# CISplatin (40mg/m$^2$) Weekly with Radiotherapy (RT)

## INDICATIONS FOR USE:

| INDICATION | ICD10 | Regimen Code | HSE approved reimbursement status** |
|---|---|---|---|
| Definitive chemoradiation treatment for locally advanced (stage IIB to IVA*) cervical squamous cell carcinoma (SCC), adeno-squamous cell carcinoma and adenocarcinoma of the cervix | C53 | 00385a | N/A |
| Chemoradiation treatment for locally advanced bladder cancer | C67 | 00385b | N/A |
| Chemoradiation treatment for locally advanced nasopharnygeal carcinoma | C11 | 00385c | N/A |
| Chemoradiation treatment for locally advanced unresectable head and neck squamous carcinoma (SCC) in patients who cannot tolerate three weekly CISplatin regimens | C76 | 00385d | N/A |
| Post-operative adjuvant chemoradiation treatment for squamous cell carcinoma, adeno-squamous cell carcinoma and adenocarcinoma of the cervix with unexpected pathological node positivity | C53 | 00385e | N/A |

* some IB3 and Stage IIa; requires MDT discussion

**This is for post 2012 indications only

## 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 patients 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 systemic anti-cancer therapy is administered.

| Day | Drug | Dose | Route | Diluent & Rate | Cycle |
|---|---|---|---|---|---|
| 1 | CISplatin | 40mg/m$^2$ | IV Infusion | 1000mL NaCl 0.9% over 1 hour (Pre and Post hydration therapy required)** | Every 7 days |

**** Pre and post hydration therapy required for CISplatin**

See local hospital policy recommendations.

Suggested prehydration for CISplatin therapy:

1. Administer 10mmol magnesium sulphate ($MgSO_4$) ((+/-KCl 10-20mmol/L if indicated) in 1000 mL NaCl 0.9% over 60 - 120 minutes. (Refer to relevant local hospital policy for advice on administration of electrolyte infusions).

Administer CISplatin as described above

Post hydration: Administer 1000 mL 0.9% NaCl over 60 minutes

Mannitol 10% may be used to 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

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.

Note: Administration volumes and fluids have been standardised to facilitate electronic prescribing system builds.

## ELIGIBILITY:

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

## EXCLUSIONS:

- Hypersensitivity to CISplatin or any of the excipients
- Significant hearing impairment/tinnitus
- Pregnancy
- Breastfeeding
- Pre-existing renal impairment

## PRESCRIPTIVE AUTHORITY:

The treatment plan must be initiated by a Consultant Medical Oncologist

## TESTS:

**Baseline tests:**

- FBC, renal and liver profile
- Audiology and creatinine clearance if clinically indicated

**Regular tests:**

- FBC, renal and liver profile prior to each cycle.
- Audiology if clinically indicated

**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**

| ANC ($x10^9$/L) | | Platelets ($x10^9$/L) | Dose |
|---|---|---|---|
| <1 | **or** | <100 | Delay chemotherapy until recovery |

### Renal and Hepatic Impairment:

**Table 2: Dose modification of CISplatin in renal and hepatic impairment**

| Renal Impairment | | Hepatic Impairment |
|---|---|---|
| **CrCl (mL/min)** | **Dose** | No need for dose adjustment is expected |
| 50-59 | 75% of the original dose | |
| 40-49 | 50% of the original dose | |
| <40 | Not recommended | |
| Haemodialysis | 50% of the original dose may be considered | |
| CISplatin (renal and hepatic - Giraud et al 2023) | | |

### Management of adverse events:

**Table 3: Dose Modification of CISplatin for Adverse Events**

| Adverse reactions | Recommended dose modification |
|---|---|
| Peripheral neuropathy<br>Grade 2<br><br>Grade 3 or 4 | <br>Reduce CISplatin dose by 25%<br><br>Omit CISplatin |

## SUPPORTIVE CARE:

### EMETOGENIC POTENTIAL:

- As outlined in NCCP Classification Document for Systemic AntiCancer Therapy (SACT) Induced Nausea and Vomiting- Available on the NCCP website

CISplatin: High **(Refer to local policy)**.

**For information:**

**Within NCIS regimens, antiemetics have been standardised by Medical Oncologists Haemato-oncologists and information is available in the following document:**

- NCCP Supportive Care Antiemetic Medicines for **Inclusion in NCIS** (Medical Oncology) - Available on the NCCP website
- NCCP Supportive Care Antiemetic Medicines for **Inclusion in NCIS** (Haemato-oncology) - Available on the NCCP website

**PREMEDICATIONS:**

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

**OTHER SUPPORTIVE CARE:** No specific recommendations

## ADVERSE EFFECTS:

- Please refer to the relevant Summary of Product Characteristics (SmPC) for details.

## DRUG INTERACTIONS:

- Current SmPC and drug interaction databases should be consulted for more information

## REFERENCES:


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| Version | Date | Amendment | Approved By |
|---|---|---|---|
| 1 | | | Prof Maccon Keane |
| 2 | 20/09/2017 | Applied new NCCP regimen template. Clarified dosing in Cervical Carcinoma | Prof Maccon Keane |
| 3 | 06/12/2017 | Updated with revised CISplatin hydration regimen recommendations | Prof Maccon Keane |
| 4 | 08/01/2020 | Reviewed. Standardised treatment table. | Prof Maccon Keane |
| 5 | 25/10/2024 | Regimen reviewed. Updated gynaecology indications. Updated footnotes in treatment | Prof Maccon Keane |

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|---|---|---|---|
| | | table. Updated exclusions. Updated regular tests. Updated Table 1. Updated renal and hepatic recommendations in line with Giraud et al, 2023. Updated regimen in line with NCCP standardisation. | |

Comments and feedback welcome at oncologydrugs@cancercontrol.ie.