

CADTH COMMON DRUG REVIEW

Patient Input

**darunavir/cobicistat/emitriectabine/tenofovir alafenamide
(Symtuza)**

(Janssen Inc.)

Indication: HIV-1 infection

CADTH received patient input for this review from:
Canadian Treatment Action Council (CTAC)

February 8, 2018

Disclaimer: The views expressed in each submission are those of the submitting organization or individual; not necessarily the views of CADTH or of other organizations.

While CADTH formats the patient input submissions for posting, it does not edit the content of the submissions.

CADTH does use reasonable care to prevent disclosure of personal information in posted material; however, it is ultimately the submitter's responsibility to ensure no personal information is included in the submission. The name of the submitting patient group and all conflict of interest information are included in the posted patient group submission; however, the name of the author, including the name of an individual patient or caregiver submitting the patient input, are not posted.

1. About Your Patient Group

The Canadian Treatment Action Council (CTAC) is Canada's national non-governmental organization addressing access to treatment, care and support for people living with HIV and hepatitis C. CTAC's organizational goals are to meaningfully engage community members, service providers, policymakers and other relevant stakeholders to identify, develop, and implement policy and program solutions. CTAC understands that treatment access should be considered in its holistic form, encompassing the range of treatment, care and support needs required to reach the most successful treatment experience possible for people living with HIV and/or viral hepatitis co-infection. Full CTAC membership is reserved for: a) individual people living with HIV (including HCV co-infection); b) organizations, groups or projects with a substantial HIV mandate (including HCV co-infection). Associate CTAC membership is open to any individual, organization, group or project that supports CTAC's mandate and objectives.

Website: <http://www.ctac.ca/>

2. Information Gathering

On January 12, 2018, CTAC delivered a national consultation webinar that provided an overview of the Common Drug Review patient input process and key findings from the darunavir/ cobicistat/emtricitabine/tenofovir alafenamide clinical trials. Antu Hossain, Policy Researcher at CTAC, presented the consultation webinar. CTAC members and organizational partners were invited to participate in the webinar. In addition, we recognize that CDR patient input submissions are much stronger if the voice of people who have had (or believe themselves to have had) experience with the new therapy under consideration are included. As such, we reached out, via social media, to try to bring in those who had experience with either of the components within this 4-drug combination, or the new combination itself.

In total, four participants attended the webinar. A copy of the slide deck for the consultation webinar, and the web-based feedback survey link, was provided to webinar attendees via email. The survey was made available from Friday, January 12, 2018 to Wednesday, January 17, 2018. In total, CTAC has compiled data from four survey respondents. All of the respondents identified themselves as HIV- positive. All four respondents identified as male. Three respondents were in their 50's, while the other respondent was in their 40's. Two respondents reside in Ontario, one in Manitoba, and the other in Quebec. All respondents are on treatment for HIV. The number of years in treatment varied from 6 years to approx. 20 years. In addition to the results of this survey, survey data collected for a patient submission on F/TAF (2016), E/C/F/TAF submission (2015), and a concurrent patient submission on dolutegravir/rilpivirine (2018) have been used to inform and support this patient submission.

3. Disease Experience

HIV is a serious, life-threatening illness that threatens the immune system. Over time, if left untreated, HIV can compromise a person's immune system to the point that the body may no longer be able to fight off opportunistic infections. As of 2014, 75,500 Canadians are living with HIV (Public Health Agency of Canada). Access, administration of and adherence to highly active antiretroviral treatment (HAART) can control the progression of a person's HIV. In most cases, people taking HAART achieve an undetectable viral load (or viral suppression), the point at which there is so little HIV in the bloodstream (<50 copies/mL) that it cannot be detected by conventional medical technologies. Viral suppression is linked to marked improvement in long-term health outcomes and drastically reduces the possibility of transmitting HIV to sexual partners.

While achieving and maintaining an undetectable viral load via HAART means HIV-positive people can live long lives and manage their HIV as a chronic illness, people living with HIV experience the effects of "accelerated aging".

According to Centers for Disease Control and Prevention (CDC) HIV/AIDS surveillance data from 1985 to 2010, people with HIV are living longer, where more than 35% are aged 50 or older. As people living with HIV are aging, they are also more susceptible to inflammation and non-infectious co-morbidities, including bone fractures and renal failure, at earlier ages. From the literature, co-morbidities, such as kidney, liver, and cardiovascular disease, are more common in people living with HIV than the general population. Increased risk of experiencing co-morbidities is due to several risk factors, including co-infection and antiretroviral treatments themselves. In a study, people

living with HIV between ages 41-50 are 16 times more likely than the general population to develop renal failure, and 46 times more likely to develop renal failure when over 60 years of age. When considering bone fracture risk, HIV+ people between the ages 40-60 are 12-16 times more at risk than those uninfected with HIV (Guaraldi G, et al. Outcomes Res. 2013 Sep 23;5:481-8).

As a chronic illness, HIV can present a number of complications, and these can vary from day to day and from patient to patient. At CTAC, we know that many people living with HIV experience negative mental health outcomes, either as side effects from treatment, or from facing stigma, discrimination, and related stress. One respondent explained how stigma affected both his care and his sense of place in his community, saying, "Life is very health[y] and I do not consider my HIV a disability, although it is a social disability because of stigma." Another respondent noted that there are also issues with stigma in the medical community, "Local doctors feel ill-equipped to treat HIV due to inexperience because of low patient caseloads with the condition. Stigma also play into it I think. Unless they're familiar, doctors still see HIV as something more difficult to live with than it actually is." Another respondent discussed the challenge of managing HIV while residing in a rural area, "I live in a rural area and have to travel about 100 km. each way for my doctor's appointments. I only see my doctor about every six months. Obviously if I had to travel that far more often it would be a challenge. For those who don't have the support of family this could definitely be an obstacle."

In 2011, the Canadian AIDS Society released a study that estimated a \$1.3 million total economic loss per Canadian living with HIV (analyzing statistics current through 2008). This includes a \$670,000 average loss per HIV-positive person in labour productivity and a \$380,000 average loss in quality of life. As a result of being on HIV treatment, many respondents described noticeable improvements in their quality of life and ability to engage in daily activities. Discussing the overall impact of treatment on his life, one respondent stated, "Not only do I feel healthy, I know I am thanks to the regular bloodwork that examines all parameters. Seeing the doctor regularly is a significant benefit of having HIV." When asked whether treatment had improved their quality of life another respondent answered, "I am very healthy, employed, and also volunteering. Living life fully in a relationship and as a community member." Another respondent from our Dolutegravir survey noted that, "Quality of life has improved because I am not as fatigued as previously."

Many people living with HIV experience intersecting vulnerabilities conditioned by the social determinants of health – the social and structural conditions in which people are born, live, work and age, shaped by the distribution of money, power and resources at the local, national and international levels. The following stories from respondents reflect the substantial impact that the social determinants of health, particularly employment and the accessing of public health benefits, have had on managing their HIV:

"My challenges are not treatment related, but more about how I am treated because I work periodically and I access Trillium. The Trillium plan is a barrier for people who work part time or periodically. Aids organizations and the government itself often assume that people will go onto ODSP or have private drug plans."

"Cost of drugs and Trillium support does not take into account that many people are episodically or precariously employee. Not everyone has a full time job and not everyone with HIV is on ODSP."

As a result, HIV is a complicated illness that requires treatment options that can be tailored to individual needs, delivered in innovative capacities that bolster access to treatment, care and support, such as

treatment outreach programs, low-threshold health care services, adherence programs and social supports.

4. Experiences with Currently Available Treatments

HIV is a complex illness and people living with HIV have varying responses to treatments that are currently available. Most people living with HIV are able to work with their physicians to find a therapeutic regimen that achieves viral suppression. However, some people living with HIV are not able to achieve viral suppression, despite trying multiple treatment regimens. Additionally, treatment adherence (taking medication when prescribed, as prescribed) is necessary for treatment to be effective; non-adherence can lead to drug class resistance, requiring the adoption of a new regimen selected from fewer available treatment options. As a result, having the maximum possible treatment options available is of clinical importance.

Findings from our survey indicate that from the four respondents who identified as living with HIV all are currently, or have previously, been on treatment for their HIV. Their length of time on current therapy ranged from 9 months to 10 years. Considering our survey population was primarily made up of long-term survivors (ranging between 6 to 20 years), this result demonstrates that treatment regimens change somewhat often for people living with HIV. This emphasizes the significant need for the availability of several HIV treatments.

Only one respondent to the D/C/F/TAF survey indicated current or past use of regimens containing tenofovir/darunavir/emtricitabine. Treatments from all survey data combined in this submission ran the gamut from Prezista to Discovy, Intelence, Isentress, Norvir, Tivicay, and/or Atripla with different combinations of the above being utilized.

In the current D/C/F/TAF consultations, one respondent highlighted, “mostly the restrictions in accessing medications is for the more expensive ART...but also my mental health, where I can't get out of the house to pick up pills or simply too depressed to care about adherence.”

One previous respondent in the Truvada-experienced F/TAF consultations elaborated further on their improved health outcomes, stating “...my quality of life has improved greatly as my energy level has increased as well as my ability to sustain relationships as I am not afraid of transmission.” Additionally, a respondent who participated in the Triumeq patient input survey currently on a darunavir based therapy noted side effects as being “minor”, and indicated that s/he was able to suppress their virus to undetectable levels.

From the E/C/F/TAF patient input consultation, both respondents indicated the impact that living with HIV has had on themselves, caregivers and/or service providers. One respondent stated, “In the past, my biggest challenge has been to explain to my employer periodic requests to make adjustments to my work schedule in order to seek medical advice and treatment - especially when I had consultations and follow-ups with my family doctor, ID specialist, nephrologist, ENT specialist and GI specialist within the same general period of time. My health challenges were most certainly linked with side effects to my treatment at the time”. The other respondent noted that “time, assistance with navigating the social safety net, acting as a resource person, providing support, these challenges are linked to side effects that did not let me make it to docs [sic]”.

The F/TAF submission respondent noted specific issues stemming from living in a rural area, identifying that “the only barrier I have is the distance to travel to get to my appointments in Edmonton Alberta from Red Deer Alberta.” This is a common concern and barrier of many HIV patients, with the respondent in question elaborating that “travel costs are the major challenge I face to getting to my appointments. My local ASO helps with that though.”

Lastly, there were diverse responses from the dolutegravir/rilpivirine submission with respect to areas patients highlighted for further general support, and for caregiver support. They all noted substantial impact on caregivers looking after patients living with HIV. One respondent highlighted that the challenges his/her spouse faces in providing support is surrounding disclosure. According to the respondent, “hiding from friends and some of our family members that I am HIV positive” has been extremely difficult and hindered the ability to acquire a social safety net. Others noted staff time, funding, transportation and other associated costs as barriers to providing support and its impact on treatment adherence, mental health and other determinants of health. One respondent noted the challenges associated with lack of funding for direct support: “we have to decrease our direct support services and in PEI there are very little services for PHA’s in many areas, including addictions, mental health, housing and food securing, which put treatment lower on the priority list”. In addition, one respondent noted that difficulties understanding stigma and its impact, and navigating HIV-specific social services and institutional systems, including disability, insurance and mortgage, have presented specific challenges.

5. Improved Outcomes

Darunavir/cobicistat/emtricitabine/tenofovir alafenamide is a novel, once-daily, fixed dose combination therapy featuring four drugs that are already on the Canadian market. DCFTAF is the only single tablet regimen created to date to contain a boosted protease inhibitor (darunavir), and one of the few STRs to contain tenofovir (a well-known and effective drug molecule). Clinical trials on this drug combination show a good safety, efficacy, better tolerability profile, and a high genetic barrier resistance. For interest with patients, DCFTAF demonstrates a favorable safety profile with renal and bone benefits in ART-experienced patients.

One respondent who currently takes Atripla says they would consider taking DCFTAF, “Yes...it is as simple as taking Atripla,...however the cobicistat and darunavir may be better.” In contrast, another respondent said the active drug emtricitabine would dissuade them from considering DCFTAF. They elaborated on this reasoning by saying, “no, I am resistant to FTC (emtricitabine), protease inhibitors increase my fat lipids too much, (this is) the reason I switched.” Lastly, another respondent residing in Quebec commented on how they are averse to using this drug because of its cost: “Even though the formulary pays for it, I don't believe that it is worth the cost.” Moreover, when asked about the whether they believe side effects are similar/different between their current regimen and DCFTAF, two of the four patients felt they were the same and had no difference. Finally, these two respondents felt that their quality of life using DCFTAF would be equivalent to what they are experiencing on their current treatment.

6. Experience with Drug Under Review

None of the respondents, to our survey, had experience with the single-dose, darunavir/cobicistat/emtricitabine/tenofovir alafenamide combination drug.

7. Anything Else?

CTAC continues to acknowledge and appreciate CADTH and CDEC suggestions as to how to improve patient input submissions, and is motivated to discuss revisions, reform, and refinements to the patient input process that can better represent the patient voice as well as improve the work of not only submitting organizations, but also the CDR as a whole.

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.

CTAC did not receive help from outside our patient group to complete this submission.

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.

CTAC did not receive help from outside our patient group to collect or analyze data used in this submission.

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
Gilead Sciences				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: Shelina Karmali
 Position: Executive Director
 Patient Group: CTAC
 Date: January 22, 2018