Regimen Monograph

A - Regimen Name

ICE+RITU Regimen

Ifosfamide (with Mesna)-Carboplatin-Etoposide-riTUXimab

Disease Site

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

Intent

Adjuvant
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.

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 treatment of relapsed aggressive histology CD20+ lymphoma with intent to proceed to autologous stem cell transplantation.
- Patients must have been previously treated with rituximab-based chemoimmunotherapy (e.g., R-CHOP) for aggressive histology lymphoma and had a best response of at least partial response (PR).

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

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B - Drug Regimen

Adapted for outpatient administration

Note: Different rituximab products are NOT INTERCHANGEABLE.

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

riTUXimab	375 mg /m²	IV	Day 1
ifosfamide	1667 mg /m²	IV	Days 1 to 3

together with:

mesna	1667 mg /m²	IV	Days 1 to 3

THEN:

mesna	2000 mg	PO	Days 1 to 3; 2 and 6 hours after each ifosfamide dose
CARBOplatin	AUC 5	IV	Day 1
etoposide	100 mg /m²	IV	Days 1 to 3

Cycle 2 and onwards (for a total of 2-3 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 ICE chemotherapy:

ifosfamide	1667 mg /m²	IV	Days 1 to 3

together with:

mesna	1667 mg /m²	IV	Days 1 to 3

THEN:

mesna	2000 mg	PO	Days 1 to 3; 2 and 6 hours each ifosfamide dose
CARBOplatin	AUC 5	IV	Day 1
etoposide	100 mg /m²	IV	Days 1 to 3

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C - Cycle Frequency

REPEAT EVERY 21

After 2-3 cycles, responding patients may be considered for high-dose chemotherapy and autologous stem cell transplant.

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D - Premedication and Supportive Measures

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

Other Supportive Care:

Filgrastim is given after each chemotherapy cycle (refer to references).

Also refer to CCO Antiemetic Recommendations.

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J - Administrative Information

Pharmacy Workload (average time per visit)	33.243 minutes
Nursing Workload (average time per visit)	50.837 minutes

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K - References

Hertzberg MS, Crombie C, Benson W, et al. Outpatient-based ifosfamide, carboplatin and etoposide (ICE) chemotherapy in transplant-eligible patients with non-Hodgkin's lymphoma and Hodgkin's disease. Ann Oncol. 2003;14 Suppl 1:i11-6.

Hertzberg MS, Crombie C, Benson W, et al. Outpatient fractionated ifosfamide, carboplatin and etoposide as salvage therapy in relapsed and refractory non-Hodgkin's and Hodgkin's lymphoma. Ann Oncol. 2006 May;17 Suppl 4:iv25-30.

Kewalramani T, Zelenetz AD, Nimer SD, et al. Rituximab and ICE as second-line therapy before autologous stem cell transplantation for relapsed or primary refractory diffuse large B-cell lymphoma. Blood 2004;103:3684-8.

Moskowitz CH, Bertino JR, Glassman JR, et al. Ifosfamide, Carboplatin, and Etoposide: A highly effective cytoreduction and peripheral-blood progenitor-cell mobilization regimen for transplant-eligible patients with non-Hodgkin’s lymphoma. J Clin Oncol 1999;17:3776-85.

Zelenetz AD, Hamlin P, Kewalramani T, et al. Ifosfamide, carboplatin, etoposide (ICE)-based second-line chemotherapy for the management of relapsed and refractory aggressive non-Hodgkin's lymphoma. Ann Oncol 2003;14 Suppl 1:i5-10.

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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.

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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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.

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