Potential Cost Implications of Mandatory Non-Medical Switching Policies for Biologics for Rheumatic Conditions and Inflammatory Bowel Disease in Canada

ODPRN

Background

- Biologic drugs are important treatment options for a number of diseases, including rheumatic conditions and inflammatory bowel disease (IBD), although their substantial cost has placed a strain on the healthcare system.
- Biosimilars are lower cost alternatives to innovator biologic drugs and have no clinically meaningful difference in efficacy or safety, however their uptake in Canada is low.
- In 2018, infliximab, etanercept, and adalimumab, three drugs used to treat rheumatic conditions and IBD, cost Canadian public payers an estimated $1.1 billion. While all three drugs have biosimilars that have been approved by Health Canada, adalimumab biosimilars are currently pending commercialization in the country.
- In response to rising drug costs, several provinces have introduced or are considering policies mandating non-medical switching to biosimilars among patients with rheumatic conditions and IBD.
- Given the high costs of biologics used to treat these conditions and the changing policy environment, it is important to understand the utilization of these drugs across the country and to estimate the cost implications of potential reimbursement policies.

What did we investigate?

The uptake of infliximab, etanercept, and adalimumab biosimilars in Canada and the potential cost implications of mandatory non-medical switching policies across the country.

How was the study conducted?

- We conducted a cross-sectional analysis of monthly prescription claims from community pharmacies for infliximab, etanercept, and adalimumab reimbursed by Canadian public drug programs between June 1, 2015 and December 31, 2019.
- Sensitivity analyses included 1) an assumption of a 25% rebate on all biologics, based on an estimated 25% rebate on new, high-cost drugs obtained by provincial drug programs, and 2) an assumption of an adalimumab biosimilar being commercially available at 50% and 75% of the innovator biologic price.

Key points

- The utilization and cost of infliximab, etanercept, and adalimumab for the treatment of rheumatic conditions and IBD increased substantially over the study period, however uptake of biosimilars remained low across Canada.
- Significant cost savings would be realized nationally if mandatory non-medical switch policies were introduced across Canada, however savings would vary widely across provinces.

For more information

Corresponding author: Tara Gomes (tara.gomes@unityhealth.to)

Crosby, M., Tadrous, M., & Gomes, T. (2020). Potential Cost Implications of Mandatory Non-Medical Switching Policies for Biologics for Rheumatic Conditions and Inflammatory Bowel Disease in Canada. *Clinical Pharmacology & Therapeutics*.

What did we find?

Trends in Biologic Utilization

- Between June 1, 2015 and December 31, 2019, 6,231,623 units of infliximab, etanercept, and adalimumab reimbursed by provincial public drug programs were dispensed in Canada. Of these, only 4% (n=240,737) were biosimilar formulations.
- During the study period, monthly utilization of these drugs increased 30% (from n=98,469 to n=127,969) and monthly costs increased 29% (from $65.3 million to $84.2 million).
- Although biosimilar uptake also increased during the study period, they represented only 16% of infliximab and etanercept units dispensed nationally in 2019.

Potential Cost Savings from Mandatory Non-Medical Switching Policies

Biosimilar Policy	National Savings
Mandatory non-medical switching policies introduced in all provinces in 2019 (etanercept and infliximab only)	$239.6 million (24%)
Mandatory non-medical switch to biosimilars (etanercept and infliximab only) under an assumption that public drug programs are already receiving a 25% rebate on all biologic drugs	$179.7 million (24%)
Mandatory non-medical switch to biosimilars, including an adalimumab biosimilar at 50% of innovator cost	$425.6 million (43%)
Mandatory non-medical switch to biosimilars, including an adalimumab biosimilar at 75% of innovator cost	$332.6 million (34%)

**potential cost savings varied among provinces, however every province would realize savings in all scenarios*

British Columbia Policy Analysis

- Subsequent to the introduction of a mandatory non-medical switch policy for patients with rheumatic conditions in BC in May 2019, the market share of etanercept biosimilars increased from 16% to 94% in December 2019 and the market of infliximab biosimilars increased from 24% to 57%.
- Compared to May 2019, BC realized an estimated $1.8 million in monthly cost savings from their mandatory non-medical switch policy in December 2019.

Recommendations

Policymakers

- Due to historically low uptake of biosimilars despite efforts by provinces to curb costs, more aggressive policy interventions, such as BC's mandatory non-medical switching program, would likely be required to significantly increase biosimilar uptake and stem costs.
- Despite the large potential for cost savings, given the complexity of the biologics treatment environment, policy changes should be conducted in consultation with patients and prescribers to ensure that structural and clinical considerations are integrated throughout policy development and implementation. This includes balancing potential cost savings against patient impacts such as access, quality of care, and available support services.