Regimen Monograph

Regimen Name | Drug Regimen | Cycle Frequency | Premedication and Supportive Measures | Administrative Information | References | Other Notes | Disclaimer

A - Regimen Name

PACL(DD)+PEMB Regimen

PACLitaxel (Dose Dense)-Pembrolizumab

Disease Site Breast

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 For neoadjuvant treatment of high-risk triple negative breast cancer (TNBC)

Supplementary Public Funding

pembrolizumab
New Drug Funding Program (Pembrolizumab - Previously Untreated High-Risk Early-Stage Triple Negative Breast Cancer) (NDFP Website)

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B - Drug Regimen

After 4 cycles of AC(DD)+PEMB:

PEMB:

pembrolizumab[1]	2 mg /kg	IV (max 200 mg)	Day 1; Every 3 weeks

OR

pembrolizumab[1]	4 mg /kg	IV (max 400 mg)	Day 1; Every 6 weeks

AND

PACL (Dose Dense) for 4 cycles:

PACLitaxel	175 mg /m²	IV	Day 1; Every 2 weeks

[1]Give pembrolizumab before chemotherapy when given on the same day.

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C - Cycle Frequency

PACL(DD): Repeat every 14 days for 4 cycles, unless disease progression or unacceptable toxicity occurs

Pembrolizumab: Repeat every 3 weeks (2 mg/kg) or every 6 weeks (4 mg/kg) during neoadjuvant chemotherapy, unless disease progression or unacceptable toxicity occurs

Refer to PEMB for the adjuvant pembrolizumab monotherapy phase.

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D - Premedication and Supportive Measures

Antiemetic Regimen: Low

Febrile Neutropenia Risk: High

Primary prophylaxis with G-CSF is indicated for AC-PACL(DD). Refer to the Febrile neutropenia guideline.

Also refer to CCO Antiemetic Recommendations.

Pre-medications (prophylaxis for infusion reaction):

Pembrolizumab:

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

Paclitaxel*:

- Dexamethasone 20 mg PO 12-and 6-hours OR Dexamethasone 20 mg IV 30 minutes pre-infusion†
- Diphenhydramine 25-50 mg IV/PO 30-60 minutes pre-infusion
- Ranitidine 50 mg IV OR Famotidine 20 mg IV 30-60 minutes pre-infusion

* Consider **discontinuing** pre-medications for paclitaxel if there was no IR in the first 2 doses.

† Oral and IV dexamethasone are both effective at reducing overall IR rates. Some evidence suggests that oral dexamethasone may be more effective for reducing severe reactions; however, adverse effects and compliance remain a concern.

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J - Administrative Information

Approximate Patient Visit	5 hours
Pharmacy Workload (average time per visit)	27.913 minutes
Nursing Workload (average time per visit)	49.833 minutes

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K - References

CADTH Reimbursement recommendation - Pembrolizumab: For the treatment of adult patients with high-risk early-stage triple negative breast cancer. September 2022.

Citron M, Berry D, Cirrincione C, et al. Randomized trial of dose dense versus conventionally scheduled and sequential versus concurrent combination chemotherapy as postoperative adjuvant treatment of node-positive primary breast cancer: First Report of Intergroup Trial C9741/Cancer and Leukemia Group B trial 9741. J Clin Oncol; 2003 Apr 15. 21(8): 1431-1439.

Paclitaxel and pembrolizumab drug monographs, Ontario Health (Cancer Care Ontario).

Schmid J, Cortes L, Pusztai L, et al. Pembrolizumab for early triple-negative breast cancer. N Engl J Med 2020;382:810-21.

Schmid P, Cortes J, Dent R, et al. Event-free survival with pembrolizumab in early triple-negative breast cancer. N Engl J Med 2022;386:556-67.

PEBC Advice Documents or Guidelines

- Optimal Systemic Therapy for Early Female Breast Cancer

September 2023 Updated the "Administrative Information" section with pharmacy and nursing workload.

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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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