# CISplatin (40mg/m²) Weekly with Radiotherapy (RT)

## INDICATIONS FOR USE:

<table>
<thead>
<tr>
<th>INDICATION</th>
<th>ICD10</th>
<th>Regimen Code</th>
<th>*Reimbursement Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemoradiation treatment for locally advanced (stage IIB to IVA) cervical squamous cell carcinoma (SCC)</td>
<td>C53</td>
<td>00385a</td>
<td></td>
</tr>
<tr>
<td>Chemoradiation treatment for locally advanced bladder cancer</td>
<td>C67</td>
<td>00385b</td>
<td></td>
</tr>
<tr>
<td>Chemoradiation treatment for locally advanced nasopharyngeal carcinoma</td>
<td>C11</td>
<td>00385c</td>
<td></td>
</tr>
<tr>
<td>Chemoradiation treatment for locally advanced unresectable head and neck squamous carcinoma (SCC) in patients who cannot tolerate three weekly CISplatin regimens.</td>
<td>C76</td>
<td>00385d</td>
<td></td>
</tr>
</tbody>
</table>

*If a reimbursement indicator (e.g. ODMS, CDS) is not defined, the drug and its detailed indication have not gone through the formal reimbursement process as legislated for in the Health (Pricing and Supply of Medical Goods) Act 2013.

## TREATMENT:

The starting dose of the drugs detailed below may be adjusted downward by the prescribing clinician, using their independent medical judgement, to consider each patient's individual clinical circumstances.

**Cervical Carcinoma:** CISplatin is administered once every 7 days with concurrent radiotherapy for 5 cycles and can be continued weekly with concurrent radiotherapy at the discretion of the prescribing consultant.

**Bladder, Nasopharyngeal, Head and Neck:** CISplatin is administered once every 7 days with concurrent radiotherapy for 6 cycles.

Facilities to treat anaphylaxis **MUST** be present when the chemotherapy is administered.

<table>
<thead>
<tr>
<th>Day</th>
<th>Drug</th>
<th>Dose</th>
<th>Route</th>
<th>Diluent &amp; Rate</th>
<th>Cycle</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CISplatin</td>
<td>40mg/m²</td>
<td>IV Infusion</td>
<td>500-1000ml NaCl 0.9% over 2 hours (Pre and Post hydration therapy required)**</td>
<td>Every 7 days</td>
</tr>
</tbody>
</table>

** Pre and post hydration therapy required for CISplatin

See local hospital policy recommendations.

Suggested prehydration for CISplatin therapy:

1. Administer 10mmol magnesium sulphate (MgSO₄) (+/- KCl 20mmol/L if indicated) in 1000 mL sodium chloride 0.9% over 60 minutes.

Administer CISplatin as described above.

Post hydration: Administer 1000 ml 0.9% NaCl over 60mins

Mannitol 10% may be used as per local policy to induce diuresis, although there is no conclusive evidence that this is required. The routine use of furosemide to increase urine flow is not recommended unless there is evidence of fluid overload (9,10).

**CISplatin (radiosensitizer) – Radiotherapy** Since CISplatin is used in this protocol as a radiosensitising agent, it is to be administered on the day on which radiotherapy is delivered.

Radiotherapy should start after CISplatin infusion is completed. If radiotherapy is cancelled on the CISplatin day, do not give CISplatin that day and postpone chemotherapy until radiation therapy resumes.
NCCP Chemotherapy Regimen

ELIGIBILITY:
- Indications as above
- ECOG 0-2
- Adequate hepatic, renal, and bone marrow function

EXCLUSIONS:
- Hypersensitivity to CISplatin or any of the excipients
- Moderate/severe renal impairment (creatinine clearance < 60 mL/min)
- Significant hearing impairment/tinnitus
- Pregnancy
- Breast Feeding

PRESCRIPTIVE AUTHORITY:
The treatment plan must be initiated by a Consultant Medical Oncologist

TESTS:
Baseline tests:
- Blood, renal and liver profile
- Audiology and creatinine clearance if clinically indicated

Regular tests:
- Blood, renal and liver profile prior to each cycle.

Disease monitoring:
Disease monitoring should be in line with the patient’s treatment plan and any other test/s as directed by the supervising Consultant.

DOSE MODIFICATIONS:
- Any dose modification should be discussed with a Consultant.

Haematological:
Table 1: Dose modification of CISplatin in haematological toxicity

<table>
<thead>
<tr>
<th>ANC (x10^9/L)</th>
<th>Platelets (x10^9/L)</th>
<th>Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;1</td>
<td>or</td>
<td>&lt;100</td>
</tr>
</tbody>
</table>

Renal and Hepatic Impairment:
Table 2: Dose modification of CISplatin in renal and hepatic impairment

<table>
<thead>
<tr>
<th>Renal Impairment</th>
<th>Hepatic Impairment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cr CI (ml/min)</td>
<td>Dose</td>
</tr>
<tr>
<td>≥60</td>
<td>100%</td>
</tr>
<tr>
<td>45-59</td>
<td>75%</td>
</tr>
<tr>
<td>&lt;45</td>
<td>Hold CISplatin or delay with additional IV fluids or go to CARBOplatin</td>
</tr>
</tbody>
</table>

NCCP Regimen: CISplatin 40mg/m^2 Weekly with Radiotherapy
Published: 20/12/2016
Review: 06/12/2019
Version number: 3

Tumour Group: Genitourinary/Gynaecology/Head & Neck
NCCP Regimen Code: 00385

ISMOS Contributor: Prof Maccon Keane

The information contained in this document is a statement of consensus of NCCP and ISMO or IHS professionals regarding their views of currently accepted approaches to treatment. Any clinician seeking to apply or consult these documents is expected to use independent medical judgement in the context of individual clinical circumstances to determine any patient's care or treatment. Use of these documents is the responsibility of the prescribing clinician. and is subject to HSE's terms of use available at http://www.hse.ie/eng/Disclaimer

This information is valid only on the day of printing, for any updates please check www.hse.ie/NCCPchemoregimens
NCCP Chemotherapy Regimen

Management of adverse events:
Table 3: Dose Modification of CISplatin for Adverse Events

<table>
<thead>
<tr>
<th>Adverse reactions</th>
<th>Recommended dose modification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peripheral neuropathy</td>
<td>Reduce CISplatin dose by 25%</td>
</tr>
<tr>
<td>Grade 2</td>
<td></td>
</tr>
<tr>
<td>Grade 3 or 4</td>
<td>Omit CISplatin</td>
</tr>
</tbody>
</table>

SUPPORTIVE CARE:
EMETOGENIC POTENTIAL: High (Refer to local policy).

PREMEDICATIONS:
Hydration pre and post CISplatin administration (Reference local policy or see recommendations above).

OTHER SUPPORTIVE CARE: No specific recommendations

ADVERSE EFFECTS / REGIMEN SPECIFIC COMPLICATIONS
The adverse effects listed are not exhaustive. Please refer to the relevant Summary of Product Characteristics for full details.

- Neutropenia: Fever or other evidence of infection must be assessed promptly and treated appropriately.
- Renal toxicity: Renal toxicity is common with CISplatin. Encourage oral hydration.
- Ototoxicity and sensory neural damage should be assessed by history prior to each cycle.

DRUG INTERACTIONS:
- Avoid concurrent use of CISplatin with nephrotoxic drugs (e.g. aminoglycosides, furosemide, NSAIDS) due to additive nephrotoxicity. If necessary monitor renal function closely.
- Current drug interaction databases should be consulted for more information.

ATC CODE:
CISplatin L01XA01

REFERENCES:

| Version | Date       | Amendment                                                      | Approved By          |
|---------|------------|                                                               |                      |
| 1       |            |                                                               | Prof Maccon Keane    |
| 2       | 20/09/2017 | Applied new NCCP regimen template Clarity of dosing in Cervical Carcinoma | Prof Maccon Keane    |
| 3       | 06/12/2017 | Updated with revised CISplatin hydration regimen recommendations | Prof Maccon Keane    |

Comments and feedback welcome at oncologydrugs@cancercontrol.ie.

1 ODMS – Oncology Drug Management System
CDS – Community Drug Schemes (CDS) including the High Tech arrangements of the PCRS community drug schemes
Further details on the Cancer Drug Management Programme is available at;
http://www.hse.ie/eng/services/list/5/cancer/profinfomedonc/cdmp/
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