CADTH

CADTH COMMON DRUG REVIEW

Patient Input

ofatumumab (TBC)

(Novartis Pharmaceuticals Canada Inc.)

Indication: Multiple Sclerosis, relapsing

CADTH received patient input from:

MS Society of Canada

September 16, 2020

CADTH

Patient Input Template for CADTH CDR and pCODR Programs

Name of the Drug and Indication	**Ofatumumab for treatment of relapsing multiple sclerosis**
Name of the Patient Group	**MS Society of Canada**
Author of the Submission	[redacted]
Name of the Primary Contact for This Submission	[redacted]
Email	[redacted]
Telephone Number	[redacted]

1. About Your Patient Group

The Multiple Sclerosis Society of Canada provides information, support and advocacy to people affected by MS, and funds research to find the cause and cure for the disease, bringing us closer to a world free of MS. Since 1948 the MS Society has contributed $200 million towards MS research. This investment has enabled the advancement of critical knowledge of MS, and the development of a pipeline of exceptional MS researchers.

2. Information Gathering

The MS Society of Canada launched an online survey posted to its national website www.mssociety.ca main page and Facebook page in both English and French. The ofatumumab for treatment of relapsing MS survey was posted August 4, 2020 and closed September 4, 2020. Based on the survey comments, respondents appear to be from Canada however country of origin was not a survey question.

In total we received 69 completed surveys; 61 English respondents and 8 French respondents. Of those who completed the survey, 52 were women and the rest were men. Over 90% of respondents identified as living with multiple sclerosis (63), and 4 responded as caregivers. The age ranges were relatively equally distributed with a slightly higher response rate from those aged 31-40 (23). The remaining age ranges reported were: 41-50 (18 respondents) and 51-60 (17 respondents).

The majority of respondents (49) identified as being diagnosed with relapsing-remitting multiple sclerosis, 3 with secondary progressive MS, 5 with primary progressive MS, 4 respondents did not know their type of MS, and 2 respondents had clinically isolated syndrome (possible MS).

3. Disease Experience

Multiple sclerosis is an unpredictable, often disabling disease of the central nervous system. MS occurs because of damage to myelin, the protective covering wrapped around nerve fibres (axons). Damaged myelin causes an interruption or loss of the usual flow of nerve impulses along the axons resulting in a wide variety of symptoms. Approximately 85-90% of people are diagnosed with a relapsing-remitting

course, wherein they experience 'attacks' caused by bouts of inflammation in the CNS, followed by full or near complete recovery. Over time, about half of these individuals are likely to transition to secondary progressive MS, a form of the disease that steadily worsens over time and is marked by fewer or no attacks and advanced disability. The remaining 10% of people are diagnosed with primary-progressive MS, characterized by a steady worsening of disease that is not preceded by a relapsing course. The most common symptoms of MS include fatigue, difficulty in walking, visual impairment, cognitive difficulties, depression, bladder problems, and pain. Other symptoms may include issues with balance, sexual dysfunction, spasticity, tremor, weakness and difficulty speaking and swallowing. MS can occur at any age, but is usually diagnosed between the ages of 15 to 40, peak years for education, career- and family-building.

Depending on the type and severity of the symptom, an individual's quality of life can be greatly impacted. The episodic nature of multiple sclerosis creates unique employment issues – many people are unable to maintain stable jobs or remain in the workplace due to relapses, symptoms, medication side-effects and disability progression. In addition to employment, MS can interfere with, or introduce a barrier to education, physical activity, family commitments, interpersonal relationships and social and recreational life.

Caregivers play an instrumental role in the overall care management plan of people living with MS, these roles range from providing emotional support and assistance with medication administration, to helping with activities of daily living such as personal care, feeding and transportation to and from appointments.

4. Experiences With Currently Available Treatments

Treating MS as early as possibly following diagnosis with a disease modifying therapy (DMT) is associated with better long-term outcomes than delaying treatment. There are 15 DMTs in Canada approved for relapsing forms of multiple sclerosis however five of these medications are reserved as second-line therapies for patients who have not responded to, or are unable to tolerate first-line therapies for MS.

Most respondents were taking a DMT (67%), with one of the following: Ocrevus (11), Tecfidera (7), Aubagio (7), Tysabri (5), Gilenya (4), Copaxone (4), Mavenclad (3), Avonex (2), and Rebif (2). Of note, the most commonly reported DMT used by respondents from this survey is a second line agent (ocrelizumab), suggesting the importance and need for access to high-efficacy treatment options. In addition, of the nine DMTs reported by respondents, four are second line (high efficacy) treatments. The current treatment reimbursement criteria in Canadian provinces and territories requires that patients demonstrate clinical failure on at least one or more low-moderate efficacy treatment prior to initiating treatment with a high-efficacy agent at the time of diagnosis. Exceptions may be made for patients who present with highly-active disease (frequent relapses with incomplete recovery, and/or high radiological burden of disease, rapid accrual of disability after disease onset, with otherwise typical features of MS.[1]) and where a prescribing neurologist is able to justify induction therapy versus escalation (initiate a low-moderate efficacy treatment and monitor for response).

> *"Seem to have to start with less effective treatments. Only after progression can take more effective treatment. Want to avoid progression from the start."*

Based on previous CADTH patient feedback reports, the most commonly reported side-effects from DMTs are generally known and expected, and include injection site reactions, flushing, hair thinning, skin rash or hives, joint and/or musculoskeletal pain, gastrointestinal symptoms, increased risk of infections and flu-like symptoms. Due to the mechanism of action of most high efficacy agents, there is an increased risk of a more serious infections, including a rare brain infection, progressive multifocal leukoencephalopathy PML, a rare and potentially fatal side effect reported with treatment with a small number of DMTs (including Tysabri, Gilenya and Tecfidera).

[1] Cleveland Clinic Mellen Center for Multiple Sclerosis Treatment and Research

Drug administration and dosing schedules are consistently identified as a priority for patients when selecting a DMT. Depending on the DMT recommended by the prescribing neurologist, patients may currently choose from injected, oral or infused medications and dosing schedules ranging from daily to a two-week period per treatment year. Offering patients the choice to select the administration, and in some cases dosing schedule that best fits their lifestyle and personal preference will increase medication adherence, an issue that has been increasingly difficult to address in MS. Adherence will improve the clinical benefit of the medication and quality of life of the patient, resulting in a potential decrease of burden to the Canadian health and social systems.

5. Improved Outcomes

Unlike other (anti-CD20) similar therapies on the market, ofatumumab is the only monoclonal antibody available as a subcutaneous self-injection rather than being delivered via infusion at a specialty clinic. This once-monthly self-administered injection will allow patients the freedom to select the time they take their treatment, eliminate the need to travel to a clinic or take time away from work or school. This fills a significant gap in MS treatment for patients who are recommended to be treated with a high-efficacy monoclonal antibody. In addition, high efficacy medications reduce the financial burden to health and social systems through fewer relapses requiring hospitalization and loss of employment. Specifically, ofatumumab has the potential to reduce this burden further as there is no requirement for a clinic visit or missing work to receive an infusion.

> *"Accessibility is a very important issue. The cost and inability to travel for treatment are challenges that should be address by our government."*

> *"We must continue pushing for affordable access to MS treatments for everyone afflicted by this disease."*

6. Experience With Drug Under Review

The MS Society did not receive feedback from patients with current or previous experience with the drug ofatumumab which is typical for our population in response to new drug feedback surveys. Over 70% (48) of all respondents had not heard about ofatumumab as a new treatment for relapsing MS by their neurologist. Information related to mechanism of action, administration and dosing of ofatumumab was provided in the introduction of the survey and we asked the following question about risks versus perceived benefits:

Based on clinical trial data, the most common side effects of ofatumumab include: Upper respiratory tract infection with symptoms such as sore throat and runny nose; Injection site reactions (local) such as redness, pain, itching and swelling at the injection site; Injection-related reactions (general) such as fever, headache, muscle pain, chills and tiredness; Blood test results: Decrease in specific proteins in the blood (immunoglobulins M). Would you be willing to trade the risk of the adverse side effects of ofatumumab for the perceived benefits of the drug?

Of those who answered this question, the majority (24) did not know if they were willing to trade the risks for perceived benefits, 17 said they would not take the risk and 21 said they would be willing to take the risk.

7. Companion Diagnostic Test

More than two-thirds of the respondents (65%) reported the requirement of pre-treatment laboratory tests or post-treatment monitoring. Depending on the treatment, testing and monitoring may include (but is not limited to) CBC with lymphocyte counts, liver enzyme, thyroid function, screening for infections including

Hepatitis B and C, HIV, TB, VZV as well as risk of PML (obtain JC virus antibody index) prior to treatment, cardiac assessment, pregnancy test and immunization status. Half of the respondents indicated that they do not feel that pre-treatment tests or ongoing monitoring are challenging for them to fulfil. Those who did report challenges included time away from work, cost associated with pre-treatment vaccinations and delays in blood work results. While other similar therapies involve infusions in specialty clinics and higher levels of monitoring, taking time away from work, school or other commitments, ofatumumab requires low monitoring and is self-administered at a patient's home.

"Time away from work and significant wait times for blood collection."

8. Biosimilar

N/A

Appendix: Patient Group Conflict of Interest Declaration

1. Did you receive help from outside your patient group to complete this submission? If yes, please detail the help and who provided it.

   No

2. Did you receive help from outside your patient group to collect or analyze data used in this submission? If yes, please detail the help and who provided it.

   No

3. List any companies or organizations that have provided your group with financial payment over the past two years AND who may have direct or indirect interest in the drug under review.

Company	Check Appropriate Dollar Range			
	$0 to 5,000	$5,001 to 10,000	$10,001 to 50,000	In Excess of $50,000
Bristol Myers Squibb			X	
Biogen				X
EMD Serono				X
Novartis				X
Roche				X
Pfizer			X	
Genzyme – A Sanofi Company			X	
Allergan	X			
Teva Neuroscience		X		
Janssen		X		

I hereby certify that I have the authority to disclose all relevant information with respect to any matter involving this patient group with a company, organization, or entity that may place this patient group in a real, potential, or perceived conflict of interest situation.

Name: Jennifer McDonell
Position: Information Curator
Patient Group: Multiple Sclerosis Society of Canada
Date: September 11, 2020