CADTH

CADTH REIMBURSEMENT REVIEW

Clinician Input

dupilumab (Dupixent)

Sanofi Genzyme, a division of sanofi-aventis Canada Inc.

Indication: Asthma

CADTH received clinician input from:

Family Physician Airways Group of Canada

December 17, 2021

CADTH Drug Reimbursement Review
Clinician Group Input Template

CADTH Project Number	**SR0667-000**
Generic Drug Name (Brand Name)	**Dupilumab (Dupixent ®)**
Indication	**DUPIXENT™ is indicated an add-on maintenance treatment in patients aged 12 years and older with severe asthma with a type 2/eosinophilic phenotype or oral corticosteroid-dependent asthma.**
Name of the Clinician Group	**Family Physician Airways Group of Canada**
Author of the Submission	**Alan Kaplan Md CCFP(EM) FCFP**
Contact information	[redacted]

1. About Your Clinician Group

Please describe the purpose of your organization. Include a link to your website (if applicable).

Family Physician Airways Group of Canada

www.fpagc.com

The group is dedicated to helping all family physicians maintain and increase their skill in assisting those with airway diseases like asthma and COPD. The strategy of the group is to maintain a speaker bank, a data bank, and practical tools to help physicians attain these skills.

2. Information Gathering

Please describe how you gathered the information included in the submission.

1. met our executive at our AGM in November 2020

2. Creating programs on asthma and severe asthma has illustrated gaps in care

3. Current treatments

3.1. Describe the current treatment paradigm for the disease

Focus on the Canadian context.

Please include drug and non-drug treatments.

Drugs without Health Canada approval for use in the management of the indication of interest may be relevant if they are routinely used in Canadian clinical practice. Are such treatments supported by clinical practice guidelines?

Treatments available through special access programs are relevant.

Do current treatments modify the underlying disease mechanism? Target symptoms?

Response:

Severe asthma affects less than 10% of asthmatics, but is responsible for >90% of the costs in terms of hard medical costs like exacerbations and ER visits, as well as softer costs like oral steroids and their long term ramifications as well as issues of absenteeism and presenteeism.

Asthma management includes relievers and controllers, or preventers. These are medications to prevent symptoms and prevent exacerbations and range from ICS to ICS/LABA to LTRAs to LAMAs. When these drugs are not sufficient and basics of therapies are reviewed including accurate diagnosis, proper adherence, device technique and review of comorbidities, consideration of a biologic agent can be considered.

We have three classes of biologics, with two currently available. These include antiIgE, anti IL 5 (or antiIL5 receptor) therapies.

These are helpful for many of the phenotypes of severe asthma, but unfortunately this does leave some phenotypes not properly covered for biologic therapy and as such at risk for poor outcomes such as exacerbations.

4. Treatment goals

4.1. What are the most important goals that an ideal treatment would address?

Examples: Prolong life, delay disease progression, improve lung function, prevent the need for organ transplant, prevent infection or transmission of disease, reduce loss of cognition, reduce the severity of symptoms, minimize adverse effects, improve health-related quality of life, increase the ability to maintain employment, maintain independence, reduce burden on caregivers.

Response:

a) improve asthma control

b) prevent exacerbations

c) improve lung function

d) allow patients to reduce and hopefully stop the use of oral corticosteroids

5. Treatment gaps (unmet needs)

5.1. Considering the treatment goals in Section 4, please describe goals (needs) that are not being met by currently available treatments.

Examples:

- *Not all patients respond to available treatments*
- *Patients become refractory to current treatment options*
- *No treatments are available to reverse the course of disease*
- *No treatments are available to address key outcomes*
- *Treatments are needed that are better tolerated*
- *Treatment are needed to improve compliance*
- *Formulations are needed to improve convenience*

Response:

Certain phenotypes of severe asthma patients may not respond to current therapies and would respond to anti IL4R-13 therapy which works at different places in the asthma cytokine cascade.

5.2. Which patients have the greatest unmet need for an intervention such as the drug under review?

Would these patients be considered a subpopulation or niche population?

Describe characteristics of this patient population.

Would the drug under review address the unmet need in this patient population?

Response:

Those with moderate blood eosinophils >150, elevated FENO and severe asthma. This is a group with unmet needs. In addition, due to Dupixent's clear value and indication of atopic dermatitis and nasal polyps, which are frequently comorbid conditions in asthma, the comorbid patient can be effectively treated with a single therapy.

6. Place in therapy

6.1. How would the drug under review fit into the current treatment paradigm?

Is there a mechanism of action that would complement other available treatments, and would it be added to other treatments?

Is the drug under review the first treatment approved that will address the underlying disease process rather than being a symptomatic management therapy?

Would the drug under review be used as a first-line treatment, in combination with other treatments, or as a later (or last) line of treatment?

Is the drug under review expected to cause a shift in the current treatment paradigm?

Response:

Anti IL4-13 is a unique mechanism, different than other biologic asthma therapies

6.2. Please indicate whether or not it would be appropriate to recommend that patients try other treatments before initiating treatment with the drug under review. Please provide a rationale from your perspective.

If so, please describe which treatments should be tried, in what order, and include a brief rationale.

Response:

They should have severe asthma. This would be defined as patients who are exacerbating or uncontrolled despite proper diagnosis being assessed, good adherence, good inhaler technique, and dealing with triggers and comorbidities as best possible

6.3. How would this drug affect the sequencing of therapies for the target condition?

If appropriate for this condition, please indicate which treatments would be given after the therapy has failed and specify whether this is a significant departure from the sequence employed in current practice.

Would there be opportunity to treat patients with this same drug in a subsequent line of therapy? If so, according to what parameters?

Response:

It would likely replace other biologics that might not be as efficacious in certain patients, Due to its multiple actions, it might alleviate costs of other therapies such as for rhinitis and dermatitis and surgical costs for nasal polyps that frequently accompany asthma

6.4. Which patients would be best suited for treatment with the drug under review?

Which patients are most likely to respond to treatment with the drug under review?

Which patients are most in need of an intervention?

Would this differ based on any disease characteristics (e.g., presence or absence of certain symptoms, stage of disease)?

Response:

Asthmatics on at least moderate dose ICS plus LABA (+/- others) with elevated blood eos >150 and/or elevated FENO > 20 ppm.

6.5. How would patients best suited for treatment with the drug under review be identified?

Examples: *Clinician examination or judgement, laboratory tests (specify), diagnostic tools (specify)*

Is the condition challenging to diagnose in routine clinical practice?

No, but requires steps to get to the level of treatment

Are there any issues related to diagnosis? (e.g., tests may not be widely available, tests may be available at a cost, uncertainty in testing, unclear whether a scale is accurate or the scale may be subjective, variability in expert opinion.)

Spirometry and maybe Methacholine as well as CBC and FENO

Is it likely that misdiagnosis occurs in clinical practice (e.g., underdiagnosis)?

Not misdiagnosed, but insufficiently treated

Should patients who are pre-symptomatic be treated considering the mechanism of action of the drug under review?

N/A

Response:

Click here to enter response.

6.6. Which patients would be least suitable for treatment with the drug under review?

Response:

NO data currently for mild to moderate asthmatics. Ineffective if both biomarkers of blood eos < 150 and FENO , 20.

6.7. Is it possible to identify those patients who are most likely to exhibit a response to treatment with the drug under review?

If so, how would these patients be identified?

Response:

As above, severe asthma with Th2 inflammation as recognized by hx, px, and biomarkers as described

6.8. What outcomes are used to determine whether a patient is responding to treatment in clinical practice?

Are the outcomes used in clinical practice aligned with the outcomes typically used in clinical trials?

Response:

FEV1 generally improves within first few months, Exacerbation reduction visible over the first year. Prednisone reduction done as tolerated

6.9. What would be considered a clinically meaningful response to treatment?

Examples:

- *Reduction in the frequency or severity of symptoms (provide specifics regarding changes in frequency, severity, and so forth)*
- *Attainment of major motor milestones*
- *Ability to perform activities of daily living*
- *Improvement in symptoms*
- *Stabilization (no deterioration) of symptoms*

Consider the magnitude of the response to treatment. Is this likely to vary across physicians?

Response:

Click here to enter response.

6.10. How often should treatment response be assessed?

Response:100 cc improvement in FEV1. Venture study showed a 70% reduction in OCS.

Click here to enter response.

6.11. What factors should be considered when deciding to discontinue treatment?

Examples:

- *Disease progression (specify; e.g., loss of lower limb mobility)*
- *Certain adverse events occur (specify type, frequency, and severity)*
- *Additional treatment becomes necessary (specify)*

Response:

Lack of response in symptoms, ACT, FEV1 and exacerbation reduction

6.12. What settings are appropriate for treatment with the drug under review?

Examples: Community setting, hospital (outpatient clinic), specialty clinic

Response:

Outpatient, will need injection q 2 weeks, which can be done at home

6.13. For non-oncology drugs, is a specialist required to diagnose, treat, and monitor patients who might receive the drug under review?

If so, which specialties would be relevant?

Response:

Respirologist, ENT, Allergist, Dermatologist or Family Physician with expertise

7. Additional information

7.1. Is there any additional information you feel is pertinent to this review?

Response:

Price is in-line with other biologics and gives us more choice to optimally treat this severely suffering population

8. Conflict of Interest Declarations

To maintain the objectivity and credibility of the CADTH drug review programs, all participants in the drug review processes must disclose any real, potential, or perceived conflicts of interest. This conflict of interest declaration is required for participation. Declarations made do not negate or preclude the use of the clinician group input. CADTH may contact your group with further questions, as needed. Please see the *Procedures for CADTH Drug Reimbursement Reviews* (section 6.3) for further details.

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

NO

2. Did you receive help from outside your clinician group to collect or analyze any information 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. **Please note that this is required for <u>each clinician</u> that contributed to the input — please add more tables as needed (copy and paste). It is preferred for all declarations to be included in a single document.**

Declaration for Clinician 1

Clinician Information	
Name	*Alan Kaplan MD CCFP*EM) FCFP*
Position	*Chairperson, Family Physician Airways Group of Canada*
Date	*Please add the date form was completed 18-11-2020*
☐	**I hereby certify** that I have the authority to disclose all relevant information with respect to any matter involving this clinician or clinician group with a company, organization, or entity that may place this clinician or clinician group in a real, potential, or perceived conflict of interest situation.

Conflict of Interest Declaration				
Company	**Check Appropriate Dollar Range**			
	$0 to 5,000	**$5,001 to 10,000**	**$10,001 to 50,000**	**In Excess of $50,000**
Astra Zeneca	☐	☐	x	☐
Boehringer Ingelheim	x☐	☐	☐	☐
Covis	☐x	☐	☐	☐
GSK			x	
Novartis	x			
Sanofi	x			
Trudel	x			
Teva	x			
Merck Frosst	x			

Declaration for Clinician 2

Clinician Information	
Name	*Please state full name*
Position	*Please state currently held position*
Date	*Please add the date form was completed (DD-MM-YYYY)*
☐	**I hereby certify** that I have the authority to disclose all relevant information with respect to any matter involving this clinician or clinician group with a company, organization, or entity that may place this clinician or clinician group in a real, potential, or perceived conflict of interest situation.

Conflict of Interest Declaration				
Company	**Check Appropriate Dollar Range**			
	$0 to 5,000	**$5,001 to 10,000**	**$10,001 to 50,000**	**In Excess of $50,000**
Add company name	☐	☐	☐	☐
Add company name	☐	☐	☐	☐
Add or remove rows as required	☐	☐	☐	☐

Declaration for Clinician 3

Clinician Information	
Name	*Please state full name*
Position	*Please state currently held position*
Date	*Please add the date form was completed (DD-MM-YYYY)*
☐	**I hereby certify** that I have the authority to disclose all relevant information with respect to any matter involving this clinician or clinician group with a company, organization, or entity that may place this clinician or clinician group in a real, potential, or perceived conflict of interest situation.

Conflict of Interest Declaration				
Company	**Check Appropriate Dollar Range**			
	$0 to 5,000	**$5,001 to 10,000**	**$10,001 to 50,000**	**In Excess of $50,000**
Add company name	☐	☐	☐	☐
Add company name	☐	☐	☐	☐
Add or remove rows as required	☐	☐	☐	☐

Declaration for Clinician 4

Clinician Information	
Name	*Please state full name*
Position	*Please state currently held position*
Date	*Please add the date form was completed (DD-MM-YYYY)*
☐	**I hereby certify** that I have the authority to disclose all relevant information with respect to any matter involving this clinician or clinician group with a company, organization, or entity that may place this clinician or clinician group in a real, potential, or perceived conflict of interest situation.

Conflict of Interest Declaration				
Company	**Check Appropriate Dollar Range**			
	$0 to 5,000	**$5,001 to 10,000**	**$10,001 to 50,000**	**In Excess of $50,000**
Add company name	☐	☐	☐	☐
Add company name	☐	☐	☐	☐
Add or remove rows as required	☐	☐	☐	☐

Declaration for Clinician 5

Clinician Information	
Name	*Please state full name*
Position	*Please state currently held position*
Date	*Please add the date form was completed (DD-MM-YYYY)*
☐	**I hereby certify** that I have the authority to disclose all relevant information with respect to any matter involving this clinician or clinician group with a company, organization, or entity that may place this clinician or clinician group in a real, potential, or perceived conflict of interest situation.

Conflict of Interest Declaration				
Company	**Check Appropriate Dollar Range**			
	$0 to 5,000	**$5,001 to 10,000**	**$10,001 to 50,000**	**In Excess of $50,000**
Add company name	☐	☐	☐	☐
Add company name	☐	☐	☐	☐
Add or remove rows as required	☐	☐	☐	☐