Regimen Monograph

A - Regimen Name

CRBPGEMC+PEMB Regimen

CARBOplatin-Gemcitabine-Pembrolizumab

Disease Site

Lung
Non-Small Cell

(Squamous)

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

For first-line treatment in patients with metastatic squamous NSCLC who are unable to receive paclitaxel

Supplementary Public Funding	**pembrolizumab** New Drug Funding Program (Pembrolizumab - In Combination with Carboplatin and Paclitaxel for First-Line Metastatic Squamous Non-Small Cell Lung Cancer (NSCLC))

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B - Drug Regimen

pembrolizumab[1]	2 mg /kg	IV (max 200mg)	Day 1
(Prior authorization is required for PDRP funding of this drug within this regimen)			
CARBOplatin	AUC 5**	IV	Day 1
gemcitabine	1000-1250 mg /m²	IV	Days 1 and 8

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

**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 PEMB(MNT) for the maintenance phase of treatment.

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D - Premedication and Supportive Measures

Antiemetic Regimen: Moderate + NK1 antagonist (Carboplatin AUC ≥ 5) (Day 1)
Low (Day 8)

Other Supportive Care:

Also refer to CCO Antiemetic Recommendations.

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

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.

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J - Administrative Information

Approximate Patient Visit	Day 1: 2.75 hours; Day 8: 45 minutes
Pharmacy Workload (average time per visit)	33.34 minutes
Nursing Workload (average time per visit)	45.41667 minutes

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K - References

Paz-Atres L, Luft A, Vicente D, et al. Pembrolizumab plus chemotherapy for squamous non-small-cell lung cancer. N Engl J Med. 2018;379(21):2040-2051. DOI:0.1056/NEJMoa1810865

August 2022 Added information on 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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