

PACLITAXEL weekly CARBOPLATIN weekly PACLITAXEL CARBOPLATIN with concurrent RT

INDICATION (ICD10) C34

1. Stage IIIA/IIIB non-small cell lung cancer, unfit for cisplatin and vinorelbine or for those for whom cisplatin is contra-indicated.

Weekly paclitaxel is unlicensed

REGIMEN

Cycles 1 to 7

Drugs can be given in any order

Day 1 Premedication 30 minutes prior to infusion:

Dexamethasone 8mg IV bolus

Chlorphenamine 10mg IV bolus

PACLITAXEL 45mg/m² in #ml sodium chloride 0.9% IV infusion over 60 minutes

CARBOPLATIN AUC 2 in #ml glucose 5% IV infusion over 30 minutes

Dose calculated by EDTA GFR or calculated (CrCl + 25) x AUC.

Cycles 8 and 9 consolidation

Day 1 Premedication 30 minutes prior to infusion:

Dexamethasone 20mg IV bolus

Chlorphenamine 10mg IV bolus

PACLITAXEL 200mg/m² in #ml sodium chloride 0.9% IV infusion over 3 hours

CARBOPLATIN AUC 6 in #ml glucose 5% IV infusion over 30 minutes

Dose calculated by EDTA GFR or calculated (CrCl + 25) x AUC.

diluent volume for dose prescribed as per national standardised product specification

CYCLE FREQUENCY AND NUMBER OF CYCLES

Cycles 1 to 7 every 7 days for 7 cycles

Cycles 8 and 9 every 21 days for 2 cycles

ANTI-EMETICS

Moderate risk day 1

CONCURRENT MEDICATION REQUIRED

Carboplatin	Anaphylaxis treatment should be prescribed if the patient has had an anaphylactic episode previously. Dexamethasone 20mg IV bolus Chlorphenamine 10mg IV bolus Carboplatin should be given at a slower rate e.g. 2-4 hours.
Paclitaxel	Ensure premedication given before paclitaxel

EXTRAVASATION AND TYPE OF LINE / FILTERS

Carboplatin - irritant

Paclitaxel – vesicant

Administer paclitaxel via polyethylene lined or DEHP free administration set with ≤0.22micron filter
Central or peripheral line

INVESTIGATIONS

Blood results required before SACT administration

FBC, U&E including Mg⁺⁺ and LFTs, creatinine day 1

Neutrophils x 10⁹/L ≥1.0 for concurrent RT cycles 1 to 7, ≥1.5 (1.0-<1.5 discuss with consultant) for consolidation cycles 8 and 9

Platelets x 10⁹/L ≥100

GFR assessed using EDTA result or calculated creatinine clearance at the Consultant's discretion.

Baseline weight and every cycle

MAIN TOXICITIES AND ADVERSE REACTIONS

Carboplatin	Ototoxicity – monitor Neurotoxicity - monitor
Paclitaxel	(2% risk of severe hypersensitivity) Reactions range from mild hypotension (light-headedness) to full cardiac collapse (anaphylactic shock). Discontinue infusion and resuscitate appropriate to reaction. If reaction is mild and settles promptly (i.e. within 5-10 minutes), cautiously restart at a slower rate under close supervision. If further reactions occur stop treatment.

INTERACTIONS WHICH MAY REQUIRE DOSE MODIFICATIONS

(not exhaustive list check SPC/BNF/Stockleys)

Paclitaxel	DOACs to be used with caution, need dose modifications or to be avoided eg apixaban. Clopidogrel interacts with paclitaxel, potentially increasing the concentration of paclitaxel. Paclitaxel is catalysed, by cytochrome P450 isoenzymes CYP2C8 and CYP3A4. inhibitors (e.g. erythromycin, fluoxetine, gemfibrozil) use with caution. inducers (e.g. rifampicin, carbamazepine, phenytoin, phenobarbital, efavirenz, nevirapine) use with caution.
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DOSE MODIFICATIONS

Non-haematological

Paclitaxel

If patient complains of tinnitus, tingling of fingers and/or toes or motor weakness discuss with Consultant or Registrar before administration

If grade ≥2 neuropathy, consider paclitaxel dose reduction

If grade >3 peripheral neuropathy is >grade 3 omit further paclitaxel

Hepatic impairment

Paclitaxel

In the absence of Gilbert's syndrome:

Transaminase <10xULN and bilirubin ≤1.25xULN	no dose reduction
Transaminase <10xULN and bilirubin 1.26-2xULN	give 77% of original dose
Transaminase <10xULN and bilirubin 2.01-5xULN	give 51% of original dose
Transaminase ≥10xULN or bilirubin >5xULN	contraindicated

Renal impairment

Carboplatin

GFR / calculated CrCl \leq 20ml/min or \leq 30ml/min with pre-existing severe renal impairment	contraindicated
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REFERENCES

1. RTOG 0617 trial
2. Liang J. et al; Annals of Oncology 28: 777–783, 2017