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Ontario Medical Students Association
Association des étudiant·e·s de médecine de l'Ontario

POSITION PAPER

A Patient-Focused Transition to Biosimilars in Ontario

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INTRODUCTION

In December 2022, the Government of Ontario announced that the current Ontario Health Insurance Plan (OHIP) will no longer cover specific biologic medications, only biosimilar medications, beginning on December 29th 2023.[1] The class of biologic medications are defined as being derived from a living source, such as cells or living organisms. This is compared to conventional small molecule drugs, which are created chemically. Common examples of biologics include growth hormones and insulin. One specific subset of biologic medications, also called biotherapeutics or biopharmaceuticals, are vastly complex molecules created to treat a number of autoimmune diseases including cancer, diabetes, blood disorders, rheumatoid/psoriatic arthritis, Crohn's disease and ulcerative colitis, among others.[2,3] From hereon, "biologics" and "biologic medications" will refer to the latter examples. Due to their high cost, biologic medications are commonly being removed from provincial public formularies. These changes are forced upon patients and leave them with a reduced number of treatment modalities. The following position paper advocates for a patient-focused transition to lower-cost biologic medications, balancing patient-autonomy, and responsible healthcare spending.

Genetic engineering began in the late 1970's and initiated the development of targeted therapy and biologic medications.[4] In the 1990's, biologic medications were introduced to the drug market to treat autoimmune illnesses. For example, in 1998 Remicade® (infliximab) was approved by the FDA for Crohn's disease.[5] This began a treatment revolution and provided an additional class of medications for treatment-refractory or poorly controlled chronically ill patients. Previously, these patients would have been left disabled or be forced to undergo surgery.[2] The medical community fully understood the impact of these medications. Health care professionals moved from prescribing them only for severe cases to biologics becoming a common treatment option for patients with autoimmune illnesses. In 2018, biologics made up 17% of the total pharmaceutical market in Canada.[6]

Biologic medications are developed by pharmaceutical companies as proprietary formulations, with the ability to determine the price based on the drug's estimated value i.e., the effectivity, manufacturing cost, and research undertaken to develop the medication. The development of biologic medications is much more complex compared to conventional small molecule medications. Small-molecule medications can take 3-5 years and $1-5 million to develop, compared to 8-10 years and $75-250 million for biologics.[7] The high cost of development of biologics leads to their high price. Common biologics for rheumatoid arthritis and IBD range between $17,367 (*Anakinra (Kineret)*) to $102,706 (*Infliximab (Remicade®)*) per patient per year.[8] High biologic prices set by the pharmaceutical companies have meant that either patients or insurance policies bear the cost. In 2018, biologic medications in Canada made up 1.5% of prescriptions (by volume) while making up 27.3% of drug costs, and sales of biologics in Canada totalled $7.7 billion.[6,11]

Health Canada defines a biosimilar as "*a biologic drug that is highly similar to a biologic drug that was already authorized for sale*".[9] Biosimilars are often thought of as "generic" versions of biologic medications, which they are not.[9] Generic medications have the identical chemical makeup as the name brand drug, but often at a reduced price. For biosimilar medications, although the molecule/inflammatory pathway target may be the same as the original biologic, proprietary differences in manufacturing leads them to be *similar,* but not *identical* and not interchangeable. Interchangeability typically means that two drugs are equivalent and can be used in place of one-another, such as a brand name and generic medication.[9] Health Canada states that "*a biosimilar is not a declaration of equivalence to the reference biologic drug*".[9] In the regulatory process, biosimilars must show a 'high degree of similarity' with unclear terms regarding the 'safety, purity and potency'.[10] This grey-zone of interchangeability between biologics and biosimilars is still being researched and requires more time to fully understand if each biosimilar is non-inferior to a reference biologic. Biosimilars were developed to help reduce medication costs and increase availability of these types of medications. It has been observed that the cost difference between biologics and biosimilars is on average 30%.[6] Due to these high costs of biologics and the entry of biosimilars, many European countries and Canadian provinces have made the switch to covering only biosimilars on their drug formularies. In 2018, biosimilars (infliximab, etanercept, insulin glargine, and filgrastim) had an estimated cost savings of $93.9 million to the Canadian healthcare system.[12] Currently, BC and Alberta have implemented forced biosimilar transition programs, with 8 more provinces in the process of switching to biosimilars, including Ontario.[13,14] Currently, patients receiving Ontario drug coverage for Copaxone®, Enbrel®, Humalog®, Humira®, Lantus®, NovoRapid®, Remicade®, and Rituxan® will be forced to switch from these medications, which are currently keeping them in remission, to a biosimilar option for cost-savings by December 29th, 2023.[15]

The Ontario Drug Benefit (ODB) currently covers Ontario residents 24 years and younger or 65 years and older. In 2022, this represented almost 7 million Ontario residents.[16] The ODB covers the cost of ~5,000 medications for Ontarians. Between 2010 to 2019, publicly funded biologic prescriptions in Ontario increased 462%.[17] The affected patients by this forced switch include those diagnosed with inflammatory bowel disease (IBD), rheumatoid arthritis (RA), diabetes and multiple sclerosis (MS). IBD has two peaks of incidence between 15-25- and 40-69-years.[15] The highest incidence of RA occurs in patients aged 80-84 years.[19] Currently, 8.1% of Canadians have been diagnosed with either type 1 or 2 diabetes, with the highest incidence being between 75-79 years old.[20] Finally, over 60% of patients diagnosed with MS are between 20-49 years old.[21] Given the above information, ¾ of the illnesses affected by the biosimilar switch have the highest occurrence when a patient would be covered by the ODB. The ODB is crucial to patients' ability to afford essential medications. These illnesses can be crippling without disease modifying agents, leading to increased years lived with disability, worse disease outcomes and increased surgical interventions. [2, 13]

Since before the pandemic, there has been an increased strain on the Canadian healthcare system. From long term care crises, nursing shortages and closures of rural emergency rooms, there is a requirement for fiscal responsibility and just allocation of resources.[22] Ontario currently spends $4,342 per capita on healthcare, which is the second lowest of all provinces.[23] The aforementioned high price tag of biologics places an increased strain on other areas of healthcare to work within this limited budget. As medical professionals, we owe it to Ontarians to use their money responsibility on medically necessary treatments, without sacrificing health. As such, Crohn's and Colitis Canada and the Canadian Association of Gastroenterology jointly wrote against the switching of patients to biosimilars for non-medical reasons.[24]

Given the aforementioned information about biologics, biosimilars and the Ontario healthcare system, the Ontario Medical Association is guided by the following principles and recommendations to ensure that Ontario maintains a patient-first healthcare system.

PRINCIPLES

The Ontario Medical Students Association makes its recommendations using the following guiding principles:

1. Set out in the Canadian Health Act, Comprehensiveness is an essential aspect of providing healthcare to Canadians and ensures that all medically necessary treatments/procedures are available.
2. Accessibility of the Canadian Health Act states that no financial barriers impede access to reasonable and appropriate treatment.
3. Public administration asserts that health coverage should be financed by a public, not-for-profit authority.

RECOMMENDATIONS

The Ontario Medical Students Association recommends the following:

1. **That the Government of Ontario alter their current policy before December 29th, 2023, to ensure that no patient currently prescribed a biologic medication, and is clinically stable, is forced to transition to a biosimilar.**

    a. No patient who is currently stable on a pre-approved biologic medication should be forced by the Ontario Government to change their treatment course to a biosimilar medication. The choice of treatment is a decision between a physician and patient and must be focused on the health and welfare of the patient, not cost. The Canadian Drug Expert Committee reported that patients were "constantly concerned about disease flare-ups, which occur unpredictably" when switching to biosimilars.[25] One of the most prominent studies comparing biologics to biosimilars was the NOR-SWITCH study which transferred patients from infliximab to a biosimilar, CT-P13. The results showed a non-inferior result in terms of disease worsening and adverse events, although Crohn's disease treatment showed a large treatment difference of -14.3%.[10, 26] In a pooled analysis of studies on inflammatory bowel disease patients, results demonstrated that in a forced transition from Remicade® (infliximab), 1 out of 11 had lost response, highlighting the dangers of a forced biologic transition.[26] In a study in the USA, Teelpe et al. reported that 84% of physician respondents (rheumatologists, gastroenterologists and dermatologists) did not want stable patients being forced biosimilars.[27] When BC forced patients to Biosimilars within 6-months, only 88% of patients had switched at the end of the one-year follow-up. This meant that these patients were forced to pay out of pocket for their medications or be left to suffer the consequences of untreated autoimmune diseases. In a review study which identified 4 citations looking at healthcare costs pre- and post-forced biologic switch, it was found that there can be an increased healthcare utilization after switching. It is unclear if this is because of the drug or the process of changing medications. Either way, the cost savings of biosimilars may be partially negated by increased healthcare usage with forced switch methods.[28]

    Additionally, with a switch to a biosimilar, there is no guarantee that the medication will work as efficaciously. This was a common distressing theme identified by IBD patients in Europe in

a 2017 qualitative study on patient perspectives on biosimilars.[29] In 2021, the CBC reported on a patient with RA that switched from Remicade® (Infliximab) to a biosimilar Inflectra. The worst-case scenario unfolded and the biosimilar failed to control her illness. She stated "*This new stuff, it doesn't work. I can't sit still, because my old body's aching everywhere*".[30] It is unreasonable for the Ontario government to propose moving someone from a medication that controls their illness adequately to a biosimilar which may not, due to cost. Due to the immune-modulating properties of these medications, once a patient is taken off a biologic and subsequently restarted, drug response can be lost.[31] In the REGAIN study, between 33-35% of patients did not show clinical remission after 26 weeks of retreatment following at least a 6-month period of discontinuation of Remicade®.[32] This means that if a patient was able to eventually afford their original medication in the future, they may not respond as before. Given the above information, it should be stated that no patient who is clinically stable on a biologic medication should be forced to switch to a biosimilar for the sole purpose of cost-savings.

b. To ensure financial responsibility, newly diagnosed patients with one of the affected illnesses can be directed to biosimilars as first-line medications if there are no contraindications. Additionally, if a patient currently on a biologic loses response, they should also be directed towards a biosimilar option. 23-46% of IBD patients eventually lose response to anti-TNF biologics over time, therefore these patients would eventually need to be switched to another biologic.[33] This would allow a disease-course transition from a biologic to a biosimilar without being forced for monetary reasons. These two options would allow a transition in the biosimilar market in Canada. One example demonstrating the need for the increased biosimilar rollout outlined above is Remicade®, which made up 92% of the market compared to the biosimilar options in Canada in 2018.[9] Comparing this to the OECD median of 64% Remicade® market share, there is room for biosimilar growth to bring down costs in a patient-centred method. An increased number of biologics/biosimilars would allow market pressures to hopefully reduce the original biologic to a competitive price (*see 2.b)*.

2. That the Government of Ontario keep original biologic medications on the Ontario Drug Benefit formulary for second-line treatment after a patient has exhausted their biosimilar options.

a. To ensure that patients with life-long chronic illnesses have access to the greatest number of medications/treatments possible, first line biosimilars should be bolstered by second-line biologics for patients. Access to life-changing medications should not be limited by public drug coverage. Although the Government of Ontario stated there is an exemption process for biologic usage, changing the current statement to explicitly state the second-line options removes the burden on patients to jump through government hoops for approval. The Canadian Drug Expert Committee heard from patients switching from biologics to biosimilars who stated that "the course of IBD is unpredictable" and "the availability and choice of different treatments options are important" [to patients].[25]

b. If the cost of biologic medications becomes lower due to market pressures, the Government of Ontario will allow all similarly-costing biologic medications to be considered first-line, providing the highest number of treatment options. There is no doubt that the use of biosimilar medications can only be good for patients, providing them with an increased number of cost-effective treatments, allowing patients and physicians to choose between either the biosimilar or biologic according to patient factors, not by cost. This is only true if original biologics are still available as treatment modalities and not removed from the formulary altogether. Yearly audits of biologic pricing need to be enacted to ensure this.

3. **That the Government of Ontario invest portion of the cost-savings from the switch from biologics to biosimilars into a) supplemented treatment for the affected populations (Diabetes, IBD, MS and RA) and b) a post-switch surveillance program.**

    a. When British Columbia implemented their forced biosimilar switch, the government understood that there may be concerns during and following the transition. To address this, the BC Government committed to re-invest a portion of the savings from the biosimilar switch to the affected communities.[10] The Ontario Medical Students Association (OMSA) calls on the Government of Ontario to make the same type of commitment to the affected populations and reinvest 25% of the cost savings of the biosimilar transition into the diabetes, IBD, MS and RA treatment including increased nursing support, expanded fee codes for physicians and boosted mental health support. The Ontario Medical Association (OMA) released *Prescription for Ontario: Doctors' 5-Point Plan for Better Health Care* stating that there needs to be an increased investment in chronic disease management.[23] This statement from the OMA aligns with the aforementioned recommendation on investing in those with chronic illnesses. Finally, these savings should be put towards a two-year post-switch surveillance program to study the outcomes of patients switching between these medications to bolster the scientific data on biosimilars in Canada. The data from these patients should be used to guide and update Ontario health policy specifically regarding biologics.

4. **That the OMSA explores student-led initiatives for equitable and universal pharmacare, beginning with advocating against forced biosimilar switching in Canada.**

    a. As universal Canadian pharmacare becomes a policy goal of the Federal government, the need to advocate for equitable inclusion of patients using biologics and other emerging novel therapeutics is essential. Previous social media campaigns developed by the OMSA were successful in increasing awareness and creating change, which can be utilized for equitable pharmacare. Emails to the OMSA members and OMSA Twitter/Facebook/Instagram engagement posts can be the first step in this cause.

    b. In conjunction to the social media campaign, biologic/novel therapeutic coverage should be submitted as a topic to the OMSA Day of Action 2024. This would allow medical students to bring this topic directly to Canadian lawmakers, highlighting the arguments in this position paper.

In conclusion, the OMSA sees the proposed biosimilar changes to the ODB by the Government of Ontario as deeply concerning. Medication choice should be a collaborative decision made between a physician and patient to best suit the health of the patient. Forcing healthy-stable patients with chronic illnesses to change medications only for monetary reasons does not reflect the OMSA core principles.

IMPLEMENTATION STRATEGY

Should the OMSA choose to endorse this cause, implementation of these recommendations would consist of two major pillars. The first being education of medical students and professionals to the forced-switch to biosimilars, and the second being an open-letter to the Government of Ontario stating the OMSA's position. Many individuals don't know about the forced biosimilar transition, highlighting the need for recommendation 4.a. The second part of the strategy would be to engage the Government of Ontario in hearing the OMSA stance through an open letter. The open letter would hopefully allow for a delay to the December 29th, 2023, forced-transition deadline to allow for increased consultation with patients and physicians.

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