Regimen Monograph

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

A - Regimen Name

GDCRBP+RITU Regimen

Gemcitibine-Dexamethasone-CARBOplatin-riTUXimab

Disease Site

Hematologic
Lymphoma - Non-Hodgkin's High Grade
Lymphoma - Non-Hodgkin's Intermediate Grade

Intent

Curative

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.

Rationale and Uses

As an alternative to GDP+R for patients who are unable to receive cisplatin, for the treatment of relapsed aggressive histology CD20+ lymphoma with intent to proceed to autologous stem cell transplantation, who were previously treated with rituximab-based chemoimmunotherapy (e.g., R-CHOP) for aggressive histology lymphoma and had a best response of at least partial response

Supplementary Public Funding

riTUXimab
New Drug Funding Program (Rituximab (Biosimilar IV) and Rituximab SC - Retreatment - Aggressive Histology Lymphoma)

dexamethasone

ODB - General Benefit (dexamethasone) (ODB Formulary)

riTUXimab (subcut)
New Drug Funding Program (Rituximab (Biosimilar IV) and Rituximab SC - Retreatment - Aggressive Histology Lymphoma) (NDFP Website)

back to top

B - Drug Regimen

Note: Different rituximab products are NOT INTERCHANGEABLE.

Cycle 1: All patients must receive their first dose of rituximab by IV infusion.

dexamethasone*	40 mg	PO	Days 1 to 4

*(On Day 1 to be given as part of premedication before riTUXimab)

riTUXimab	375 mg /m²	IV	Day 1
gemcitabine	1000 mg /m²	IV	Days 1 and 8
CARBOplatin	AUC 5	IV	Day 1

Cycle 2 and onwards [total of 2 to 3 cycles (refer to Cycle Frequency section), including initial IV rituximab cycle(s)]:

Rituximab IV:

riTUXimab	375 mg /m²	IV	Day 1

OR

Rituximab (subcut):
The subcutaneous formulation must only be given at the second or subsequent cycles, and only after at least one full rituximab IV dose.

riTUXimab (subcut)	1400 mg	Subcut	Day 1

Plus GDP chemotherapy:

dexamethasone*	40 mg	PO	Days 1 to 4

*(On Day 1 to be given as part of premedication before riTUXimab)

gemcitabine	1000 mg /m²	IV	Days 1 and 8
CARBOplatin	AUC 5	IV	Day 1

back to top

C - Cycle Frequency

REPEAT EVERY 21 DAYS

- If complete or partial response occurs after 2 cycles, may proceed to autologous stem cell transplant (ASCT). May receive a third cycle if patient has not achieved a complete or partial response after 2 cycles*.

*rituximab (IV and subcut combined) funded by NDFP for up to 3 cycles

back to top

D - Premedication and Supportive Measures

Antiemetic Regimen: Moderate + NK1 antagonist (Carboplatin AUC ≥ 5) (D1)
Low (D8)

Febrile Neutropenia Risk: Moderate

Other Supportive Care:

- Also refer to CCO Antiemetic Recommendations.
- If high volume disease, consider prophylaxis for tumour lysis.
- HBsAg positive patients should receive antiviral prophylaxis during and after rituximab. HBsAg negative, but HBcAb positive patients should be considered for antiviral prophylaxis and be closely monitored for viral reactivation by a HBV expert.
- The day 1 dexamethasone dose can be given IV before chemotherapy to prevent emesis and infusion reactions.

- Consider use of filgrastim to maintain dose intensity for patients at high risk of febrile neutropenia or prolonged neutropenia.

Premedication (prophylaxis for infusion reactions):

Administer at least 30 minutes prior to rituximab:

- Oral antipyretic (e.g. acetaminophen)
- H1-receptor antagonist (e.g. diphenhydramine)
- Give day 1 dexamethasone as part of pre-medication before rituximab
- In patients receiving **subcut rituximab** who experienced adverse effects with pre-medications, the omission of pre-medications can be considered.

back to top

J - Administrative Information

Approximate Patient Visit	Day 1: Up to 5-7 hours (first cycle); 4-6 hours (subsequent cycles); Day 8: 0.75 hour
Pharmacy Workload (average time per visit)	19.618 minutes
Nursing Workload (average time per visit)	57.417 minutes

back to top

K - References

Carboplatin, rituximab and gemcitabine drug monographs, Cancer Care Ontario.

Crump M, Baetz T, Couban S, et al. Gemcitabine, dexamethasone, and cisplatin in patients with recurrent or refractory aggressive histology b-cell non-Hodgkin lymphoma. Cancer 2004;101(8):1835-42.

Crump M, Kuruvilla J, Couban S, et al. Randomized comparison of gemcitabine, dexamethasone, and cisplatin versus dexamethasone, cytarabine, and cisplatin chemotherapy before autologous stem-cell transplantation for relapsed and refractory aggressive lymphomas: NCIC-CTG LY.12. J Clin Oncol 2014 Nov 1;32(31):3490-6.

Gopal AK, Press OW, Shustov AR, et al. Efficacy and safety of gemcitabine, carboplatin, dexamethasone, and rituximab in patients with relapsed/refractory lymphoma: a prospective multi-center phase II study by the Puget Sound Oncology Consortium. Leuk Lymphoma. 2010 Aug;51(8):1523-9.

Lugtenburg P, Avivi I, Berenschot H et al. Efficacy and safety of subcutaneous and intravenous

rituximab plus cyclophosphamide, doxorubicin, vincristine, and prednisone in first-line diffuse large B-cell lymphoma: the randomized MabEase study. Haematologica. 2017;102(11):1913-1922.

Naka R, Tada K, Kaneko H, et al. Effectiveness and safety of R-GCD (rituximab, gemcitabine, carboplatin, and dexamethasone) for transplant-ineligible relapse/refractory diffuse large B-cell lymphoma and grade 3a follicular lymphoma: a retrospective analysis comparing with R-GDP (rituximab, gemcitabine, cisplatin, and dexamethasone). Leuk Lymphoma 2022 Feb 2:1-4.

Rummel M, Kim TM, Aversa F et al. Preference for subcutaneous or intravenous administration of rituximab among patients with untreated CD20+ diffuse large B-cell lymphoma or follicular lymphoma: results from a prospective, randomized, open-label, crossover study (PrefMab). Ann Oncol. 2017;28(4):836-842.

back to top

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)

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