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

Drug	Adverse Effect
Cisplatin	Neuropathy, nephrotoxicity, ototoxicity

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

Criteria	Eligible Level
Neutrophils	$1.5x10^9$/L or greater
Platelets	$100x10^9$/L or greater

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

Drug	Bilirubin (µmol/L)		AST/ALT units	Dose
Cisplatin	N/A		N/A	No dose reduction necessary

Renal Impairment

Drug	Creatinine Clearance (ml/min)	Dose (% of original dose)
Cisplatin	more than 60	100
	45-59	75
	less than 45	consider carboplatin

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

Drug	Dose	Days	Administration
Cisplatin	$40mg/m^2$	1	Intravenous infusion in 1000ml sodium chloride 0.9% with 20mmol potassium chloride at a maximum rate of 1mg cisplatin/min (minimum time 60 minutes)

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 H_2 antagonist may be considered in patients considered at high risk of GI ulceration or bleed

Coding

- Procurement – X70.1
- Delivery – X72.3

References

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2.Bachaud, J-M, Cohen-Jonathan E, Alzieu C, David J-M, Serrano E, Daly-Schveitzer N. Combined postoperative radiotherapy and Weekly Cisplatin infusion for locally advanced head and neck carcinoma: Final report of a randomized trial. Int J Radiat Oncol Biol Phys 1996; 36 (5): 999 -1004
3.Prosnitz RG, Yao B, Farrell CL, Clough R, Brizel DM. Pretreatment anemia is correlated with the reduced effectiveness of radiation and concurrent chemotherapy in advanced head and neck cancer. Int J Radiat Oncol Biol Phys 2005; 61: 1087–1095.
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5.Cooper JS, Pajak TF, Forastiere AA, Jacobs J, Campbell BH, Saxman SB, et al for the Radiation Therapy Oncology Group 9501/Intergroup Postoperative Concurrent Radiotherapy and Chemotherapy for High-Risk Squamous-Cell Carcinoma of the Head and Neck**.** N Engl J Med 2004; 350: 1937-1944.
6.Forastiere AA, Goepfert H, Maor M, Pajak TF, Weber R, Morrison W, et al. Concurrent Chemotherapy and Radiotherapy for Organ Preservation in Advanced Laryngeal Cancer. N Engl J Med 2003; 349: 2091-2098
7.Pignon JP, Bourhis. J, Domenge C, Designé L, on behalf of the MACH-NC Collaborative Group. Chemotherapy added to locoregional treatment for head and neck squamous-cell carcinoma: three meta-analyses of updated individual data. Lancet (2000); 355 (9208): 949–955.

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/m^2 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

DOCUMENT CONTROL

Version	Date	Amendment	Written By	Approved By
1	Dec 2014	None	Dr Deborah Wright Pharmacist	Dr S Ramkumar Consultant Clinical 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 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.