Chemotherapy Protocol

LUNG CANCER – SMALL CELL (SCLC)

CARBOPLATIN (AUC6) 6 CYCLES

Regimen

- SCLC - Carboplatin (AUC6) 6 Cycles

Indication

- Second line treatment of small cell lung cancer (SCLC)
- WHO Performance status of 0 or 1

Toxicity

Drug	Adverse Effect
Carboplatin	Neuropathy, hypersensitivity

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

Monitoring

Disease

- A baseline chest x-ray should be performed before starting treatment and up to date (ideally within 1 month) cross section imaging should also be performed

Regimen

- EDTA or calculated creatinine clearance before the first cycle
- FBC, LFTs and U&Es prior to each cycle
- A chest x-ray should be performed before each cycle

Dose Modifications

The dose modifications listed are for haematological, liver and renal function 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. The following is a general guide only.

Haematology

Prior to prescribing on day one of cycle one the following criteria must be met;

Criteria	Eligible Level
Neutrophil	equal to or more than $1x10^9$/L
Platelets	equal to or more than $100x10^9$/L

Consider blood transfusion or the use of erythropoietin according to NICE TA323 if patient symptomatic of anaemia or has haemoglobin of less than 8g/dL (80g/L)

Subsequently, if the neutrophils are less than $1x10^9$/L, in the first instance, delay treatment for 7 days. If counts recover at this point continue at the initial dose. If counts remain low continue with treatment using a 20% dose reduction. If the myelosuppression recurs, despite this dose reduction stop treatment.

If the platelets 50 - $99x10^9$/L, in the first instance, delay treatment for 7 days. If the counts recover at this point continue at the initial dose. If the counts still fall within this range continue using a 20% dose reduction. If the platelet level falls below $50x10^9$/L reduce the dose by 50%.

Hepatic Impairment

Drug	Bilirubin µmol/L		AST/ALT units	Dose (%of original dose)
Carboplatin	No adjustment necessary			

Renal Impairment

Drug	Creatinine Clearance (ml/min)	Dose (% of original dose)
Carboplatin	Less than 20	Do not use
	Changes in the GFR of more than 10% between cycles may require dose adjustment	

Regimen

The starting dose of carboplatin AUC6 is used with calculated GFR. AUC5 may be considered with EDTA clearance, seek advice from the appropriate consultant before prescribing. The recommended maximum dose when using a calculated creatinine clearance at AUC6 is 900mg. If you have an obese patient or an individual with a calculated creatinine clearance above 125ml/min please seek advice from the relevant consultant.

Consider a dose reduction in poor performance patients.

It should be noted that the dose of carboplatin may need to be altered if there is a change (improvement or reduction) in renal function of more than 10% from the previous cycle.

21 day cycle for 6 cycles

Drug	Dose	Days	Administration
Carboplatin	AUC6 (max dose 890mg)	1	Intravenous infusion in 500ml glucose 5% over 60 minutes

Dose Information

- Carboplatin will be dose banded according to the national dose band (10mg/ml)
- The maximum dose for an AUC 6 is 900mg (set as 890mg in ARIA to match the national dose bands)
- If you have an obese patient or an individual with a calculated creatinine clearance above 125ml/min please seek advice from the relevant consultant.
- It should be noted that the dose of carboplatin may need to be altered if there is a change (improvement or reduction) in renal function of more than 10% from the previous cycle.

Administration Information

Extravasation

- Carboplatin - irritant

Additional Therapy

- SCLC can be very sensitive to chemotherapy. This may lead to the development of tumour lysis syndrome at the start of therapy. For those at risk individuals' allopurinol should be prescribed. This should begin the day before chemotherapy treatment and continue for as long as a significant chemosensitive tumour bulk remains. Normally one cycle suffices.
- Antiemetics

  15-30 minutes prior to chemotherapy;

  - ondansetron 8mg oral or intravenous bolus
  - dexamethasone 8mg oral or intravenous bolus

  As take home medication;

- dexamethasone 4mg twice a day for 3 days oral
- metoclopramide 10mg three times a day when required oral

- 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

- Prophylactic antibiotics can be considered if required

References
1. White SC, Lorigan P, Middleton MR et al. Randomized phase II study of cyclophosphamide, doxorubicin and vincristine compared with single agent carboplatin in patients with poor prognosis small cell lung carcinoma. Cancer 2001; 92 (3): 601-8.

REGIMEN SUMMARY

Carboplatin (AUC6) 6 Cycles

Day One

1. Dexamethsone 8mg oral or intravenous bolus
   Administration Instructions
   Administer 15-30 minutes prior to SACT. This may be given as dexamethasone 8mg IV stat or equivalent dose as required

2. Ondansetron 8mg oral or intravenous bolus
   Administration Instructions
   Administer 15-30 minutes prior to SACT. This may be given as ondansetron 8mg IV stat if required.

3. Carboplatin AUC6 intravenous infusion in 500ml glucose 5% over 60 minutes

Take Home Medicines

4. Dexamethasone 4mg twice a day oral for three days starting on day 2 of the cycle
   Administration Instructions
   Take with or after food, starting on day two of the cycle

5. Metoclopramide 10mg three times a day when required oral
   Administration Instructions
   When required for the relief of nausea. Please supply five days or an original pack as appropriate.

DOCUMENT CONTROL

Version	Date	Amendment	Written By	Approved By
1.3	June 2022	Name changed Blood transfusion changed Dose banding changed to national dose bands Dose rounding removed Maximum dose 890mg added Coding removed Administration Instructions changed	Dr Deborah Wright Pharmacist	Donna Kimber Pharmacy Technician
1.2	December 2013	CSCCN removed from header Name changed to Carboplatin (AUC6) Toxicities removed Tables used throughout In regimen initial paragraph on carboplatin dose changed to include maximum dose. Metoclopramide dose changed to 10mg TDS OPCS updated Name added to top of summary page Hospitals and disclaimer added	Dr Deborah Wright Pharmacist	Donna Kimber Pharmacy Technician
1.1	Sept 2010	Font changed to Arial Header altered to include "Strength through Partnership" Drug names given capitals in regimen Extravasation moved to under Administration Information Footer changed to include regimen name and review date removed Standard paragraph added to introduction in dose modifications Dose modifications format (not information) changed Dose information added to reflect super user agreements Granisetron removed from antiemetics Summary page added Document control added	Rebecca Wills Pharmacist	Dr Debbie Wright Pharmacist

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, no responsibility can be taken for errors which occur as a result of following these guidelines.