PEMBROLIZUMAB (Keytruda)

INDICATION (ICD10) C69

Check the most recent Blueteq eligibility criteria before prescribing. Blueteq registration required. (www.england.nhs.uk/publication/national-cancer-drugs-fund-list/) (PEMB35)

1. Neo-adjuvant followed by adjuvant pembrolizumab for stage III macroscopic cutaneous, acral or mucosal melanoma resectable melanoma, no previous treatment with any of the following treatments: anti-programmed death (PD-1), anti-programmed death ligand-1 (PD-L1), anti-PD-L2, or anti-cytotoxic T lymphocyte associated antigen-4 (anti-CTLA-4) antibodies and complete surgical resection of the tumour and therapeutic lymph node dissection is planned within 3 to 5 weeks of the last dose of neoadjuvant pembrolizumab and adjuvant pembrolizumab is expected to start within 3 months of surgery. PS 0 or 1.

REGIMEN (21 day then 42 day) SC (unlicensed)

Cycle 1
Days 1 and 22 PEMBROLIZUMAB 395mg subcutaneous* (2.4ml) over 1 minute

Cycle 2
Day 1 PEMBROLIZUMAB 395mg subcutaneous* (2.4ml) over 1 minute

Cycles 3 to 9 (after surgery)
Day 1 PEMBROLIZUMAB 790mg subcutaneous* (4.8ml) over 2 minutes

*Into the thigh or abdomen, avoiding the 5cm area around the navel

REGIMEN (21 day then 42 day) IV

Cycle 1
Days 1 and 22 PEMBROLIZUMAB 200mg in 100ml sodium chloride IV infusion over 30 minutes

Cycle 2
Day 1 PEMBROLIZUMAB 200mg in 100ml sodium chloride IV infusion over 30 minutes

Cycles 3 to 9 (after surgery)
Day 1 PEMBROLIZUMAB 400mg in 100ml sodium chloride IV infusion over 30 minutes

CYCLE FREQUENCY AND NUMBER OF CYCLES

Neoadjuvant - every 21 days for 3 doses
Patients should then have surgery (resection of melanoma and lymph node disease) within 3 weeks of the last dose of neoadjuvant pembrolizumab.
Adjuvant therapy should be resumed as soon as safely possible after surgery, however this should not exceed 3 months.
Adjuvant - every 42 days for 7 doses

ADMINISTRATION

Pembrolizumab SC - withdraw the required volume using a transfer needle (18-21G recommended). To avoid needle clogging, change the needle to a 25-30G, 13 mm hypodermic injection needle immediately prior to SC injection.
Do not administer other medicinal products for injection at the same site as the pembrolizumab

ANTI-EMETICS

Minimal risk

CONCURRENT MEDICATION REQUIRED

Pembrolizumab	None required

EXTRAVASATION AND TYPE OF LINE / FILTERS

Pembrolizumab IV – neutral

Pembrolizumab IV use low protein binding 0.2 to 5micron in-line or add-on filter
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
Thyroid function* baseline, then every cycle
Random cortisol baseline, then every cycle (or as specified in Trust guideline)
Random glucose every cycle
Hba1c baseline
Baseline weight and every cycle

MAIN TOXICITES AND ADVERSE REACTIONS

Pembrolizumab	Immune related toxicities - pneumonitis, colitis or hepatitis etc Pembrolizumab SC skin reactions at site of administration route

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

Pembrolizumab	-

DOSE MODIFICATIONS

Non-haematological

Pembrolizumab
Immune-related adverse reactions - refer to TV immune-oncology agent immune related adverse event clinical guideline.
If the drug-related toxicity does not resolve to grade 0-1 within 12 weeks after onset of toxicity, discontinuation is recommended.

Hepatic impairment

Pembrolizumab
No dose adjustment is needed

Renal impairment

Pembrolizumab
No dose adjustment is needed

REFERENCES

1 NHS England » Clinical commissioning policy: Neo-adjuvant followed by adjuvant pembrolizumab for stage III macroscopic resectable melanoma (12 years and older)