

CADTH COMMON DRUG REVIEW

# Patient Input

**FLUTICASONE FUROATE/UMECLIDINIUM/VILANTEROL  
(TRELEGY ELLIPTA)**

(GlaxoSmithKline Inc.)

Indication: Chronic obstructive pulmonary disease (COPD)

CADTH received patient input for this review from:

**COPD Canada**

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## 1. About Your Patient Group

COPD Canada is an independently registered non-profit association, established in 2005. The association's primary mandate is to inform and support Canadians who live with the burden of Chronic Obstructive Pulmonary Disease (COPD).

At its core, COPD Canada is an educational association and patient advocacy group. The organization is involved in providing patient education materials and services, in a variety of formats, using different delivery methodologies. We also develop, sponsor and produce quality-of life seminars for patients and their families. COPD Canada strives to heighten visibility and awareness of COPD to the Canadian public. The group advocates for an expanded use of diagnostic testing for all Canadians who currently smoke or have smoked.

With a focus on emphysema and chronic bronchitis COPD Canada reviews and interprets the latest scientific and medical advances from worldwide sources. This information is then made available in easy-to-understand language to our members through our newsletter "Living with COPD". All published information is archived and available through the COPD Canada website.

Membership in COPD Canada is free-of-charge, but is restricted to COPD patients and their caregivers. Individuals can join through our website [www.copdcanada.info](http://www.copdcanada.info). Members are invited to participate in all COPD Canada events. They also receive complimentary copies of our bi-annual newsletter, "Living with COPD". Members are invited to add their pulmonary rehab clinic to our complimentary list to receive bulk copies of the newsletter, for distribution to attending patients.

## 2. Information Gathering

For the purposes of illustrating the condition-related symptoms and problems that impact COPD patients' day-to-day activities and quality of life, we are relying primarily on the personal experiences of our members and published scientific papers related to the disease. The experiences that are described are common to most of our members and much of the Canadian population who suffer from chronic obstructive pulmonary disease. Additionally, we have extensive interactions with many other COPD patients. These interactions and conversations occur in group pulmonary rehabilitation settings, lung issue support groups, as well as in direct one-on-one consultations. The common experience of COPD sufferers will be reflected in much of the information presented in this submission.

In February 2018, COPD Canada sent an e-mail survey to an nth name group of members from our national membership database and received written responses from forty-four members. None of the respondents have had experience with this particular drug combination although many have had experience with the component parts. The survey explicitly stated that Trelegy Ellipta, manufactured by GSK, was the new drug combination under review by CADTH. We have used relevant quotes from our members and have included sex, age, city, province and year of COPD diagnosis - if that information was provided by the respondent.

## 3. Disease Experience

With worsening disease, a COPD patient will progressively become less physically active and will have reduced social contacts. COPD is associated with a considerable burden of disease, affecting many things that are fundamental to everyday life, such as the ability to breath, talk, sleep, work, and socialize. COPD also has significant extra-pulmonary effects that may contribute to its severity in individual patients.

It has been demonstrated that reduced physical activity in patients with COPD is associated not only with clinical stages of COPD severity but also with systemic inflammation and left heart dysfunction. Patients with COPD have limitations in their occupational activities as well as in household and leisure time activities. Many patients with COPD are of working age, so even in the early stages of the disease, the breathlessness and fatigue caused by COPD reduces the ability of the patient to go to work or carry out their normal work activities.

Studies have demonstrated that exacerbations are associated with short and long-term consequences on health status. The downward spiral of more frequent exacerbations leads to decline in lung function; greater anxiety; worsening quality of life; social withdrawal; more exacerbations; and increased risk of hospitalization and mortality.<sup>1</sup>

As symptoms worsen, one is usually forced to take early retirement. COPD has an increasingly profound effect on all aspects of one's life, severely impeding the ability to do even the most basic daily tasks, limiting social interactions and causing depression. In addition to the social stigma and isolation that COPD causes, the disease forces one to adapt their lifestyles dramatically. A typical week for a COPD patient consists of reading, spending most of their time indoors, with infrequent outings to attend pulmonary rehabilitation classes.

Many of the day-to-day activities most take for granted are virtually impossible or extremely difficult for people with severe COPD. These activities include:

- Changing bed sheets
- Bathing and dressing
- Shopping and carrying bags/groceries
- Climbing stairs
- Walking and talking at the same time

While being forced to adapt one's lifestyle in many ways:

- Avoiding restaurants that have stairs or washrooms that are not located on the ground floor.
- Using supplemental oxygen when walking, on aircraft or during pulmonary rehab
- Being extra vigilant of weather conditions to assess wind conditions, humidity and temperature before venturing outside
- Avoiding any exertion outdoors particularly during cold weather or hot humid weather
- Walking at a very slow pace

"Most important to control breathing. My day to day life is radically changed. I take 200% more time to accomplish a task than before I had COPD. The activities I cannot perform are walking, woodworking, driving, cooking, and general day to day tasks. The drugs that I currently use are Spiriva, Advair, Ventolin, and I am on a 4 litre per minute O2 flow all the time. (My FEV1 is 33%) The effectiveness is marginal. All of my specialists are in Victoria, 1100 Kms. away. Impact on my wife is tremendous as she has to devote a lot of time to me and my needs now." Male, 68, British Columbia

#### 4. Experiences with Currently Available Treatments

"I took Advair for a long time and then it actually made me worse. Switched to Breo with excellent results 3 years ago but now it is not working as well. Take the major symptoms, shortness of breath, coughing up mucous and fatigue, and improve those symptoms and you will have made a huge improvement to our quality of life." Female, 71, Ontario, diagnosed in 2012.

There is no cure for COPD, and there are no medications that reverse the loss of lung function caused by COPD. No drug has demonstrated effectiveness in halting the progression of the disease. Currently the goal of medications for COPD is to maintain control of symptoms and prevent or minimize the frequency and duration of exacerbations (which can also be referred to as flare-ups or lung attacks).

As the disease progresses, medications are typically added on. Existing COPD management includes medicines to open the airways and reduce inflammation. The main non-medicinal interventions include pulmonary rehabilitation exercises including breathing lessons and the use of supplemental oxygen. Surgical options include lung transplantation or lung reduction surgery, which are extremely invasive procedures that are only available to a small group of COPD patients who qualify as candidates.

Typical maintenance therapy usually includes the use of Spiriva once per day with Advair or Symbicort twice per day. Rescue medications vary from patient to patient although Ventolin is used quite extensively. These products are to control the condition, but they do not improve long-term lung function. When one experiences an exacerbation Prednisone and antibiotics are often prescribed. Prednisone works quickly but has very dangerous side effects. The over-use of antibiotics has become a national and international concern due to increased resistance, particularly in long-term care facilities.<sup>2</sup>

"I have tried many different drugs. Spiriva in my opinion caused extreme blood pressure which caused uncontrollable nosebleeds. I then tried Advair, Symbicort, Breo all caused dryness in my throat and long bouts of coughing. I was switched to Breezhaler Ultibro and Seebri but still coughed more than usual and was phlegmy. My lung specialist is at a loss as to what to prescribe. She feels I should go back on Respimat and change to different blood pressure medication." Female, 73, Alberta, diagnosed in 2007

## 5. Improved Outcomes

"I know that it is difficult to ensure everyone has the appropriate amount of information to ensure the right treatment and medication to alleviate COPD symptoms. However, it would be great to know the things that are out there that would improve a person's ability to be as active as possible. Doctor appointments often are short and it is difficult to know what to ask sometimes. It is also difficult to describe the impact of COPD, and indeed, given I live with it daily, any diminishing of ability goes unnoticed until I do end up in the doctor's office with a chest infection and need prednisone or some other medication." Male, 73, Brandon, MB

COPD patients need additional therapies that work to improve breathing and lung function, are easy to use, and do not just offer symptomatic or emergency relief. Because chronic obstructive pulmonary disease is treated in a stepwise manner, where treatments are layered on as the disease progresses, additional treatment options are often needed to address continual disease progression, particularly as the disease progresses in severity. As well, long term use of some of these compounds results in a diminishing of the drug's effectiveness. Therefore, availability to alternative but equivalent drugs should be encouraged and supported.

Our association is cognizant of access issues throughout Canada, particularly for economically disadvantaged patients and those reliant on the provincial drug plans. The reimbursement of approved medicines for the treatment of COPD varies dramatically by province. In Alberta, there is generally favourable access to treatments for patients reliant on the provincial drug plan. However, in Atlantic Canada there is generally poor drug access for patients reliant on the public drug plan. In Ontario, there is moderate access to approved COPD drugs for those reliant on the provincial drug plan.

Most of our members are over 65 years of age and for many it is a financial imperative that COPD medications be covered by provincial drug plans. Trelegy Ellipta would be a welcome addition to the provincial formularies across the country.

"It is too risky for me to fly (severe bullous emphysema), so I can't visit out of town family or funerals. I'm also unable to be anesthetized for other surgeries (I should have a thyroidectomy but can't). I have an EHB plan, but that only covers 75% with a \$300 deductible, so it adds up. As a result, I go without other needs being met, because my COPD meds have priority. Fewer exacerbations would be important to me." Female, 71, BC, diagnosed in 2004

## 6. Experience with Drug Under Review

Our members have no experience with this drug under review.

## 7. Anything Else?

Caregivers of COPD patients are impacted to a significant extent and are frequently the spouse or child of the patient. The disease causes serious age-related difficulties and this is especially true with COPD which is more prevalent and pronounced in older Canadians. While each caregiver certainly has their own unique experiences and challenges, family caregivers frequently encounter the following burdens:

- limited time for managing their own health and wellbeing
- feelings of depression and isolation
- anxiety, stress, fatigue, unending days
- increased requirements for social support
- in the case of grown children who become their parent's caregivers, they are often torn between the needs of their young families and the needs of their elderly parent with COPD.

Despite the availability of national and international guidelines, and effective, well-tolerated pharmacological treatments, COPD remains substantially under-diagnosed and under-treated within primary care.<sup>3</sup>

Increasing evidence suggests that initiation of anti-inflammatory agents and long-acting bronchodilators at an early stage can significantly improve the patient's long-term health and quality of life. Recent large-scale trials in COPD have confirmed the long-term benefits of the early initiation of maintenance treatments.

Although there are medications for COPD, patients still complain of symptoms. This brings forth the need for alternative bronchodilators and anti-inflammatory agents that can improve lung function, quality of life, reduce exacerbations and delay disease progression. And, over the long term, improve survival.<sup>4</sup>

It seems apparent to us that any new COPD therapy, like Trelegy Ellipta, that encourages compliance by being simpler to use, is three medications in one dosage, is used only once per day while decelerating or limiting the need for rescue inhalers is worthwhile.

The benefits to society and the healthcare system of this combination therapy accrue through fewer exacerbations resulting in less use of emergency department services while improving a patient's quality of life. The costs associated with COPD affect the family, the healthcare system, and the community as a whole with loss of productivity and the need for additional healthcare services.<sup>5</sup>

As a national patient advocacy group, we encourage and support additional therapeutic choices in managing this debilitating condition.

## 8. References

<sup>1</sup> Activities of Life - The COPD Patient

Journal of COPD, 6:192-200 ISSN: 1541-2555 print / 1541-2563 online

<sup>2</sup> Prevalence of multidrug-resistant gram-negative bacteria among nursing home residents: A systematic review and meta-analysis Sainfer Aliyu, Arlene Smaldone, Elaine Larson *American Journal of Infection Control*, Vol. 45, Issue 5, p512–518 Published in issue: May 01, 2017

<sup>3</sup> Epidemiology and burden of COPD – CTS position statement Pharmacology in patients with COPD

Canadian Journal of Respiratory, Critical Care, and Sleep Medicine – 2017, VOL 1, NO. 4, 222-241

<sup>4</sup> Optimising pharmacological maintenance treatment for COPD in primary care

Prim Care Respir J 2011; 21(1): 33-45

<sup>5</sup> Public Health Agency of Canada. Centre for Chronic Disease Prevention and Control Chronic

Respiratory Diseases. COPD. [http://www.phac-aspc.gc.ca/ccdpc-cpcmc/crd-mrc/copd\\_e.htm](http://www.phac-aspc.gc.ca/ccdpc-cpcmc/crd-mrc/copd_e.htm)

## Appendix 1: Patient Group Conflict of Interest Declaration

To maintain the objectivity and credibility of the CADTH CDR and pCODR programs, all participants in the drug review processes must disclose any real, potential, or perceived conflicts of interest. This Patient Group Conflict of Interest Declaration is required for participation. Declarations made do not negate or preclude the use of the patient group input. CADTH may contact your group with further questions, as needed.

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**

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
AstraZeneca Canada			X	
GlaxoSmithKline Canada			X	
Novartis Pharmaceutical Canada			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.

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