

CODE: PEMETREXED MAINT

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A	
REGIMEN NAME	PEMETREXED (Maintenance) Chemotherapy
Cancer	Advanced Non-Small Cell Lung Cancer Palliative Intent
Regimen Category	Core, Not Funded: Standard therapy endorsed by the Disease Site Group but not funded and/or not widely used by most integrated cancer programs in this disease site.
Rationale and Uses	Maintenance monotherapy for patients with locally advanced or metastatic nonsquamous NSCLC, with good performance status and without disease progression, immediately after 4 cycles of first-line platinum doublet therapy, excluding pemetrexed.

B	
DRUG REGIMEN	
PEMETREXED	500mg/m ² IV in 100mL NS over 10 minutes Day 1

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C	
CYCLE FREQUENCY	
REPEAT EVERY 21 DAYS	<i>Continue until unacceptable toxicity or evidence of disease progression</i>

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D	
PREMEDICATION AND SUPPORTIVE MEASURES	
ANTIEMETIC REGIMENS: LOW	<i>Vitamin B₁₂ 1000mcg IM every 9 weeks Folic acid 0.4 - 1.0mg PO daily (both starting ≥ 1 week prior to pemetrexed administration; continue throughout and 3 weeks after last dose of Pemetrexed)</i> <i>Dexamethasone 4mg PO BID for 3 days starting the day before chemotherapy suggested for rash prophylaxis.</i> <i>Note: NSAIDs should be held for 2-5 days prior and 2 days after pemetrexed (refer to pemetrexed monograph)</i>

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E

DOSE MODIFICATION

Doses should be modified according to the protocol by which the patient is being treated. The following recommendations are recommended

Dose Modification for Toxicities

	Pemetrexed (% of previous dose)*
Thrombocytopenic bleeding / febrile neutropenia	50%
Grade 4 ANC or ≥ Grade 3 platelets	75%
Grade 2 neurotoxicity	100%
Grade 3 mucositis	50%
Other grade 3 or any grade diarrhea → hospitalization	75%
Grade 3 neurotoxicity	Discontinue
Grade 4 related organ / non-hematologic toxicity	Discontinue

*Start next cycle only when ANC ≥ 1.5 x 10⁹/L, platelets ≥ 100 x 10⁹/L and related organ/non-hematologic toxicity has recovered to ≤ grade 2

Renal Impairment

Creatinine clearance	Pemetrexed (% of previous dose)
> 80 mL/min	100%
45-79 mL/min	100% but use NSAIDs with extreme caution
< 45 mL/min	Discontinue

Hepatic Impairment

Pemetrexed is not extensively metabolized in the liver. No specific studies have been performed. Pemetrexed should be used with caution in patients with hepatic impairment. No specific recommendations found.

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F**ADVERSE EFFECTS**

Refer to pemetrexed drug monograph for full details of adverse effects.

Most Frequently Occurring Adverse Effects

- Nausea, vomiting
- Myelosuppression ± infection
- Fatigue, anorexia
- Diarrhea, dehydration
- Stomatitis
- Rash (may be severe), radiation recall
- ↑ LFTs
- Neuropathy

Rare but may be severe

- Pneumonitis
- Thromboembolism
- GI ulceration, hemorrhage, perforation
- Hepatic/renal failure
- Hemolysis
- Arrhythmia

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G**INTERACTIONS**

Refer to pemetrexed drug monograph for full details.

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H**DRUG ADMINISTRATION AND SPECIAL PRECAUTIONS**

Refer to pemetrexed drug monograph for full details.

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