Chemotherapy Protocol

GYNAECOLOGICAL CANCER

CISPLATIN (40)-RADIOTHERAPY

Regimen

- Cervix-Cisplatin (40)-Radiotherapy

Indication

- Locally advanced cervical, vaginal and vulval cancer with concurrent radiotherapy
- WHO performance status 0, 1, 2

Toxicity

Drug	Adverse Effect
Cisplatin	Neuropathy, nephrotoxicity, ototoxicity, highly emetogenic

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 with calculated creatinine clearance every 7 days (prior to chemotherapy administration)

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;

Criteria	Eligible Level
Haemoglobin	equal to or more than 12g/dL (after transfusion if necessary)
Neutrophil	equal to or more than $1x10^9$/L
Platelets	equal to or more than 100 $x10^9$/L

Haemoglobin levels should be maintained above 12g/dL. Blood transfusions should be given where necessary.

Neutrophils ($x10^9$/L)	Dose Modifications (cisplatin)
1 or greater	100%
less than 1	Delay treatment (radiotherapy to continue), if resolved to $1x10^9$/L or above after 7 days continue at full dose.
Platelets ($x10^9$/L)	**Dose Modifications (cisplatin)**
100 or greater	100%
less than 100	Delay treatment (radiotherapy to continue), if resolved to $100x10^9$/L or greater after 7 days continue at full dose.

Hepatic Impairment

Drug	Bilirubin µmol/L		AST/ALT units	Dose (% of original dose)
Cisplatin	N/A		N/A	No dose adjustment needed

Renal Impairment

Drug	Creatinine Clearance (ml/min)	Dose (% of original dose)
Cisplatin	60 or greater	100%
	45-59	75%
	less than 45	Consider alternative such as carboplatin AUC 2

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 75% of the original dose or discontinued as appropriate.

Regimen

7 day cycle for 5 cycles (concurrently with radiotherapy)

Drug	Dose	Days	Administration
Cisplatin	40mg/m^2 (maximum 70mg)	1	Intravenous infusion in 1000ml sodium chloride 0.9% with 20mmol potassium chloride at a rate of 1mg/min of cisplatin (minimum 60 minutes)

The cisplatin may be started in advance of the radiotherapy. In this instance no more than 9 cycles of treatment should be given.

Dose Information

- Cisplatin will be dose banded according to the CSCCN agreed bands
- The maximum dose of cisplatin is 70mg in this regimen

Administration Information

Extravasation

- Cisplatin – exfoliant

Other

- Radiotherapy should be administered with in 60 minutes of the end of the cisplatin infusion. The post hydration may be interrupted for a short period to facilitate this.

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 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 (OPCS 14-15)

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

References

1. H.M. Keys et al.; Cisplatin, radiation and adjuvant hysterectomy compared with radiation and adjuvant hysterectomy for bulky stage IB cervical carcinoma; N Engl J Med 1999; 1154-61
2. Rose P, Bundy B, Watkins E et al. Concurrent cisplatin-based radiotherapy and chemotherapy for locally advanced cervical cancer.N Engl J Med 1999; 340: 1144 – 53
3. J Dunst, Kuhnt T, Strauss G et al. Anemia in cervical cancers: Impact on survival, patterns of relapse, and association with hypoxia and angiogenesis Int J Rad Oncol Biol Phys 2003; 56 (3): 778 - 787

REGIMEN SUMMARY

Cisplatin (40)-RT

Day One

1. Dexamethasone 8mg oral or 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 the day after chemotherapy
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 chemotherapy

DOCUMENT CONTROL

Version	Date	Amendment	Written By	Approved By
1.1	March 2014	Bolus removed from "intravenous bolus". Metoclopramide dose changed to 10mg from 10-20mg. Instructions added to ondansetron and dexamethasone TTO in the summary. Disclaimer added.	Dr Deborah Wright Pharmacist	Donna Kimber Pharmacy Technician
1	May 2013	None	Rebecca Wills Pharmacist Dr Deborah Wright Pharmacist	Dr Clare Green Consultant Medical Oncologist 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.