

Regimen Monograph

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A - Regimen Name

CRBPPEME+PEMB Regimen

CARBOplatin-Pemetrexed-Pembrolizumab

Disease Site

Lung
Non-Small Cell

Intent

Palliative

**Regimen
Category**

Evidence-informed :

Regimen is considered appropriate as part of the standard care of patients; meaningfully improves outcomes (survival, quality of life), tolerability or costs compared to alternatives (recommended by the Disease Site Team and national consensus body e.g. pan-Canadian Oncology Drug Review, pCODR). Recommendation is based on an appropriately conducted phase III clinical trial relevant to the Canadian context OR (where phase III trials are not feasible) an appropriately sized phase II trial. Regimens where one or more drugs are not approved by Health Canada for any indication will be identified under Rationale and Use.

This **Regimen Abstract** is an **abbreviated** version of a Regimen Monograph and contains only top level information on usage, dosing, schedule, cycle length and special notes (if available). Information in regimen abstracts is accurate to the extent of the ST-QBP regimen master listings, and has not undergone the full review process of a regimen monograph. Full regimen monographs will be published for each ST-QBP regimen as they are developed.

**Rationale and
Uses**

Treatment of metastatic non-squamous, non-small cell lung cancer (NSCLC), in adults with no EGFR or ALK genomic tumour aberrations, and no prior systemic chemotherapy treatment for metastatic NSCLC. Patients should have good performance status (ECOG 0 to 2).

Supplementary [pembrolizumab](#)

Public Funding	New Drug Funding Program (Pembrolizumab - In Combination with Platinum and Pemetrexed for First Line Metastatic Non-Squamous Non-Small Cell Lung Cancer (NSCLC))
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B - Drug Regimen

pembrolizumab ^{1,*}	2 mg /kg	IV (max 200 mg)	Day 1
pemetrexed *	500 mg /m ²	IV	Day 1
CARBOplatin *	AUC 5**	IV	Day 1

¹Dosing based on NDFP funding criteria. Refer to NDFP form for alternative pembrolizumab dosing schedule.

* In the clinical trial, pembrolizumab was given first, then pemetrexed, followed by carboplatin (refer to Gandhi et al).

**Adjust Carboplatin dose to AUC target (using Calvert formula) as outlined in "Other Notes" section.

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C - Cycle Frequency

REPEAT EVERY 21 DAYS for 4 to 6 cycles unless disease progression or unacceptable toxicity occurs

Refer to PEME+PEMB(MNT) for the maintenance phase of treatment.

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D - Premedication and Supportive Measures

Antiemetic Regimen: Moderate + NK1 antagonist (Carboplatin AUC \geq 5)

Other Supportive Care:

Also refer to [CCO Antiemetic Recommendations](#).

Pemetrexed:

- Vitamin B12 1000mcg IM every 9 weeks, Folic acid 0.4 - 1 mg PO daily (both starting ≥ 1 week prior to pemetrexed administration; continue throughout and 3 weeks after last dose of Pemetrexed).
- Dexamethasone 4mg PO BID for 3 days starting day before chemotherapy suggested for rash prophylaxis.
- Note: NSAIDs should be held for 2-5 days prior and 2 days after pemetrexed (refer to pemetrexed monograph)

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J - Administrative Information

Approximate Patient Visit	2-3 hours
Pharmacy Workload (average time per visit)	42.319 minutes
Nursing Workload (average time per visit)	51.667 minutes

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K - References

Gandhi et al. Pembrolizumab plus chemotherapy in metastatic non-small cell lung cancer. N Engl J Med;378(22):2078-92.

PEBC Advice Documents or Guidelines

- [Therapy for Stage IV Non-Small-Cell Lung Cancer Without Driver Alterations: ASCO and OH \(CCO\) Joint Guideline Update](#)

August 2022 Added information for funded alternative pembrolizumab schedule in Drug regimen section

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L - Other Notes**Calvert Formula**

DOSE (mg) = target AUC X (GFR + 25)

- AUC = product of serum concentration (mg/mL) and time (min)
- GFR (glomerular filtration rate) expressed as measured Creatinine Clearance or estimated from Serum Creatinine (by Cockcroft and Gault method or Jelliffe method)

(Calvert AH, Newell DR, Gumbrell LA, et al, Carboplatin dosage: Prospective evaluation of a simple formula based on renal function. J Clin Oncol, 1989; 7: 1748-1756)

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M - Disclaimer

Regimen Abstracts

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Regimen Monographs

Refer to the [New Drug Funding Program](#) or [Ontario Public Drug Programs](#) websites for the most up-to-date public funding information.

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