carboplatin: an active drug in metastatic breast cancer. J Clin Oncol 1992; 10 (3): 433-437
2. Kolaric K, Vukas D. Carboplatin activity in untreated metastatic breast cancer patients: results of a phase II study. Cancer Chemother Pharmacol 1991; 27 (5): 409-412.

REGIMEN SUMMARY

Carboplatin (AUC6) 6 cycles

Day One

1. Dexamethasone 8mg oral or intravenous
   Administration Instructions
   Administer 15-30 minutes prior to SACT. This may be given as dexamethasone 8mg IV stat or equivalent dose as required

2. Ondansetron 8mg oral or intravenous
   Administration Instructions
   Administer 15-30 minutes prior to SACT. This may be given as ondansetron 8mg IV stat if required.

3. Carboplatin AUC6 intravenous infusion in 500ml glucose 5% over 60 minutes

Take Home Medicines

4. Dexamethasone 4mg twice a day oral for 3 days starting on day two of the cycle
   Administration Instructions
   Take with or after food, starting on day two of the cycle.

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

   Administration Instructions
   When required for the relief of nausea. Please supply five days or an original pack as appropriate.

DOCUMENT CONTROL

Version	Date	Amendment	Written By	Approved By
1.2	June 2022	Name changed Blood transfusion changed Dose banding changed to national dose bands Dose rounding removed Maximum dose 890mg added Coding removed Administration instructions added	Dr Deborah Wright Pharmacist	Donna Kimber Pharmacy Technician
1.1	August 2014	Header changed Adverse effects put in table and toxicity removed Dose modification tabulated ≥ removed and written in full Renal and hepatic function tabulated Carboplatin paragraph amended under regimen Regimen tabulated Metoclopramide dose changed to 10mg Bolus removed from intravenous bolus throughout text OPCS code updated Dexamethasone TTO clarified Document control tabulated Disclaimer added	Donna Kimber Pharmacy Technician	Dr Debbie Wright Pharmacist
1	June 2011	None	Anna Bunch Pharmacist Dr Debbie 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 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.