PEMETREXED maintenance

INDICATION (ICD10) C34

1. Pemetrexed maintenance treatment, following induction chemotherapy with pemetrexed in combination with either carboplatin or cisplatin and when the disease has not progressed immediately after 4 cycles of such chemotherapy, for non-squamous locally advanced or metastatic non-small-cell lung cancer after pemetrexed plus platinum (cisplatin or carboplatin) with or without immunotherapy. PS 0 or 1 at the start of maintenance treatment. (TA402 and TA557)

REGIMEN

Day 1 Pre-medication: Dexamethasone 4mg bd for 3 days (starting the day before chemotherapy)
PEMETREXED 500mg/m^2 in #ml IV infusion over 10 minutes

diluent volume for dose prescribed as per national standardised product specification or licensed dose

CYCLE FREQUENCY AND NUMBER OF CYCLES

Every 21 days until disease progression

ANTI-EMETICS

Low risk day 1

CONCURRENT MEDICATION REQUIRED

Pemetrexed	Ensure premedication taken Dexamethasone 4mg bd for 3 days (starting the day before chemotherapy) Folic acid 400mcg/day orally starting 1 to 3 weeks before chemotherapy continuing until 21 days after the last dose of pemetrexed. Hydroxycobalamin 1000mcg IM every 9 weeks starting 1 to 3 weeks before chemotherapy (give with every 3rd cycle of chemotherapy)

EXTRAVASATION AND TYPE OF LINE / FILTERS

Pemetrexed - inflammatory

Peripheral line

INVESTIGATIONS

Blood results required before SACT administration
FBC, U&E and LFTs every cycle
Neutrophils x 10^9/L ≥1.5
Platelets x 10^9/L ≥100
Serum creatinine every cycle
Baseline weight and every cycle

MAIN TOXICITES AND ADVERSE REACTIONS

Pemetrexed	Skin reactions Pneumonitis

INTERACTIONS WHICH MAY REQUIRE DOSE MODIFICATIONS
(not exhaustive list check SPC/BNF/Stockleys)

Pemetrexed	Aminogycosides – increased risk of nephrotoxicity and ototoxicity NSAIDs Avoid all for at least 5 days prior to and 2 days after pemetrexed dose.

DOSE MODIFICATIONS
Haematological
Pemetrexed
Delay treatment until resolution then treat with appropriate dose modification.
Nadir neutrophils <0.5 and nadir platelets >50 — 75% of previous dose
Nadir platelets ≤50 regardless of nadir neutrophils — 50% of previous dose
Treatment with pemetrexed should be discontinued if a patient experiences any haematologic or non-haematologic Grade 3 or 4 toxicity after 2 dose reductions

Non-haematological
Pemetrexed

Any grade 3 or 4 non-haematological toxicities except mucositis	Give 75% of previous dose
Any diarrhoea requiring hospitalisation (irrespective of grade) or grade 3 or 4 diarrhoea	Give 75% of previous dose
Grade 3 or 4 mucositis	Give 50% of previous dose
Neurotoxicity grade 3 or 4	Discontinue therapy
If a patient experiences any haematological or non-haematological grade 3 or 4 toxicity after 2 dose reductions or immediately if grade 3 or 4 neurotoxicity is observed.	Discontinue therapy

Hepatic impairment
Pemetrexed
Total bilirubin should be ≤1.5xULN.
Alk phos, AST and ALT ≤3xULN. (Alk phos, AST, and ALT ≤5x normal is acceptable if liver has tumour involvement). Clinical decision

Renal impairment
Pemetrexed

CrCl ≤45ml/min	Not recommended

REFERENCES
1. Ciuleanu, T et al; Lancet 2009; 374 (9699): 1432–1440
2. Paz-Ares, L et al; Lancet Oncology 2012; 13 (3): 247-255