

Regimen Monograph

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A - Regimen Name

## CRBPFU+PEMB Regimen

CARBOplatin-Fluorouracil-Pembrolizumab

## FU+PEMB Regimen

Fluorouracil-Pembrolizumab

**Disease Site**      Gastrointestinal  
                                 Gastric / Stomach

**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**      First-line treatment in patients with locally advanced unresectable or metastatic HER2-negative gastric adenocarcinoma

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## B - Drug Regimen

### Cycles 1 to 6:

<a href="#">pembrolizumab</a> <sup>1,2</sup>	200 mg	IV	Day 1
(This drug is not currently publicly funded for this regimen and intent)			
<a href="#">CARBOplatin</a>	AUC 4 to 5	IV	Day 1
<a href="#">fluorouracil</a>	800 mg /m <sup>2</sup> /day	IV as continuous infusion	Days 1 to 5

### Cycles 7 and onwards:

<a href="#">pembrolizumab</a> <sup>1,2</sup>	200 mg	IV	Day 1
(This drug is not currently publicly funded for this regimen and intent)			
<a href="#">fluorouracil</a> *	800 mg /m <sup>2</sup> /day	IV as continuous infusion	Days 1 to 5

\*May continue with PEMB(MNT) if fluorouracil is discontinued. Refer to PEMB(MNT) regimen for details.

<sup>1</sup>Alternative pembrolizumab dosing schedule is 400 mg IV q6 weeks.

<sup>2</sup>Give pembrolizumab before chemotherapy when given on the same day.

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## C - Cycle Frequency

**CRBPFU or FU:** Repeat every 21 days

**PEMBROLIZUMAB:** Repeat every 21 days (200 mg dose)<sup>†</sup>

For 6 cycles of CRBPFU+PEMB<sup>^</sup>, followed by FU+PEMB<sup>^</sup> for up to 2 years (including initial CRBPFU+PEMB cycles), unless disease progression or unacceptable toxicity.

<sup>^</sup>If chemotherapy is discontinued after at least 1 cycle due to intolerance, pembrolizumab may be continued as single agent (PEMB(MNT)) for up to 2 years, unless disease progression or unacceptable toxicity.

<sup>†</sup>Alternative pembrolizumab dosing schedule is 400 mg IV q 6 weeks.

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## D - Premedication and Supportive Measures

**Antiemetic Regimen:** Moderate + NK1 antagonist (Carboplatin AUC  $\geq$  5) (Cycles 1-6)  
Moderate (Carboplatin AUC < 5) (Cycles 1-6)  
Low (Cycles 7+)

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

### **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:**

- Also refer to [CCO Antiemetic Recommendations](#).
- Avoid the use of corticosteroids or immunosuppressants before starting pembrolizumab treatment.

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## J - Administrative Information

### Approximate Patient Visit

**CRBPFU+PEMB** 2 hours; 5FU only: 0.5 hour

**FU+PEMB** 0.5 hour

### Pharmacy Workload (average time per visit)

**CRBPFU+PEMB** 41.295 minutes

**FU+PEMB** 22.05 minutes

### Nursing Workload (average time per visit)

**CRBPFU+PEMB** 69.167 minutes

**FU+PEMB** 45 minutes

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## K - References

Carboplatin drug monograph. Ontario Health (Cancer Care Ontario).

Fluorouracil drug monograph. Ontario Health (Cancer Care Ontario).

Pembrolizumab drug monograph. Ontario Health (Cancer Care Ontario).

Rha SY, Oh DY, Yañez P, et al. Pembrolizumab plus chemotherapy versus placebo plus chemotherapy for HER2-negative advanced gastric cancer (KEYNOTE-859): a multicentre, randomised, double-blind, phase 3 trial. *Lancet Oncol* 2023 Nov;24(11):1181-95. doi: 10.1016/S1470-2045(23)00515-6.

**May 2024** new ST-QBP regimen

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## L - Other Notes

### **DPD Deficiency Testing and Guidance:**

Patients should be tested for DPD deficiency before starting treatment with fluorouracil. Refer to the [DPD Deficiency Guidance for Clinicians](#) for more information.

In patients with unrecognized DPD deficiency, acute, life-threatening toxicity may occur; if acute grade 2-4 toxicity develops, treatment should be stopped immediately and permanent discontinuation considered based on clinical assessment of the toxicities.

### **Antidote for Fluorouracil Overdose:**

**Uridine triacetate** is a prodrug of uridine and is a specific antidote for treating fluorouracil overdose or severe early onset toxicities. If available, consider administering as soon as possible (i.e. within 96 hours) for suspected overdose. If not available, treatment is symptomatic and supportive.

For usage approval and supply, contact Health Canada's [Special Access Program](#) (SAP) (Phone: 613-941-2108. On-call service is available for emergencies). Uridine triacetate (Vistogard®) is supplied by its manufacturer in the United States.

The recommended dosing and administration for **uridine triacetate** in patients ≥18 years is:

- 10 grams (1 packet of coated granules) orally every 6 hours for 20 doses in total, without regards to meals.
- Granules should not be chewed. They should be mixed with 3 to 4 ounces of soft foods such as applesauce, pudding or yogurt.
- The dose should be ingested within 30 minutes of preparation, followed by at least 4 ounces of water.
- Refer to the prescribing information on dose preparation for NG-tube or G-tube use.

Additional resources on the management of fluorouracil infusion overdose:

- [Management of Fluorouracil Infusion Overdose Guideline](#) (Alberta Health Services)
- [Management of Fluorouracil Infusion Overdose at the BCCA - Interim Guidance](#) (BC Cancer Agency)

### **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**

*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.*

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