Regimen Monograph

Regimen Name | Drug Regimen | Cycle Frequency | Premedication and Supportive Measures | Dose Modifications | Adverse Effects | Interactions | Drug Administration and Special Precautions | Recommended Clinical Monitoring | Administrative Information | References | Other Notes | Disclaimer

A - Regimen Name

CRBP(DESENS) Regimen

CARBOplatin (Desensitization)

Disease Site

Gynecologic - Ovary

Intent

Adjuvant
Curative
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 the ambulatory administration of carboplatin through a 12 to 16-step graduated rate infusion (as part of a desensitization protocol) in patients who have had a grade 3 or higher infusion reaction previously.

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B - Drug Regimen

CARBOplatin	AUC 4-6	IV	Day 1

May 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 a usual total of 6 to 8 cycles unless disease progression or unacceptable toxicity occurs

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D - Premedication and Supportive Measures

Antiemetic Regimen: Moderate (Carboplatin AUC < 5)
Moderate + NK1 antagonist (Carboplatin AUC ≥ 5)

Other Supportive Care:

Also refer to CCO Antiemetic Recommendations.

Refer to the CCO guideline for detailed description of Management of Cancer Medication-Related Infusion Reactions

Infusion Reaction Prophylaxis:

- H1-receptor antagonist (e.g. diphenhydramine or a non-sedating equivalent)
- H2-receptor antagonist (e.g. ranitidine)
- Corticosteroid (e.g. dexamethasone)
- Montelukast 10 mg
- ASA (e.g. 500 mg, or the dose that is commercially available, such as 325 mg)

Beta-blockers and ACE-inhibitors should be held for 24 hours before initiating the desensitization protocol, as they may interfere with the action of rescue medications if an IR occurs during the desensitization process.

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H - Drug Administration and Special Precautions

Refer to CARBOplatin drug monograph(s) for additional details

Administration

Refer to the CCO Management of Cancer Medication-Related Infusion Reactions guideline for a detailed description of Desensitization protocols.

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J - Administrative Information

Approximate Patient Visit	7-8 hours
Pharmacy Workload (average time per visit)	107.3 minutes
Nursing Workload (average time per visit)	480 minutes

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K - References

Castells MC, Tennant NM, Sloane DE, et al. Hypersensitivity reactions to chemotherapy: outcomes and safety of rapid desensitization in 413 cases. J Allergy CLin Immunol 2008;122:574-80.

Castells M. Drug hypersensitivity and anaphylaxis in cancer and chronic inflammatory diseases: The role of desensitizations. Front. Immunol. 2017;8(NOV):1–11.

Chung SJ, Kang SY, Kang RY, et al. A new non-dilution rapid desensitization protocol successfully applied to all-grade platinum hypersensitivity. Cancer Chemother. Pharmacol. 2018;82:777–785.

Lee CW, Matulonis UA, Castells MC. Rapid inpatient/outpatient desensitization for chemotherapy hypersensitivity: standard protcol effective in 57 patients for 255 courses. Gynecologic Oncology 2005;99:393-399.

Sloane D, Govindarajulu U, Harrow-Mortelliti J, et al. Safety, costs, and efficacy of rapid drug desensitizations to chemotherapy and monoclonal antibodies. J. Allergy Clin. Immunol. Pract. 2016;4(3):497–504.

March 2020 New ST-QBP regimen for carboplatin desensitization in the outpatient setting.

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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)

To avoid toxicity, FDA recommends capping the carboplatin dose for a desired AUC. The maximum dose is based on a capped GFR estimate at 125 mL/min for patients with normal renal function:

Maximum Carboplatin Dose (mg) = target AUC (mg/mL per min) x (125 mL/min + 25)

For a target AUC = 6, the maximum dose is 6 x 150 = 900 mg

For a target AUC = 5, the maximum dose is 5 x 150 = 750 mg

For a target AUC = 4, the maximum dose is 4 x 150 = 600 mg

(U.S. Food and Drug Administration, Center for Drug Evaluation and research. Carboplatin dosing. 10 October 2010)

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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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