Chemotherapy Protocol

GYNAECOLOGICAL CANCER

CARBOPLATIN

(AUC5)

Regimen

- Ovary – Carboplatin (AUC5)

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

<table>
<thead>
<tr>
<th>Drug</th>
<th>Adverse Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carboplatin</td>
<td>Thrombocytopenia, peripheral neuropathy, nephrotoxicity at high doses, electrolyte disturbances</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Eligible Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neutrophil</td>
<td>equal to or more than 1x10⁹/L</td>
</tr>
<tr>
<td>Platelets</td>
<td>equal to or more than 100x10⁹/L</td>
</tr>
</tbody>
</table>

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

**Day 1**

<table>
<thead>
<tr>
<th>Neutrophils (x10⁹/L)</th>
<th>Dose Modifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 or greater</td>
<td>100%</td>
</tr>
<tr>
<td>less than 1</td>
<td>Delay for 7 days. If the counts recover to 1x10⁹/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%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Platelets (x10⁹/L)</th>
<th>Dose Modifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 or greater</td>
<td>100%</td>
</tr>
<tr>
<td>50-99</td>
<td>Delay for 7 days. If the counts recover to 100x10⁹/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%</td>
</tr>
<tr>
<td>less than 50</td>
<td>Delay until recovery then reduce dose by 50%</td>
</tr>
</tbody>
</table>

**Hepatic Impairment**

<table>
<thead>
<tr>
<th>Drug</th>
<th>Bilirubin μmol/L</th>
<th>AST/ALT units</th>
<th>Dose (% of original dose)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carboplatin</td>
<td>N/A</td>
<td>N/A</td>
<td>No dose adjustment needed</td>
</tr>
</tbody>
</table>

**Renal Impairment**

<table>
<thead>
<tr>
<th>Drug</th>
<th>Creatinine Clearance (ml/min)</th>
<th>Dose (% of original dose)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carboplatin</td>
<td>less than 20</td>
<td>Omit</td>
</tr>
</tbody>
</table>
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

21 day cycle for 6 cycles

<table>
<thead>
<tr>
<th>Drug</th>
<th>Dose</th>
<th>Days</th>
<th>Administration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carboplatin</td>
<td>AUC5</td>
<td>1</td>
<td>Intravenous infusion in 500ml glucose 5% over 60 minutes</td>
</tr>
</tbody>
</table>

Dose Information

- The recommended maximum dose when using a calculated creatinine clearance at AUC5 is 750mg. 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.
- Carboplatin dose will be rounded to the nearest 50mg (up if halfway).

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.

**Coding (OPCS 4.6)**

- Procurement – X70.2
- Delivery – X72.3

**References**

REGIMEN SUMMARY

Carboplatin (AUC5)

Day One

1. Dexamethasone 8mg oral or intravenous
2. Ondansetron 8mg oral or intravenous
3. Carboplatin AUC5 intravenous infusion in 500ml glucose 5% over 60 minutes.

Take Home Medicines

4. Dexamethasone 4mg oral twice a day for 3 days starting the day after chemotherapy
5. Metoclopramide 10mg oral three times a day for three days then 10mg three times a day when required for nausea.
## DOCUMENT CONTROL

<table>
<thead>
<tr>
<th>Version</th>
<th>Date</th>
<th>Amendment</th>
<th>Written By</th>
<th>Approved By</th>
</tr>
</thead>
</table>
| 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 Clare Green Consultant Medical Oncologist |
|         |          |                                                                                                    | Dr Deborah Wright Pharmacist     | 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.