Health Care Resource Utilization in the Management of Patients with Relapse/Refractory Mantle Cell Lymphoma in Canada

EE355

Guinan K[1], Ham M[1], Singh H[2], Paul Roc N[2], Patel H[2], Anglin P[3], Lemieux C[4], Manzoor BS[5], Barakat S[2], Lachaine J[1]

[1]PeriPharm Inc., Montreal, QC, Canada, [2]AbbVie Corporation, QC, Canada, [3]Southlake Regional Health Centre, Newmarket, ON, Canada, [4]CHU de Québec – Université Laval, Quebec, QC, Canada, [5]AbbVie Inc., North Chicago, IL 60064, United States

Presented at ISPOR 2025 Annual Congress, May 13-16, Montreal, Quebec, Canada

INTRODUCTION

- In 2024, it was estimated that 11,700 Canadians will be diagnosed with non-Hodgkin lymphoma, with 5% to 10% of these cases representing are mantle cell lymphoma (MCL).[1,2]
- Relapsed/refractory MCL (R/R-MCL) represents a particularly challenging subset of MCL, characterized by either the recurrence of the disease after initial remission or the persistence of the disease despite treatment. This phase is often associated with a poorer prognosis and a more aggressive disease course.
- Venetoclax, a selective and orally bioavailable small-molecule inhibitor of B-cell lymphoma-2, in combination with Ibrutinib, a Bruton's tyrosine kinase inhibitor (BTKis), (V+I) was evaluated for the treatment of R/R-MCL in the SYMPATICO trial.[3]
- Currently, there are no Canadian healthcare resource utilization (HCRU) studies published in R/R-MCL. There is a need to determine the burden of illness associated with V+I in the treatment of R/R-MCL compared to current standard of care and future anticipated treatments.

OBJECTIVES

- This study aims to estimate HCRU costs of V+I compared to current treatment options used for R/R-MCL, to inform health technology assessment agencies, institutional decision makers and healthcare professionals, from a Canadian and Quebec perspective.

METHODS

- A costing analysis was developed comparing V+I to current treatment options in Canadian and Quebec patients with R/R-MCL.
- **Comparators:** divided by line of treatment for R/R-MCL
  - Second-line (2L): BTKis and chemo-immunotherapy (CIT)*
  - Third-line (3L): brexucabtagene autoleucel (brexu-cel), venetoclax, lenalidomide and allogeneic stem cell transplant (allo-SCT) in addition to BTKis.
- **Time horizon**: treatment-specific median durations.
- **Perspective/costs**: Canadian and Quebec perspectives
  - Healthcare system: direct medical costs (pretreatment, administration/monitoring and adverse event)
  - Societal: direct and indirect costs (i.e., patient and caregiver lost productivity and out-of-pocket costs)
- Acquisition costs of active treatments were excluded.
- Model inputs were retrieved from product labels and were validated by Canadian clinical experts to reflect practice.

*Note: CITs are rarely used and are reserved for a small proportion of patients who are BTKi-resistant.

RESULTS

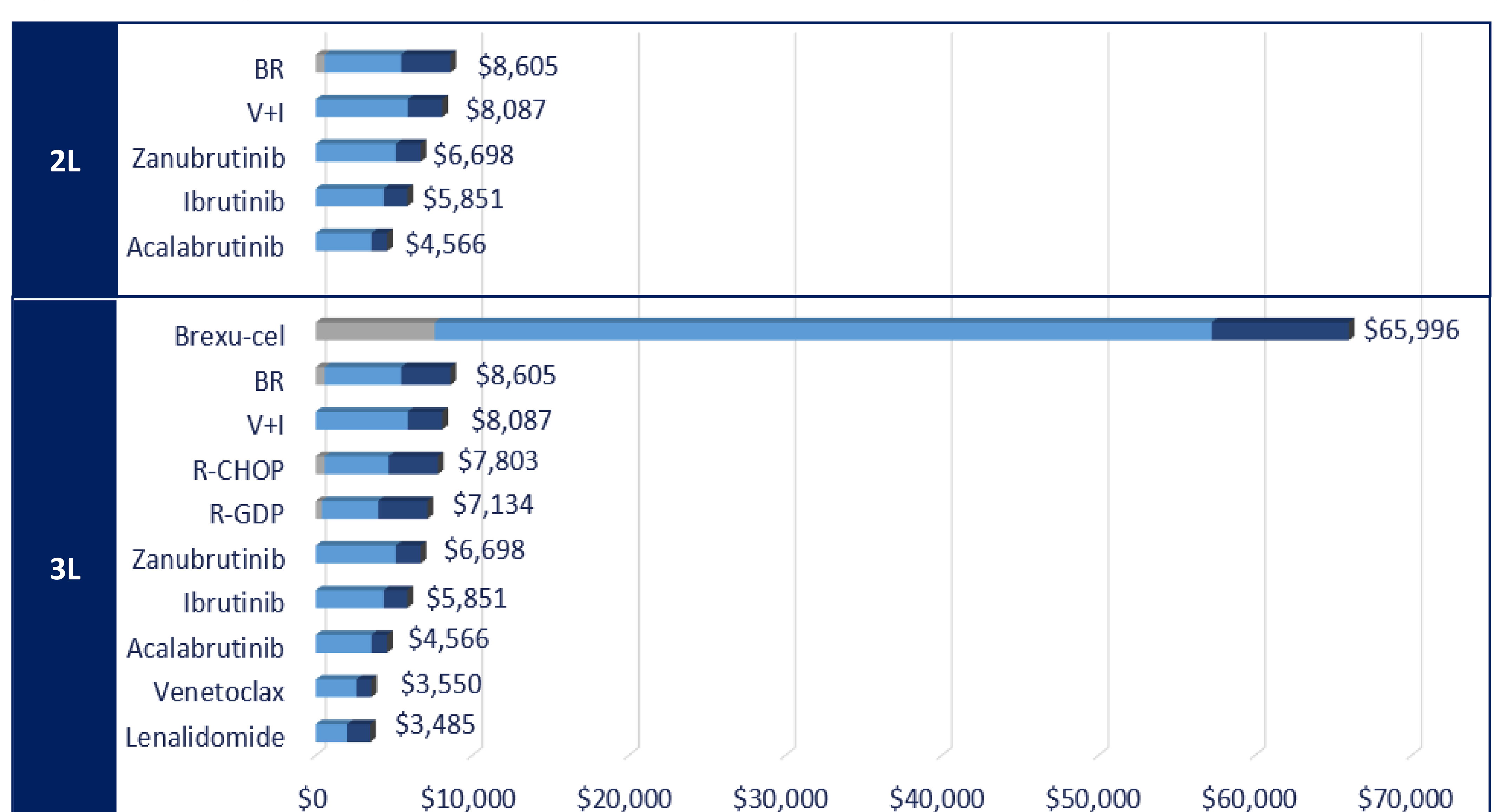
- Compared to ibrutinib, the only reimbursed BTKi in 2L, the addition of venetoclax to ibrutinib as a combination therapy generates additional HCRU cost of $2,236 in Canada and $1,929 in Quebec, while providing a longer median progression-free survival (PFS), as demonstrated in the SYMPATICO trial (V+I: 31.9 months vs ibrutinib: 22.1 months).
- Among 2L treatments, V+I offers HCRU cost savings compared to CITs (**Table 1 & Figure 1**).
- The highest HCRU cost burden in managing R/R-MCL is sourced from patients receiving 3L therapies.
- Among all treatments in 3L, brexu-cel and allo-SCT lead to the highest HCRU costs (**Table 1 & Figure 1**).
- Results remain similar for the Quebec setting and from a societal perspective.

Table 1. Total HCRU Costs of Treatments for R/R-MCL in Canada

Treatments	Pre-medications	Administration	Adverse Events	Productivity Loss	Healthcare system		Societal	
					Total Costs	Difference vs. V+I	Total Costs	Difference vs. V+I
2L+								
V+I	$0	$5,880	$2,207	$5,639	$8,087	-	$13,726	-
Ibrutinib	$0	$4,342	$1,509	$3,144	$5,851	**$2,236**	$8,995	$4,732
Zanubrutinib	$0	$5,117	$1,581	$4,116	$6,698	$1,389	$10,814	$2,912
Acalabrutinib	$0	$3,567	$1,000	$2,468	$4,566	$3,521	$7,034	$6,692
BR	$576	$4,885	$3,145	$11,809	$8,605	-$519	$20,414	-$6,688
3L+								
Venetoclax	$0	$2,597	$953	$3,133	$3,550	$4,537	$6,683	$7,043
R-CHOP	$576	$4,082	$3,145	$8,389	$7,803	$284	$16,192	-$2,465
R-GDP	$384	$3,605	$3,145	$6,768	$7,134	$953	$13,902	-$176
Brexu-cel	$7,597	$49,643	$8,756	$16,544	$65,996	-$57,909	$82,540	-$68,814
Lenalidomide	$0	$2,016	$1,469	$820	$3,485	$4,602	$4,305	$9,421
Allo-SCT	$18,830	$91,522	$26,628	$34,148	$136,980	-$128,893	$171,128	-$157,402

Abbreviations: Allo-SCT: allogeneic stem cell transplant; **BR:** bendamustine and rituximab; **Brexu-cel:** brexucabtagene autoleucel; **R-CHOP:** rituximab, cyclophosphamide, doxorubicin, vincristine and prednisone; **R-GDP:** rituximab, gemcitabine, dexamethasone and cisplatin; **V+I:** venetoclax and ibrutinib.

Figure 1. Ranking of Total HCRU Costs of Treatments for R/R-MCL in Canada from a Healthcare System Perspective



Abbreviations: Allo-SCT: allogeneic stem cell transplant; **BR:** bendamustine and rituximab; **Brexu-cel:** brexucabtagene autoleucel; **R-CHOP:** rituximab, cyclophosphamide, doxorubicin, vincristine and prednisone; **R-GDP:** rituximab, gemcitabine, dexamethasone and cisplatin; **V+I:** venetoclax and ibrutinib; **2L:** second-line; **3L:** third-line. **Note:** Allo-SCT was not included in this figure since total estimated costs are much higher than other comparators (estimated total costs of $136,980) and would impact the visual presentation of the results within the figure.

DISCUSSION

Study Strengths:

- First study to estimate HCRU costs of all treatment options for R/R-MCL in Canada and Quebec.
- Use of a thorough validation process, involving clinical experts based in major Canadian and Quebec provinces.

Study Limits:

- Cost data primarily sourced from Ontario for the Canadian perspective.
- Study does not account for patient differences; therefore, results might not be representative for some patient subgroups of R/R-MCL.
- Although randomized controlled trials are a type of best supportive care that is often used for the treatment of R/R-MCL, they were excluded as a potential comparator since it is impossible to cost.

CONCLUSIONS

- By offering a longer PFS in 2L, V+I could delay the need for a 3L treatment along with their substantial HCRU costs and burden.

REFERENCES

1. Lymphoma Canada. NHL-Subtypes. Accessed June, 2024. https://www.lymphoma.ca/lymphoma/non-hodgkin-lymphoma/nhl-subtypes/#3
2. Canadian Cancer Society. Non Hodgkin Lymphoma Statistics. Accessed June, 2024. https://cancer.ca/en/cancer-information/cancer-types/non-hodgkin-lymphoma/statistics
3. Wang M, Wojciech J, Trneny M, et al. LBA-2 Ibrutinib Combined with Venetoclax in Patients with Relapsed/Refractory Mantle Cell Lymphoma: Primary Analysis Results from the Randomized Phase 3 Sympatico Study. presented at: ASH; 2023; https://ash.confex.com/ash/2023/webprogram/Paper191921.html

DISCLOSURES

- Jean Lachaine is a partner at PeriPharm Inc., a company that has served as a consultant to AbbVie and has received funding from AbbVie to conduct the study.
- Kimberly Guinan and Monika Ham are employees of PeriPharm Inc.
- Jean Lachaine, Kimberly Guinan and Monika Ham from PeriPharm Inc., have participated in the study conduct, data interpretation and the preparation of this abstract.
- Dr. Christopher Lemieux received honorarium from AbbVie and Jazz Pharma.
- Dr. Peter Anglin received honorarium from AbbVie, Janssen, Astrazeneca, FORUS, Sanofi, Incyte and Kite.
- Nancy Paul Roc, Harpreet Singh, Hardeek Patel, Beenish S. Manzoor and Stephane Barakat are employees of AbbVie. Employees of AbbVie may hold equity.
- AbbVie participated in the design and provided financial support for the study. AbbVie reviewed and approved this publication.
- No honoraria or payments were made for authorship.