

Chemotherapy Protocol
GYNAECOLOGICAL CANCER
CARBOPLATIN
(AUC5)

Regimen

- Ovary – Carboplatin (AUC 5)

Indication

- Adjuvant treatment in patients with moderate to high risk stage 1A/B ovarian cancer
- Adjuvant treatment in patients with stage 1C, II - VI ovarian cancer who are unsuitable for paclitaxel or higher doses of single agent carboplatin
- Second line or subsequent treatment of platinum sensitive ovarian cancer
- WHO performance status 1, 2. Consider using in the frail and elderly.

Toxicity

Drug	Adverse Effect
Carboplatin	Thrombocytopenia, peripheral neuropathy, nephrotoxicity at high doses, electrolyte disturbances

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

Monitoring

- FBC, LFTs and U&Es prior to each cycle
- CA125 prior to each cycle

Dose Modifications

The dose modifications listed are for haematological, liver and renal function and drug specific toxicities 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.

Haematological

Prior to each cycle the following criteria must be met;

Criteria	Eligible Level
Neutrophil	equal to or more than $1 \times 10^9/L$
Platelets	equal to or more than $100 \times 10^9/L$

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

Day 1

Neutrophils ($\times 10^9/L$)	Dose Modifications
1 or greater	100%
less than 1	Delay for 7 days. If the counts recover to $1 \times 10^9/L$ or greater within this time continue with full dose. If the counts do not recover within 7 days or repeated delays are required then delay until recovery then reduce dose by 20%
Platelets ($\times 10^9/L$)	Dose Modifications
100 or greater	100%
50-99	Delay for 7 days. If the counts recover to $100 \times 10^9/L$ or greater within this time continue with full dose. If counts do not recover within 7 days or repeated delays are required then delay until recovery then reduce dose by 20%
less than 50	Delay until recovery then reduce dose by 50%

Hepatic Impairment

Drug	Bilirubin $\mu\text{mol/L}$	AST/ALT units	Dose (% of original dose)
Carboplatin	N/A	N/A	No dose adjustment needed

Renal Impairment

Drug	Creatinine Clearance (ml/min)	Dose (% of original dose)
Carboplatin	less than 20	Omit

Significant changes in GFR of more than 10% may require dose adjustment.

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.

For all other non-haematological NCI-CTC grade 3 and above toxicities delay treatment until the adverse effect has resolved to NCI-CTC grade 1 or below. The dose should then be reduced to 80% of the original dose or discontinued as appropriate.

Regimen

The starting dose of carboplatin AUC 5 is used with calculated GFR. AUC 4 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 AUC5 is 750mg (creatinine clearance 125ml/min). This is not a dose included in the national dose banding table. The maximum dose has been set at 790mg in ARIA. Please check if this dose is appropriate. 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 6 cycles

Drug	Dose	Days	Administration
Carboplatin	AUC5 (maximum dose)	1	Intravenous infusion in 500ml glucose 5% over 60 minutes

Dose Information

- Carboplatin will be dose banded in accordance with the national dose bands (10mg/ml)
- The maximum dose of carboplatin for AUC 5 is 750mg. This will be set as 790mg in ARIA to comply with national dose bands.
- 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 intravenous
- ondansetron 8mg oral or intravenous

As take home medication

- dexamethasone 4mg oral twice a day for 3 days
- metoclopramide 10mg oral three times a day for 3 days then as required
- Gastric protection with a proton pump inhibitor or a H₂ antagonist may be considered in patients considered at high risk of GI ulceration or bleed.

References

1. Paclitaxel plus carboplatin versus standard chemotherapy with either single agent carboplatin or cyclophosphamide doxorubicin, and cisplatin in women with ovarian cancer: the ICON3 randomised trial. Lancet 2002; 360:505-515.
2. ICON2: randomised trial of single agent carboplatin against three drug combination of CAP (cyclophosphamide, doxorubicin, and cisplatin) in women with ovarian cancer. ICON Collaborators. International Collaborative Ovarian Neoplasm Study. Lancet 1998;352(9140):1571-6.
3. Paclitaxel plus platinum based chemotherapy versus conventional platinum based chemotherapy in women with relapsed ovarian cancer: The ICON4/AGOVAR2.2 trial. Lancet 2003; 361 (9375): 2099-2106.
4. Bolis G, Scarfone G, Giardina G, Villa A, Mangili G, Melpigano M, et al. Carboplatin alone vs carboplatin plus epidoxorubicin as second line chemotherapy for cisplatin or carboplatin sensitive ovarian cancer. Gynecol Oncol 2001;81:39.

REGIMEN SUMMARY

Carboplatin (AUC 5)

Day One

- 1. Dexamethasone 8mg oral or intravenous**
Administration Instructions
Administer 15-30 minutes prior to SACT. May be administered as dexamethasone 8mg (or equivalent dose) intravenous if required
- 2. Ondansetron 8mg oral or intravenous**
Administration Instructions
Administer 15-30 minutes prior to SACT. Administer ondansetron 8mg intravenous if required
- 3. Warning - Carboplatin Maximum Dose**
Administration Instructions
The dose of carboplatin is capped at a creatinine clearance of 125ml/min. The internationally recommended maximum dose of carboplatin for AUC 5 is 750mg. The national dose bands do not contain this dose so the cap has been set at 790mg in ARIA. Please check this dose is appropriate for your patient.
- 4. Carboplatin AUC 5 intravenous infusion in 500ml glucose 5% over 60 minutes**
Administration Instructions
The dose of carboplatin is capped at a creatinine clearance of 125ml/min. The internationally recommended maximum dose of carboplatin for AUC 5 is 750mg. The national dose bands do not contain this dose so the cap has been set at 790mg in ARIA. Please check this dose is appropriate for your patient

Take Home Medicines

- 5. Dexamethasone 4mg oral twice a day for 3 days starting on day 2 of the cycle**
Administration Instructions
Take 4mg twice a day (morning and lunch) for 3 days starting on day 2 of the cycle
- 6. Metoclopramide 10mg oral three times a day for three days then 10mg three times a day when required for nausea.**
Administration Instructions
Please supply 28 tablets or an original pack as appropriate

DOCUMENT CONTROL

Version	Date	Amendment	Written By	Approved By
1.2	July 2022	National dose bands added Maximum dose added Coding removed Administration instructions added	Dr Deborah Wright Pharmacist	Donna Kimber Pharmacy Technician
1.1	April 2014	Under regimen maximum dose of carboplatin added Dose Information changed to dose banding information Bolus removed from intravenous bolus Metoclopramide dose changed to 10mg from 10-20mg Disclaimer changed	Dr Deborah Wright Pharmacist	Donna Kimber Pharmacy Technician
1	May 2013	None	Rebecca Wills Pharmacist Dr Deborah Wright Pharmacist	Dr Clare Green Consultant Medical Oncologist Dr Cheng Yeoh 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.