

Regimen Monograph

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A - Regimen Name

CRBPPEME+PEMB Regimen

CARBOplatin-Pemetrexed-Pembrolizumab

Disease Site Lung
Non-Small Cell

(Non-squamous)

Intent Neoadjuvant

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 Neoadjuvant treatment for previously untreated, resectable early-stage (II, IIIA, or IIIB (N2 stage)) non-small cell lung cancer

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B - Drug Regimen

[pembrolizumab](#) 200 mg IV Day 1

(This drug is not currently publicly funded for this regimen and intent)

[pemetrexed](#) 500 mg /m² IV Day 1

[CARBOplatin](#) AUC 5 to 6 IV Day 1

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C - Cycle Frequency**REPEAT EVERY 21 DAYS**

For 4 cycles unless disease progression or unacceptable toxicity occurs

Refer to PEMB for adjuvant treatment phase.

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D - Premedication and Supportive Measures

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

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

Pembrolizumab Premedication (prophylaxis for infusion reactions):

- Routine pre-medication is not recommended.
- May consider antipyretic and H1-receptor antagonist in patients who experienced a grade 1-2 infusion reaction.

Other Supportive Care:

Screen for hepatitis B virus in all cancer patients starting systemic treatment. Refer to the [hepatitis B virus screening and management](#) guideline.

Avoid the use of corticosteroids or immunosuppressants before starting pembrolizumab treatment.

Pemetrexed:

- Vitamin B12 1000mcg IM every 9 weeks, Folic acid 0.4 - 1 mg PO daily (both starting \geq 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

Wakelee H, Liberman M, Kato T, et al. Perioperative pembrolizumab for early-stage non-small-cell lung cancer. N Engl J Med 2023 Aug 10;389(6):491-503.

August 2024 new ST-QBP regimen

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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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