Indication	Mesothelioma NSCLC - 1st line treatment for adenocarcinoma or large-cell carcinoma NSCLC – 2nd line in PDL1 positive disease NSCLC – 3rd line in ALK positive disease NSCLC - 2nd line in EGFR +ve disease in patients not suitable for osimertinib
Treatment Intent	Palliative
Frequency and number of cycles	Every 21 days for up to 6 Cycles
Monitoring parameters pre-treatment	• **Virology screening:** All new patients referred for systemic anti-cancer treatment should be screened for hepatitis B and C and the result reviewed prior to the start of treatment. Patients not previously tested who are starting a new line of treatment, should also be screened for hepatitis B and C. Further virology screening will be performed following individual risk assessment and clinician discretion. • EDTA or Est CrCl should be checked prior to cycle 1, must be >/=45ml/min. • If, during treatment, GFR is reduced by >10% from baseline, discuss with clinician. • If EDTA unavailable carboplatin should be dosed on C&G at a dose of AUC 5. • Monitor FBC, LFT's and U&E's at each cycle. • If WBC >3 and neuts 1.0-1.5 and PLT >/=100 proceed with chemo OR If neuts >1.5 and PLT >100 proceed with chemo. • If blood parameters not met defer chemo 1 week. • Delay of 2 weeks or 2 separate delays warrants DR of 25%. • **Hepatic impairment:** • Carboplatin: No dose adjustment required. • Pemetrexed: d/w consultant in hepatic impairment (bilirubin >1.5 x ULN, AST / ALT > 3 x ULN, or AST/ ALT >5 x ULN if liver involvement), no data available. • **Renal Impairment:** • Carboplatin: stop if CrCl <30ml/min • Pemetrexed: If CrCl <45ml/min discontinue. • Neurotoxicity >/= grade 2 d/w consultant. • For other adverse effects, dose reduction should be considered if grade 3 or 4 non-haematological toxicity or repeat appearance of grade 2 (except N&V and alopecia). Delay until resolution of toxicity to ≤ grade1. • Discontinue if a patient experiences any grade 3 or 4 toxicity after 2 dose reductions. • **Carboplatin Infusion-related reactions:** • Mild/moderate reactions (grade 1-2): If symptoms resolve after treatment with hydrocortisone and chlorphenamine, the infusion may be restarted at 50% rate for 30 mins, then, if no further reaction, increase to 100% rate. • If symptoms do not resolve after treatment with hydrocortisone and chlorphenamine, do not restart the infusion. At consultant's discretion, patients may be rechallenged at a later date with additional prophylaxis. In the event of further reaction (grade 1-3), stop infusion and consider alternative treatment. • Severe (grade 3): Do not restart infusion. Consider alternative treatment.

	• Anaphylaxis (grade 4): Follow anaphylaxis protocol. Discontinue permanently and consider alternative treatment. • **Common drug interactions (for comprehensive list refer to BNF/SPC):** • Potential drug interaction: Concomitant nephrotoxic drugs, probenecid, penicillin, NSAIDs (see SPC) • **Driving / using machinery:** May cause fatigue in some patients and therefore use caution when driving or using machines. • **Notes on adjunctive medication** • The first Vitamin B12 (hydroxocobalamin) injection should be administered in the week preceding first cycle of chemotherapy and once every 3 cycles thereafter (can be given on the same day as pemetrexed). • Folic acid 400 micrograms PO OD should be started 7 days prior to the first dose of pemetrexed and continued until 21 days after last cycle of chemotherapy. • Ensure dexamethasone pre-medication has been taken prior to administering pemetrexed.
Reference(s)	KMCC protocol LUNG-024 V6, SPC accessed on line 16.08.2023

NB For funding information, refer to the CDF and NICE drug funding list

Repeat every 21 days

Day	Drug	Dose	Route	Infusion Duration	Administration Details
Day 1	**PEMETREXED**	500mg/m^2	IV	10 min	100ml Sodium Chloride 0.9% or 5% glucose. (diluent dependent on brand)
	Please ensure 30 minute break between Pemetrexed and Carboplatin administration				
	Ondansetron	<75yrs=16mg ≥75yrs= 8mg	IV	15 min	Sodium chloride 0.9% 50ml
	CARBOPLATIN	**AUC 5 Dose = AUC X (GFR + 25)** Maximum dose 700mg	IV	30 mins	In Glucose 5% 500ml

TTO	Drug	Dose	Route	Directions
Day 1	Dexamethasone	4mg	PO	BD for 5 days starting the day before chemotherapy
	Metoclopramide	10mg	PO	3 times a day for 3 days then 10mg up to 3 times a day when required. Do not take for more than 5 days continuously.
	Folic acid	400 micrograms	PO	OD starting 7 days prior to first dose of pemetrexed and continue until 21 days after last cycle of chemotherapy. Dispense original pack (90 tablets) when required.
Dispense prior to cycle 1 and every 3 cycles thereafter	Vitamin B_{12} injection	1000 micrograms	Intramuscular	First dose in the week preceding cycle 1, then every 3rd cycle for the duration of treatment (PLT must be ≥50 for intramuscular injection). Dispense prior to cycle 1 for first dose.