Regimen Monograph

A - Regimen Name

AC(DD)+PEMB Regimen

DOXOrubicin-Cyclophosphamide (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) in patients* without prior systemic therapy for non-metastatic TNBC

*with good performance status and no clinical contraindication for immunotherapy

Supplementary Public Funding	**pembrolizumab** New Drug Funding Program (Pembrolizumab - Previously Untreated High-Risk Early-Stage Triple Negative Breast Cancer)

back to top

B - Drug Regimen

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

AC (Dose Dense) for 4 cycles:

DOXOrubicin	60 mg /m²	IV	Day 1; Every 2 weeks
cyclophosphamide	600 mg /m²	IV	Day 1; Every 2 weeks

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

back to top

C - Cycle Frequency

AC(DD): Repeat every 14 days for 4 cycles

Pembrolizumab: Repeat every 3 weeks (2 mg/kg) or every 6 weeks (4 mg/kg) during neoadjuvant chemotherapy

Followed by neoadjuvant PACL(DD)+PEMB for 4 cycles, unless disease progression or unacceptable toxicity occurs.

back to top

D - Premedication and Supportive Measures

Antiemetic Regimen:	High
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.

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

back to top

J - Administrative Information

Approximate Patient Visit	2 hours
Pharmacy Workload (average time per visit)	39.814 minutes
Nursing Workload (average time per visit)	57.333 minutes

back to top

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.

Cyclophosphamide, doxorubicin, 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

back to top

M - Disclaimer

Regimen Abstracts

A 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). It is intended for healthcare providers and is to be used for informational purposes only. It is not intended to constitute or be a substitute for medical advice, and all uses of the Regimen Abstract are subject to clinical judgment. Such information is provided on an "as-is" basis, without any representation, warranty, or condition, whether express, or implied, statutory or otherwise, as to the information's quality, accuracy, currency, completeness, or reliability, and Cancer Care Ontario disclaims all liability for the use of this information, and for any claims, actions, demands or suits that arise from such use.

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.

Regimen Monographs

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

The information set out in the drug monographs, regimen monographs, appendices and symptom management information (for health professionals) contained in the Drug Formulary (the "Formulary") is intended for healthcare providers and is to be used for informational purposes only. The information is not intended to cover all possible uses, directions, precautions, drug interactions or adverse effects of a particular drug, nor should it be construed to indicate that use of a particular drug is safe, appropriate or effective for a given condition. The information in the Formulary is not intended to constitute or be a substitute for medical advice and should not be relied upon in any such regard. All uses of the Formulary are subject to clinical judgment and actual prescribing patterns may not follow the information provided in the Formulary.

The format and content of the drug monographs, regimen monographs, appendices and symptom management information contained in the Formulary will change as they are reviewed and revised on a periodic basis. The date of last revision will be visible on each page of the monograph and regimen. Since standards of usage are constantly evolving, it is advised that the Formulary not be used as the sole source of information. It is strongly recommended that original references or product monograph be consulted prior to using a chemotherapy regimen for the first time.

Some Formulary documents, such as the medication information sheets, regimen information sheets and symptom management information (for patients), are intended for patients. Patients should always consult with their healthcare provider if they have questions regarding any information set out in the Formulary documents.

While care has been taken in the preparation of the information contained in the Formulary, such information is provided on an “as-is” basis, without any representation, warranty, or condition, whether express, or implied, statutory or otherwise, as to the information’s quality, accuracy, currency, completeness, or reliability.

CCO and the Formulary’s content providers shall have no liability, whether direct, indirect, consequential, contingent, special, or incidental, related to or arising from the information in the Formulary or its use thereof, whether based on breach of contract or tort (including negligence), and even if advised of the possibility thereof. Anyone using the information in the Formulary does so at his or her own risk, and by using such information, agrees to indemnify CCO and its content providers from any and all liability, loss, damages, costs and expenses (including legal fees and expenses) arising from such person’s use of the information in the Formulary.

back to top