Chemotherapy Protocol

HEAD AND NECK CANCER

CISPLATIN (40) RT

Regimen

- Head and Neck Cancer – Cisplatin (40) RT

Indication

- Radical treatment of locally advanced head and neck cancer when surgery is inappropriate.

Toxicity

<table>
<thead>
<tr>
<th>Drug</th>
<th>Adverse Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cisplatin</td>
<td>Neuropathy, nephrotoxicity, ototoxicity</td>
</tr>
</tbody>
</table>

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

Monitoring

Drugs

- FBC, LFTs and U&Es prior to the administration of cisplatin

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

Consider blood transfusion to maintain haemoglobin above 12g/dL

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Eligible Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neutrophils</td>
<td>1.5x10⁹/L or greater</td>
</tr>
<tr>
<td>Platelets</td>
<td>100x10⁹/L or greater</td>
</tr>
</tbody>
</table>
Defer treatment for 7 days if the neutrophil count is less than 1.5x10^9/L and/or the platelet count is less than 100x10^9/L. If the counts have recovered to these levels at 7 days resume treatment. Consider using a 75% dose reduction. If the counts do not recover delay a further seven days. If they are satisfactory at 14 days treatment can be re-started using a 50% dose reduction.

**Hepatic Impairment**

<table>
<thead>
<tr>
<th>Drug</th>
<th>Bilirubin (μmol/L)</th>
<th>AST/ALT units</th>
<th>Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cisplatin</td>
<td>N/A</td>
<td>N/A</td>
<td>No dose reduction necessary</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>Cisplatin</td>
<td>more than 60</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>45-59</td>
<td>75</td>
</tr>
<tr>
<td></td>
<td>less than 45</td>
<td>consider carboplatin</td>
</tr>
</tbody>
</table>

**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.

A cycle of chemotherapy should be delayed for up to two weeks to allow for a reduction in the severity of toxic events of NCI-CTC grade 3 or more to a severity of NCI-CTC grade 1 or less (with the exception of alopecia, fatigue, malaise, and nail changes). Delays beyond two weeks required discontinuation of treatment.

**Cisplatin**

Modifications in the dose of cisplatin are necessary for peripheral sensory and motor neurotoxicity, ototoxicity, or nephrotoxicity. Consider stopping treatment for patients with neurotoxicity or ototoxicity of NCI-CTC grade 3 or more.

**Regimen**

**7 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>Cisplatin</td>
<td>40mg/m²</td>
<td>1</td>
<td>Intravenous infusion in 1000ml sodium chloride 0.9% with 20mmol potassium chloride at a maximum rate of 1mg cisplatin/min (minimum time 60 minutes)</td>
</tr>
</tbody>
</table>
Dose Information

- Cisplatin will be dose banded according to the CSCCN agreed bands

Administration Information

Extravasation

- Cisplatin – exfoliant

Additional Therapy

- Antiemetics
  
  15-30 minutes prior to chemotherapy
  
  - dexamethasone 8mg oral or equivalent dose intravenous
  - ondansetron 8mg oral or intravenous

As take home medication

- dexamethasone 4mg once a day for 2 days
- metoclopramide 10mg oral three times a day for 2 days and then 10mg three times a day as required
- ondansetron 8mg oral twice a day for 2 days

- Cisplatin hydration as follows;

  Cisplatin pre-hydration

  - furosemide 40mg oral or intravenous as required
  - sodium chloride 0.9% 500ml with 8mmol magnesium sulphate over 30 minutes

  Cisplatin post hydration

  - sodium chloride 0.9% 500ml over 30 minutes

- 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

- Procurement – X70.1
- Delivery – X72.3
References
REGIMEN SUMMARY
Cisplatin (40) RT

Day One

1. Dexamethasone 8mg oral or equivalent dose intravenous
2. Ondansetron 8mg oral or intravenous
3. Furosemide 40mg oral or intravenous if required
4. Sodium chloride 0.9% 500ml with magnesium sulphate 8mmol intravenous infusion over 30 minutes
5. Cisplatin 40mg/m² in 1000ml sodium chloride 0.9% with 20mmol potassium chloride intravenous infusion at a rate of 1mg/min cisplatin (minimum 60 minutes)
6. Sodium chloride 0.9% 500ml intravenous infusion over 30 minutes

Take Home Medicines

7. Dexamethasone 4mg oral once a day for 2 days starting on day two of the cycle
8. Metoclopramide 10mg oral three times a day for 2 days then 10mg three times a day when required for nausea
9. Ondansetron 8mg oral twice a day for 2 days starting on the evening of day one of the cycle
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 Hospitals NHS Foundation Trust
- University Hospital Southampton NHS Foundation Trust
- Western Sussex Hospitals NHS Trust

All actions have been taken to ensure these protocols are correct. However, it remains the responsibility of the prescriber to ensure the correct drugs and doses are prescribed for patients.