

## Lancashire & South Cumbria Cancer Network Systemic Anticancer Treatment Protocol

### Drug regimen

Carboplatin/Paclitaxel/Pembrolizumab

### Indications for use

1<sup>st</sup> line treatment of metastatic **squamous** cell lung cancer (NSCLC)

### 3-weekly Regimen:

Premedication (30 min pre chemo)

Chlorphenamine 10mg IV bolus

Ranitidine 50mg in 50ml Sodium Chloride 0.9% IV stat

Dexamethasone 20mg in 100ml Sodium Chloride 0.9% IV stat

**Pembrolizumab** 200mg in 100ml sodium chloride 0.9% IV over 30 minutes

**Paclitaxel** 200mg/m<sup>2</sup> in 500ml Sodium chloride 0.9% over 3 hours

**Carboplatin** AUC6 in 500ml Glucose 5% over 1 hour

Cycles repeated every 3 weeks for 4 cycles (then maintenance Pembrolizumab for up to 2 years)

### Investigations prior to initiating treatment

FBC, U&Es, LFTs, LDH, Ca, glucose, TFTs

Calculated Creatinine clearance

Serum samples for HIV, hep C antibody and HBsAg if risk factors.

Pregnancy test (if applicable)

Weight and vital signs

### Cautions

In the event of severe neuropathy or severe hypersensitivity reactions it might be necessary to discontinue Paclitaxel

The Calvert formula is not considered reliable if the creatinine clearance is <40 ml/min. However, prescribing according to surface area leads to excessive doses. Therefore, even in those patients with renal impairment the Calvert formula will be used and doses modified subsequently up or down depending on blood counts

With immunotherapy patients should be on the lowest clinically effective dose of systemic steroids.

### Investigations and consultations prior to each cycle

ECOG performance status

FBC, U&Es, LFTs, creatinine clearance

TFTs ALTERNATE DOSES or each cycle if abnormal

If serum creatinine raised >20% repeat calculated creatinine clearance before next cycle

Consultation needed prior to each of the first 4 cycles then at least on alternate cycles

## **Acceptable levels for treatment to proceed**

- AST and ALT  $\leq 2.5 \times \text{ULN}$  or  $\leq 5 \times \text{ULN}$  with liver metastases
- Serum total bilirubin  $\leq 1.5 \times \text{ULN}$  or direct bilirubin  $\leq \text{ULN}$  for patient with total bilirubin level  $> 1.5 \text{ ULN}$
- Serum creatinine  $\leq 1.5 \times \text{ULN}$
- Absolute neutrophil count  $> 1.5$  (contact consultant if between 1.2 and 1.5)
- Platelets  $> 100$

## **Check with consultant prior to any deferrals**

### **Side effects**

Immune related adverse reactions

Hypersensitivity reactions

Myalgia

Neuropathy

Alopecia

Nausea and vomiting

Bone marrow suppression

### **Administration Guidelines**

Give pre-medication 30 minutes prior to commencing paclitaxel

Paclitaxel must be given before Carboplatin

Use a non-PVC IV giving set with Paclitaxel

Administer the Pembrolizumab solution using a volumetric pump through an in-line  $0.2\mu\text{m}$  or  $1.2\mu\text{m}$  polyethersulfone or  $0.2\mu\text{m}$  positively charged nylon filter

### **DOSE MODIFICATIONS**

Reduce Paclitaxel dose by 20-30% if neutropenia or neurotoxicity grade 1

Reduce Carboplatin dose by 20% if thrombocytopenia

Do not amend the dose of Pembrolizumab

Consult the [network immunotherapy toxicity guidelines](#) for management of toxicities of Pembrolizumab

**THIS PROTOCOL HAS BEEN DIRECTED BY DR APPEL, CLINICIAN FOR LUNG CANCER**

**RESPONSIBILITY FOR THIS PROTOCOL LIES WITH THE HEAD OF SERVICE**

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