A Comparison of the Cost-saving Impact of Biosimilar Switching Policies Across Canadian Provinces: A Case-study for a Ranibizumab Biosimilar

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Keady S[1], Goyert-Stephens N[2], Xin Q[1], Morris L[3], Thomas M[3], Foxon G[3]

[1]Biogen International GmbH, Baar, Switzerland; [2]Biogen Canada, Toronto, Canada; [3] Remap Consulting GmbH, Zug, Switzerland

Introduction

In Canada there are variations in biosimilar switching policies implemented across different provincial public drug plans. Some have proactive switching policies that enforce a switch to biosimilars, others have optional, tiered or *de novo* only switching policies where the switch to biosimilars is not mandatory and are referred to as 'non proactive' switching policies.

Ranibizumab is a recombinant monoclonal antibody fragment that targets vascular endothelial growth factor (VEGF) and its isoforms. This anti-VEGF therapy is indicated across a variety of ophthalmic conditions.

There is increasing prevalence of ophthalmic conditions, which culminate in increasing economic burden for patients, payors and the healthcare system. Therefore, an increasing unmet need exists for cost effective biosimilar options for anti-VEGF therapy.

Provincial drug plan sustainability is central to ensure healthcare professionals can continue patient access to innovative therapies. These plans cover most patients requiring anti-VEGF's.

Objectives

This study examined the impact of differing biosimilar switching policies on cost savings for Canadian payors.

The anticipated budget impact of a ranibizumab biosimilar was estimated across ten provincial drug plans.

Methods

Scenario analyses

Provincial public drug plan biosimilar switching policies were identified. Two scenarios were modelled: a market with ranibizumab biosimilars, and a market without.

Scenario analysis was performed to forecast the budget impact resulting from all provincial drug plans implementing proactive switching policies. For proactive and non proactive switching policies at month 36 market share was capped at 96.4% and 31.4% respectively.

Budget impact

Uptake was based on historical data of etanercept biosimilar uptake in Canada.
The model used growth rate of ranibizumab of 5%, 3%, 2% and 1.5% for years 2022–25. Cost differentials were based on individual list prices.

Budget impact over a three year horizon was calculated and sensitivity analyses were conducted. Cost-savings were compared between provinces and switching policies.

Resulting analysis identified possible opportunities for increased drug plan cost savings associated with adopting proactive biosimilar switching policies.

Results

Provincial switch policy type

Figure 1 demonstrates switch policy type, non-proactive switching policies are classified as optional, tiered or de novo.

- As of January 2023, public drug plans in British Columbia, Alberta, Saskatchewan, Quebec, New Brunswick and Nova Scotia were identified as having proactive switching policies. Whilst Prince Edward Island, Ontario, Manitoba and Newfoundland & Labrador were considered to have non-proactive switching policies.
- Non-proactive policies can be classified into optional, tiered or *de novo* (Figure 1).

Savings achieved

The savings achieved for each province over a three year horizon are summarised in Table 1.

- Over a three year horizon, total savings estimated for all identified non-proactive provinces with a non-proactive switching policy would be CAD$24,352,109.
- With a proactive switching policy scenario modelled for all provinces, savings of CAD$142,593,234 were projected, with 66% of savings coming from non-proactive provinces (Figure 2).
- Comparatively, with a national non-proactive switching policy scenario, overall savings of only CAD$36,890,564 could be gained. Proactive provinces would contribute a greater proportion (66%) than non proactive provinces (34%) (Figure 2).

Figure 1. Canadian provinces categorized by switching policies as of January 2023

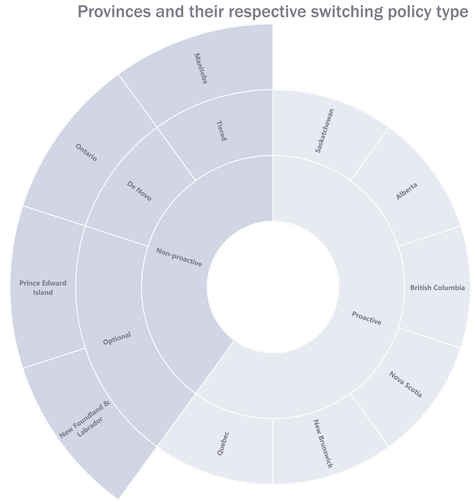
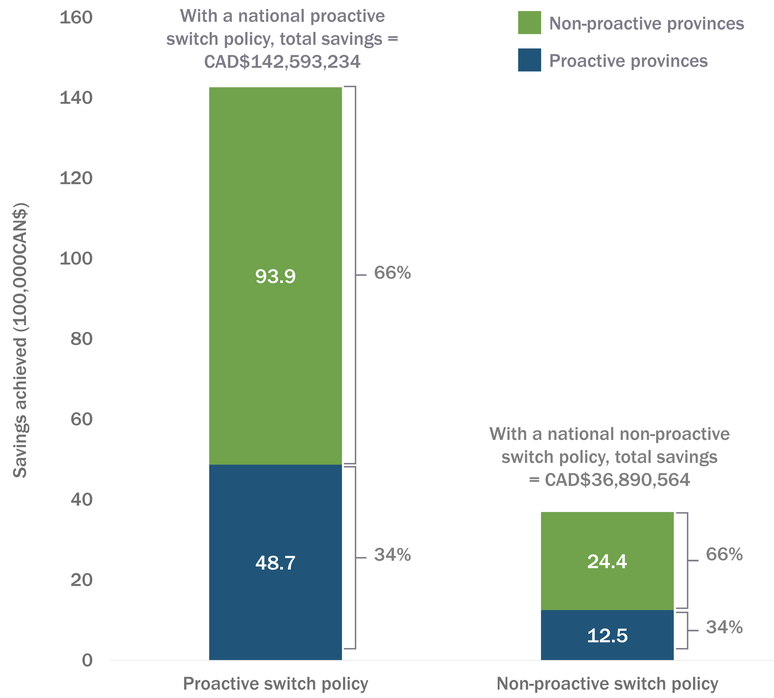


Table 1. Savings achieved for each Canadian provincial drug plan in either a proactive switch policy scenario or non-proactive switch policy scenario

	Province	Savings achieved by policy type (CAN$)	
		Proactive switching	Non-proactive switching
Proactive	British Columbia	543,368	139,905
	Alberta	2,405,753	619,147
	Saskatchewan	631,689	162,572
	Quebec	35,636,476	9,171,434
	New Brunswick	4,589,892	1,181,262
	Nova Scotia	4,912,240	1,264,135
Non-proactive	Prince Edward Island	156,505	56,885
	Ontario	92,086,557	23,699,555
	Manitoba	1,024,210	374,492
	Newfoundland & Labrador	606,544	221,177

Figure 2. Total savings achieved (CAN$) by biosimilar switching policies across Canadian provinces



Conclusions

The anticipated Canadian launches of ophthalmologic biosimilars are poised to provide significant savings to the healthcare system – which can be enhanced by adopting policies in support of biosimilar uptake.

Adoption of more proactive switching policies would dramatically increase overall savings, which are essential to bolster sustainability of provincial drug plans and have already facilitated the expansion of reimbursement in Canada[1].

All drug plans may be able to realize further savings by accelerating timelines granted for biosimilar switching.

References

1. Government of B.C. B.C. expands use of biosimilars to offer coverage for more treatment options. BC Gov News. 27 May 2019. Accessed: 08 March 2023. Available at: https://news.gov.bc.ca/releases/2019HLTH0080-001072.

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