Taddle Creek
Family Health Team

MEDICAL DIRECTIVE

Title:	Asthma Action Plan	**Number:**	TCFHT-MD12
Activation Date:	10-06-2014	**Review Date:**	Sept 2, 2024
Next Review Date:	April 14, 2026		

Sponsoring/Contact Person(s) *(name, position, contact particulars):*

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Order and/or Delegated Procedure:

Appendix Attached: __ **No** _X_ **Yes**
Title: Appendix C – Asthma Action Plan
Appendix G – Sample Prescription for VHC

Using this directive, the implementer is authorized to:

- Provide patient/caregiver with a written Asthma Action Plan (AAP; see Appendix C), which will be reviewed at each visit (at least yearly), to reinforce self-management skills.
- Educate the patient/caregiver to monitor for symptoms that indicate controlled, uncontrolled and dangerously uncontrolled asthma.
- Direct patient/caregiver to make changes to treatment plan for the purpose of gaining control of uncontrolled asthma (*changes to frequency and/or dose of current medications only, not new prescriptions*).
- Renew prescriptions for green zone medications.
- Educate the patient/caregiver about situations when medical assistance is required.
- Provide prescription for valved holding chambers (VHCs) for insurance coverage purposes (See appendix G).

Recipient Patients:

Appendix Attached: __ **No** _X_ **Yes**
Title: Appendix A – Authorizer Approval Form

Recipients must:

- Be an active patient of a TCFHT primary care provider (PCP) who has approved this directive by signing the Authorizer Approval Form
- Have a diagnosis of asthma
- Be over the age of 6 years
- Meet the conditions identified in this directive

Authorized Implementers:

Implementers must be TCFHT employed Regulated Health Care Providers or Physician Assistants (under the supervision of a physician).

Appendix Attached: ___ No _X_ Yes
Title: Appendix B – Implementer Approval Form
Appendix C – Asthma Action Plan
Appendix D – Reference Inhaled Corticosteroid Dosing
Appendix F – Asthma Action Plan Yellow Zone Formulation Table

Implementers must complete the following preparation and sign the Implementer Approval Form:

***Exception**: Pharmacists are considered to have received equivalent training in medications during their education

- Attend AsthmaTrec, created by the Lung Association of Saskatchewan http://www.resptrec.org
- Review the Primary Care Asthma Program (PCAP) document: "Asthma Diagnosis and Management Algorithm for Primary Care", accessible from http://hcp.lunghealth.ca/wp-content/uploads/2021/04/lhf_asthma_algorithm2021.pdf
- Review Lung Health Foundation (LHF) Asthma Clinical Tools, including resources:
  - Asthma Care Map and Follow-up
  - Asthma Action Plans (Adult & Pediatric)
  - PCAP Best Practice Checklist & Implementation Manual
  - Severe and Difficult to Control Asthma Referral Tool
  - Asthma Quality Standards – Quick Reference Guide
  - Accessible from https://hcp.lunghealth.ca/clinical-tools/
- Review the Canadian Respiratory Guidelines accessible from https://cts-sct.ca/wp-content/uploads/2021/08/CTS-2021-Guideline-Update_Diagnosis-and-management-of-asthma.pdf
- Review Lung Health Foundation Respiratory Medications Reference (April 2023), accessible from https://lunghealth.ca/wp-content/uploads/2023/06/2023-PRINT-Respiratory-Medications-References-Booklet-per-June-6.pdf
- Review "Asthma Action Plan Yellow Zone Guide (Ages 16 years and up)" accessible from https://lunghealth.ca/wp-content/uploads/2024/03/Asthma-Action-Plan-Yellow-Zone-Step-Up-Guide-Ages-≥-16-years-old.pdf
- Review the Ontario Lung Association Document: "Asthma Action Plan Yellow Zone Formulation Table", available on PSS Handouts and Appendix F and accessible from https://hcp.lunghealth.ca/wp-content/uploads/2020/02/Dose-Adjustment-in-Yellow-Zone.pdf
- The Electronic Asthma Management System (eAMS), accessible from https://www.easthma.ca

Recommended additional reading:

- Review Asthma Best Practices Implementation Toolkit, accessible from https://toolkit.lunghealth.ca/asthma-diagnosis/
- Canadian Thoracic Society (CTS) Guideline Library, accessible from https://cts-sct.ca/guideline-library/
  - CTS Position Statement on Climate Change and Choice of Inhalers for Patients with Respiratory Disease https://www.tandfonline.com/doi/epdf/10.1080/24745332.2023.2254283?needAccess=true

- Addressing therapeutic questions to help Canadian physicians optimize asthma management for their patients during the COVID-19 pandemic https://cts-sct.ca/wp-content/uploads/2020/05/CJRCCSM_Addressing-therapeutic-questions-to-optimize-asthma-management-during-the-COVID-19-pandemic.pdf

- 2021 Canadian Thoracic Society Guideline – A focused update on the management of very mild and mild asthma, accessible from https://cts-sct.ca/wp-content/uploads/2021/03/2021-CTS-Guideline-very-mild-and-mild-asthma.pdf
- Did not include CTS position statement on recognition and management of severe asthma as this would not be authorized action for implementers under this medical directive (would refer to respirology; also position statement under review)
- Considerations regarding school return for children and adolescents with asthma: A Canadian Thoracic Society position statement https://cts-sct.ca/wp-content/uploads/2021/08/CTS-2021-Guideline-Update_Diagnosis-and-management-of-asthma.pdf

Indications:

The authorized implementers may apply this directive pursuant to an order by a PCP.

Appendix Attached: ___ No _X_ Yes
Title:
Appendix D – Reference Inhaled Corticosteroid Dosing
Appendix E – Recommended Controller Step-Up Therapy in Yellow Zone (ages 6-15 yrs)
Appendix F – Asthma Action Plan Yellow Zone Formulation Table
Appendix G – Sample Prescription for VHCs

Considerations:

- Renew prescriptions for green zone medications.
- Adjustment of inhaled controller therapy for individuals 16 years of age and older based on Yellow Zone Formulation Table (Appendix F).
  - Note: For adjustment of inhaled controller therapy for individuals ages 6-15: Consultation with the PCP is recommended due to limited evidence for inhaler adjustment in the yellow zone (Appendix E).
- Provide prescription for VHCs for insurance coverage purposes (See appendix G).

Contraindications:

- Difficulty understanding, reading, or following written directions, either because of a medical condition, language barrier, age, or at the implementer's discretion.

Consent:

Appendix Attached: _X_ No ___ Yes
Title:

Consent is implied upon referral for asthma care visit, asthma education, spirometry or completion of an AAP. However, the authorized implementer will explain the purpose and procedures involved in the AAP to further obtain verbal consent from the patient or caregiver.

Guidelines for Implementing the Order/Procedure:

Appendix Attached: ___ No _X_ Yes
Title:
Appendix C – Asthma Action Plan (adult and pediatric)
Appendix D – Reference Inhaled Corticosteroid Dosing
Appendix F – Asthma Action Plan Yellow Zone Formulation Table
Appendix G – Sample Prescription for VHCs

- Refer to Appendices
- Implementer must educate the patient/caregiver on how to recognize an acute exacerbation of asthma and how an AAP can assist with asthma management. Patient/caregiver education also includes how to recognize loss of control and what to do if the symptoms worsen.
- AAPs can be tailored for both pediatric and adult patients (see Appendix C).
- Yellow zone medication changes will be based upon Ontario Lung Association document "Asthma Action Plan Yellow Zone Formulation Table" for individuals ≥ 16 years of age (Appendix F).
- Patients with known or newly diagnosed asthma should be encouraged to register for eAMS to promote self-management and timely communication with implementer/PCP during an exacerbation

Documentation and Communication:

Appendix Attached: ___ No __X__ Yes
Title:
Appendix C – Asthma Action Plan
Appendix D – Reference Inhaled Corticosteroid Dosing
Appendix F – Asthma Action Plan Yellow Zone Formulation Table

- At each asthma care visit, the implementer will review the AAP with the patient and document the visit using "Resp. Prog. - Control Assessment (Asthma)" Custom Form.
- Any and all changes to the AAP must be documented in the chart through use of "Adult Asthma Action Plan – Mar 2022" Custom Form, which can be printed and provided as a hard copy to patient/caregiver.
- Patients who have registered for eAMS will receive a notification to complete asthma questionnaire prior to scheduled appointment; responses will automatically be documented into EMR as a chart note; depending on an individual's asthma medication regimen, an AAP will be generated via eAMS to be reviewed and finalized by the implementer/PCP then made available to the patient on the eAMS portal (a pdf file of the AAP must be downloaded from the portal and attached in EMR)
- "Asthma Action Plan Yellow Zone Formulation Table" for individuals ≥ 16 years of age is available in EMR Handouts for clinical reference (Appendix F).
- All medication changes shall be entered in the patient profile in EMR CPP and patient's pharmacy notified by fax of any new prescriptions.

Review and Quality Monitoring Guidelines:

Appendix Attached: __X__ No ___ Yes
Title:

- Routine renewal will occur annually on the anniversary of the activation date. Renewal will involve a collaboration between the authorizing primary care providers and the authorized implementers.
- At any such time that issues related to the use of this directive are identified, TCFHT must act upon the concerns and immediately undertake a review of the directive by the authorizing primary care providers and the authorized implementers.
- This medical directive can be placed on hold if routine review processes are not completed, or if indicated for an ad hoc review. During the hold, implementers cannot perform the procedures under authority of the directive and must obtain direct, patient-specific orders for the procedure until it is renewed.
- If new information becomes available between routine renewals, such as the publishing of new clinical practice guidelines, and particularly, if this new information has implications for

unexpected outcomes, the directive will be reviewed by the authorizing physician/nurse pracititioner and a mimimum of one implementer.

References:

Yang CL, Hicks EA, Mitchell P, Reisman J, Podgers D, Hayward KM, Waite M, Ramsey CD (2021). Canadian Thoracic Society 2021 Guideline update: Diagnosis and management of asthma in preschoolers, children and adults, Canadian Journal of Respiratory, Critical Care, and Sleep Medicine, DOI: 10.1080/24745332.2021.1945887. Available online at: https://cts-sct.ca/wp-content/uploads/2021/08/CTS-2021-Guideline-Update_Diagnosis-and-management-of-asthma.pdf

Global Strategy for Asthma Management and Prevention, Global Initiative for Asthma (GINA) 2024. Accessed Aug 27, 2024 from https://ginasthma.org/wp-content/uploads/2024/05/GINA-2024-Strategy-Report-24_05_22_WMS.pdf

Lung Health Foundation Respiratory Medications Reference (2023). Accessed Aug 27, 2024 from https://lunghealth.ca/wp-content/uploads/2023/06/2023-PRINT-Respiratory-Medications-References-Booklet-per-June-6.pdf

Lung Health Foundation Adult Asthma Action Plan (2022). Accessed Aug 27, 2024 from http://hcp.lunghealth.ca/wp-content/uploads/2023/02/Adult-Asthma-Action-Plan-November-2022.pdf

Lung Health Foundation Pediatric Asthma Action Plan (2022). Accessed Aug 27, 2024 from http://hcp.lunghealth.ca/wp-content/uploads/2023/02/Pediatric-Asthma-Plan-November-2022.pdf

Asthma Action Plan Yellow Zone Guide (Ages 16 years and up) (2024). Accessed Aug 27, 2024 from https://lunghealth.ca/wp-content/uploads/2024/03/Asthma-Action-Plan-Yellow-Zone-Step-Up-Guide-Ages-≥-16-years-old.pdf

Electronic Asthma Management System (eAMS).
Accessed Aug 27, 2024 from https://www.easthma.ca/index

Appendix A:
Authorizer Approval Form

Name	Signature	Date
_____	_____	_____
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Appendix B:
Implementer Approval Form

To be signed when the implementer has completed the required preparation, and feel they have the knowledge, skill, and judgement to competently carry out the actions outlined in this directive.

Name	Signature	Date
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Appendix C:

Adult Asthma Action Plan (age ≥ 16 years)

Adult Asthma Action Plan (16yrs+)

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NAME: _____ **DATE:** _____

Review your action plan with your healthcare provider at every visit.

EMERGENCY CONTACT: _____ **PHONE:** _____

PRESCRIBER NAME: _____ **PHONE:** _____

PERSONAL BEST PEAK FLOW _____ litres per minute.

The goal of asthma treatment is to live a healthy, active life. It is very important to remain on your maintenance medication, even if you are not having any asthma symptoms.

Go: Maintain Therapy

DESCRIPTION:

You have **ALL** of the following:

- Use your reliever **no more than 2** times per week
- Cough, wheezing, shortness of breath or chest tightening **no more than 2** days per week
- Can do physical activities and sports without difficulty
- Night asthma symptoms less than 1 night per week
- No missed regular activities or school/work

Peak flow: ≥ 90% personal best, or > _____.

Other: If you consistently need your reliever 3 times per week or have symptoms 3 days per week, your provider may need to adjust your maintenance medications.

INSTRUCTIONS:

MEDICATION	PUFFER COLOUR	DOSE	PUFFS	TIMES PER DAY
CONTROLLER				
RELIEVER				

Other:

Caution: Step Up Therapy

DESCRIPTION:

You have **ANY** of the following:

- Use your reliever **4 or more** times per week*
- Have daytime cough, wheezing, shortness of breath or chest tightening **4 or more** days per week*
- Physical activity is limited due to symptoms
- Asthma symptoms at night or in early AM 1 or more nights per week

*These criteria for an asthma flare may differ from what your provider uses to decide if your asthma is well controlled overall

Peak flow: 60-80% personal best, or _____ to _____.

Other:

INSTRUCTIONS:

Increase _____ (colour) controller (_____ (medication)) to:
____ puffs ____ times per day for ____ days.

Add _____ (colour) controller (_____ (medication)):
____ puffs ____ times per day for ____ days.

Take _____ (colour) reliever (_____ (medication)) 1-2 puffs every 4 to 6 hours as needed.

If no improvement in your symptoms and/or peak flows in 2-3 days, or your reliever only lasts for 2-3 hours, go to the red zone.

Other:

Stop: Get Help Now

DESCRIPTION:

You have **ANY** of the following:

- Reliever lasts for 2-3 hours or less
- Continuous asthma symptoms
- Continuous cough
- Wheezing all the time
- Severe shortness of breath
- Sudden severe attack of asthma

Peak flow: <60% personal best, or < _____.

Other:

INSTRUCTIONS:

Take _____ (colour) reliever (_____ (medication))
____ puffs every 10-30 minutes as needed.

Asthma symptoms can get worse quickly. When in doubt, seek medical help.

Asthma can be life-threatening - DO NOT WAIT!

If you cannot contact your doctor:
Call 911 for an ambulance, or go directly to the Emergency Department!

Bring this asthma action plan with you to the emergency room or hospital.

Stay calm.

Other:

Controller - has a lasting effect, treats inflammation, prevents asthma attacks, may take time to act.
Reliever - rapidly relieves symptoms of cough, wheeze, lasts 4 hours.

Allergies may be triggering your asthma - avoid the things that you are allergic to and have allergy skin testing if you are unsure.

Adapted from Gupta S. et al. Respiration 2012;84(5):406-15.

Last Updated 31-07-2023 by Jessica Lam, RPh

Pediatric Asthma Action Plan

Pediatric Asthma Action Plan (1-15years)

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Always remain on your green zone medication, even if you are having no symptoms of asthma.

NAME: _____ **DATE:** _____

HEALTHCARE PROVIDER: _____ **PHONE:** _____

Review your action plan with your healthcare provider at every visit.

Go: Maintain Therapy

DESCRIPTION

You/your child has **ALL** of the following:

- Use of reliever puffer **no more than 2** times per week
- Daytime symptoms (cough, wheeze or breathing problems) **no more than 2** times per week
- Ability to do physical activity (playing or sports)
- No nighttime asthma symptoms
- Not missing regular activities or school
- No symptoms of a cold

Other: If you consistently need your reliever 3 times per week or have symptoms 3 days per week, your provider may need to adjust your maintenance medications.

INSTRUCTIONS

MEDICATION	PUFFER COLOUR	DOSE	PUFFS	TIMES A DAY
CONTROLLER				
RELIEVER				
				every 4 hrs as needed

☐ Use reliever before exercise

Other:

Caution: Step Up Therapy

DESCRIPTION

You/your child has **ANY** of the following:

- Use your reliever puffer **4 or more** times per week*
- Daytime symptoms (cough, wheeze or breathing problems) **4 or more** times per week*
- Difficulty with physical activity (playing or sports)
- Asthma symptoms for 1 or more nights per week
- Missing regular activities or school
- Symptoms of a cold

*These criteria for an asthma flare may differ from what your provider uses to decide if your asthma is well controlled overall.

Other:

INSTRUCTIONS

☐ Take _____ (colour) reliever ____ puffs every 4 hours as needed, and:

☐ Continue to take your green zone medication

☐ If reliever puffer is needed consistently every 4 hours, or if there is no improvement in your symptoms in 2-3 days, contact your healthcare provider

Other:

Stop: Get Help Now

DESCRIPTION

You/your child has **ANY** of the following:

- Reliever puffer lasts **less than** 3 hours
- "Pulling in" of skin in the neck or between or below ribs
- Feeling very short of breath
- Difficulty talking
- Continuous wheeze or cough

Other:

INSTRUCTIONS

Take _____ (colour) reliever 4-6 puffs every 15-20 minutes, and

Call 911 or go directly to the emergency department

Asthma symptoms can get worse quickly

Asthma can be a life-threatening illness - DO NOT WAIT!

Bring this asthma action plan with you to the emergency department

Stay calm

Other:

Use a spacer device (holding chamber) with all metered dose inhalers.

Lung Health Line 1-888-344-LUNG (5864) or lunghealth.ca

Pediatric Asthma Action Plan (1-15 years)

The goal of asthma treatment is to live a healthy, active life

This Asthma Action Plan outlines steps for you to self-manage asthma when you start having more symptoms. Your healthcare provider might also change your usual asthma treatment according to the level of asthma control over time. Review all symptoms and this plan regularly with your healthcare provider.

Asthma Triggers

Colds are the most common trigger - wash hands often

Smoking or being in a house or a car where someone smokes

Fumes, chemicals and strong scents

Check the Air Quality Health Index before you leave home: **airhealth.ca.**

Allergies may be triggering your asthma

Follow the instructions below if you are allergic to any of these: (have allergy skin testing if you are unsure)

Pets with fur or feathers - If you have pets, wash them regularly and keep them out of bedrooms.

Pollen (eg. flowers, grass, trees) - Try to stay inside on high pollen days and avoid freshly cut grass.

Dust and dust mites - Wash bedsheets in hot water and vacuum with a HEPA filter or central vacuum regularly; consider mattress and pillow covers.

Mould - Keep bathroom and basement dry, clean visible mould, avoid decomposing leaves in the fall.

Simple ways to take care of your asthma:

- ✓ Avoid triggers.
- ✓ Know your medications and how and when to take them. Take controller medications regularly.
- ✓ Follow your action plan.
- ✓ After any emergency room visit, schedule a follow-up appointment with your healthcare provider in the next 2 weeks.
- ✓ Always have your reliever medication with you.
- ✓ Use appropriate spacer (holding chamber) with metered dose inhaler.

For Healthcare Providers

At every visit, re-assess adherence to therapy, inhaler technique, asthma control criteria and environmental control.

For children 1-5 years, refer to the figure provided and the 2015 Diagnosis and Management of Asthma in Preschoolers position statement** to determine treatment and medication doses required to maintain ongoing asthma control. For children 6 years and over, refer to the CTS 2012 Asthma guideline update†.

An exacerbation requiring rescue systemic corticosteroids or hospitalization is an indication of suboptimal control and should prompt reassessment.

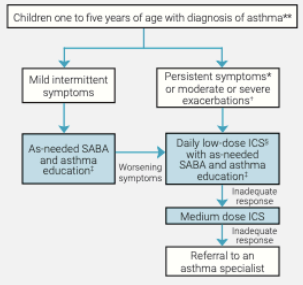

Figure 2) Treatment algorithm for preschoolers with asthma.*Symptoms occurring ≥8 days/month, ≥8 days/month with use of inhaled short-acting β2-agonists (SABA), ≥1 night awakening due to symptoms/month, any exercise limitation/month or any absence from usual activities to asthma symptoms; †Episodes requiring rescue oral corticosteroids or hospital admission; ‡Asthma education including environmental control and a written self-management plan; §Inhaled corticosteroids (ICS) are more effective than leukotriene receptor antagonists (LTRA)

This asthma action plan was adapted from Gupta S., et al. Respiration 2012; 84(5):406-15. Pictograms in the asthma action plan were adapted from Tulloch J., et. al. Can Respir J. 2012 Jan-Feb;19(1):26-31 Instructions were designed to align with: **Ducharme FM, Dell SD, Radhakrishnan D, et al. Diagnosis and management of asthma in preschoolers: A Canadian Thoracic Society and Canadian Paediatric Society position paper. Can Respir J 2015; 22(3):135-143 and †Lougheed MD, Lemiere C, Ducharme F, et al. Canadian Thoracic Society 2012 guideline update: Diagnosis and management of asthma in preschoolers, children and adults. Can Respir J 2012: Vol 19(2), 127-64.

For information on how this action plan was developed, or to download a copy of this action plan and/or for associated resources, please visit https://hcp.lunghealth.ca/programs-tools/clinical-tools/

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Last Updated 31-07-2023 by Jessica Lam, RPh

Appendix D:
Reference Inhaled Corticosteroid Dosing

Table 8. Comparative inhaled corticosteroids (ICS) dosing categories in preschoolers, children and adults.

	Preschoolers (1-5 years of age)		Children (6-11 years of age)			Adults and Adolescents (12 years of age and over)		
Corticosteroid (tradename)	**Low**	**Medium**	**Low**	**Medium**	**High**	**Low**	**Medium**	**High ****
Beclomethasone dipropionate HFA (QVAR)	100	200	≤ 200	201-400	> 400	≤ 200	201-500	> 500 (max 800)
Budesonide* (Pulmicort)	n/a	n/a	≤ 400	401-800	> 800	≤ 400	401-800	> 800 (max 2400)
Ciclesonide* (Alvesco)	100	200	≤ 200	201-400	> 400	≤ 200	201-400	> 400 (max 800)
Fluticasone furoate* (Arnuity)	n/a	n/a	n/a	n/a	n/a	100		200 (max 200)
Fluticasone propionate (Flovent)	< 200	200-250	≤ 200	201-400	> 400	≤ 250	251-500	> 500 (max 2000)
Mometasone furoate* (Asmanex)	n/a	n/a	100	≥ 200- < 400	≥ 400	100-200	> 200-400	> 400 (max 800)

Note. Dosing is in micrograms (mcg), dosing categories are approximate, based on a combination of approximate dose equivalency as well as safety and efficacy data.
*Licensed for once daily dosing in Canada
**Maximum (max) doses are the maximum doses approved for use in Canada.
Doses highlighted are not approved for use in Canada with the following exceptions: Beclomethasone is approved for children ≥ 5 years of age; Mometasone is approved for children ≥ 4 years of age; Maximum dose of fluticasone propionate is 200 mcg/day in children 1-4 years of age (250 mcg was included in this age group because the 125 mcg inhaler is often used for adherence and cost), Maximum dose of fluticasone propionate is 400 mcg/day in children 4-16 years of age.

Reference: Yang CL, et al. Canadian Thoracic Society 2021 Guideline Update: Diagnosis and management of asthma in preschoolers, children and adults. Canadian Journal of Respiratory, Critical Care, and Sleep Medicine, DOI: 10.1080/24745332.2021.1945887.

Appendix E:
Recommended Controller Step-Up Therapy in Yellow Zone (ages 6-15 yrs)

Note: Therapy below requires PCP prescription

Table 9. Yellow Zone action plan recommendations based on age and maintenance controller therapy.

Maintenance therapy	Recommended controller step-up therapy
Preschoolers (under 6 years of age) and children (6 to 11 years of age)	
No maintenance	• No step up in controller medication • Consider starting regular controller therapy
ICS or LTRA or ICS/LABA**	• No step up in controller medication • In children with a history of severe exacerbation in last year and who fail to respond to SABA, consider prednisone/prednisolone 1 mg/kg x 3-5 days*
Adults (12 years of age and older)	
No maintenance	• No step up in controller • Consider starting regular controller therapy or PRN bud/form
As needed bud/form	• Increase bud/form to a maximum of 8 inhalations per day
Daily ICS or LTRA	In individuals ≥16 years of age and older with a history of a severe exacerbation in the last year: • **1st choice**: trial of ≥4 fold increase in ICS for 7 to 14 days • **2nd choice**: Prednisone 30-50 mg for at least 5 days* Otherwise no step up in controller medication.
Daily bud/form	• **1st choice**: Increase bud/form to a maximum of 4 inhalations twice daily for 7 to 14 days (≥16 years of age and older) or use bud/form as reliever and a controller (maximum 8 inhalations per day) (≥12 years of age and older) • **2nd choice**: Prednisone 30-50 mg for at least 5 days*
Daily fluticasone propionate/salmeterol, mometasone/formoterol, fluticasone furoate/vilanterol	In individuals ≥16 years of age with a history of a severe exacerbation in the last year: • **1st choice**: trial of ≥4 fold increase in ICS (higher ICS strength of ICS/LABA combination or extra ICS) for 7 to 14 days • **2nd choice**: Prednisone 30-50 mg for at least 5 days* Otherwise no step up in controller medication.

*If regular need for step up therapy or need for a course of systemic steroids, address reasons for poor control and reassess/initiate controller therapy.
**Does not apply to preschoolers.

Notes:

- Refer to Appendix D for low-, medium-, high-ICS dosing
- ICS/LABA combination does not apply to pre-schoolers <6 years of age; there is no clear evidence of the benefit of ICS and LABA combination therapy in the pediatric population
- If patient uncontrolled on regular-low-dose ICS, authorized implementer will consult with PCP and/or consider referral to Pediatric Respirology

Reference: Yang CL, et al. Canadian Thoracic Society 2021 Guideline Update: Diagnosis and management of asthma in preschoolers, children and adults. Canadian Journal of Respiratory, Critical Care, and Sleep Medicine, DOI: 10.1080/24745332.2021.1945887.

Oral corticosteroid dosage forms and strengths available

Corticosteroid	Dosage form	Strengths	Dosage regimen for exacerbations
Prednisone	Oral tablets	1, 5, 50mg	Prednisone 30-50mg po daily x 5-7 days
Prednisolone (Pediapred)	Oral liquid solution	1mg/mL	1mg/kg/day (max 50mg) po x 3-5 days

Note: Tapering is not needed if oral corticosteroid prescribed <2 weeks

Appendix F:

Asthma Action Plan Yellow Zone Formulation Table (age ≥ 16 years old)

BREATHE
the lung association

Adjustment of Inhaled Controller Therapy of Asthma in the Yellow Zone, Based on the Inhaler Product Used in the Green Zone
Age 16 Years and Older

The Canadian Thoracic Society and other international asthma guideline bodies recommend a temporary, 4-5 fold increase in the inhaled corticosteroid (ICS) dose in selected patients in response to acutely worsening asthma symptoms, as part of a self-management asthma action plan (AAP).[1] The green-yellow-red zone framework in the AAP describes stable asthma, acutely worsening asthma, and a severe asthma exacerbation, respectively.

However, as confirmed in a recent review,[2] there are several practical challenges in broadly applying these recommendations. For certain dosing situations, guidelines provide no clear approach. In other situations, such as patients on a moderate to high baseline inhaled corticosteroid (ICS) dose (either as ICS monotherapy or in combination with a long-acting beta agonist (LABA)], a 4-5 fold dose increase in the yellow zone would exceed the manufacturer's recommended maximum daily dose. In such situations, clinicians might either choose to temporarily exceed manufacturer-recommended doses, or to directly recommend oral corticosteroids. This decision must be individualized, and will require consideration of clinician comfort level, patient preferences, medication cost (inhaled corticosteroid medications are more costly than oral corticosteroids), and medication availability (patients can easily increase use of their existing ICS, but may not have rapid access to oral corticosteroids). In these cases, both options are presented, and are considered equivalent, with no intended preferential hierarchy. Also, where there is evidence of a ceiling ICS dose that is equivalent to a course of oral prednisone, we have listed dose increases that achieve the ceiling dose but may be less than a 4-fold increase from the patient's green zone baseline dose (e.g. see tables for fluticasone, budesonide, ciclesonide). Where there is no evidence to confirm an ICS ceiling dose equivalent to prednisone (e.g. mometasone) we have not included a recommendation in the table, but have included a recommendation in the footnotes to the table. Support for a possible ceiling dose (ie, producing a prednisone-like effect) for mometasone is inferred based on pharmacokinetic similarity of mometasone to fluticasone propionate.

Furthermore, dose increases in the yellow zone can be achieved in a variety of ways, including changes to the number and/or frequency of inhalations, through *addition* of a new inhaler, or through temporary *replacement* of the baseline medication with a more potent (ie, higher strength) inhaler. To address these various implementation challenges, we have adopted evidence-based approaches recommended by authors Kouri, et al.[2] These approaches seek to maximize patient satisfaction and adherence while minimizing patient errors. For example, recommended dose adjustments are based on use of the patient's existing inhaler where possible. A strategy of stepping up to an inhaler strength that is higher than the current green zone inhaler as a way of increasing the ICS dose may be logistically challenging for the patient and therefore is deemed a less desirable option (although such options can be considered and are listed in the table footnotes where applicable for completeness). However, we note that approaches to reaching each target ICS dose level in the AAP yellow zone may vary, and should be ideally individualized based on patient preferences.

We also note that there are certain special considerations, as follows:

1) In patients with a history of sudden and severe exacerbations, and/or presenting with peak expiratory flow (PEF) or forced expiratory volume in 1 second (FEV1) ≤60% of personal best/predicted, the preferred first line therapy for the yellow zone of the action plan is prednisone 30-50 mg daily for 5-7 days.

2) In patients who fail to improve clinically within 2-3 days of increase in inhaled controller medication, and/or have a rapid clinical deterioration, and/or a PEF or FEV1 that falls to ≤60% of their personal best value, rescue therapy with prednisone 30-50 mg daily for 5-7 days is recommended.

Last Updated Sept 2, 2024 by Jessica Lam, RPh

Tables below list dosing options that are convenient and do not exceed 4 puffs per dose time. Dose recommendations listed in red exceed the manufacturer's maximum recommended dose. The **footnotes for each table contain essential information** for interpreting table and applying the information in clinical practice.

Maintenance Controller Medication in the Green Zone	Total daily maintenance ICS dose in mcg	Recommended dose adjustment	Dose of ICS after adjustment	Total daily ICS dose after adjustment (mcg)	Degree of increase in ICS over baseline
Fluticasone propionate pMDI Flovent HFA®					
• 50 mcg/puff 1 puff bid	100	4 puffs bid	200 mcg bid	400	4-fold
• 50 mcg/puff 2 puff bid	200	4 puffs qid**	200 mcg qid	800	4-fold
• 125 mcg/puff 1 puff bid*	250	4 puffs bid	500 mcg bid	1000	4-fold
• 125 mcg/puff 2 puffs bid	500	4 puffs qid**	500 mcg qid	2000	4-fold
• 250 mcg/puff 1 puff bid*	500	4 puffs bid	1000 mcg bid	2000	4-fold
• 250 mcg/puff 2 puffs bid	1000	4 puffs bid	1000 mcg bid	2000	2-fold***

*Although the manufacturer recommends that the usual dose be obtained using 2 puffs from each available strength of Flovent HFA® pMDI, **one** puff dosing regimens may be in clinical use.
**A qid dosing regimen is required to achieve a 4-fold increase while avoiding an excessive number of puffs at each dose time.
***Although this represents less than a 4-fold dose increase, there is evidence that a transient dose increase to a dose of 2000 mcg/day has a comparable effect to oral corticosteroids, regardless of the baseline ICS dose.[2]

Maintenance Controller Medication in the Green Zone	Total daily maintenance ICS dose in mcg	Recommended dose adjustment	Dose of ICS after adjustment	Total daily ICS dose after adjustment (mcg)	Degree of increase in ICS over baseline
Fluticasone propionate Flovent® Diskus					
• 100 mcg/inh 1 inh bid	200	4 inh bid	400 mcg bid	800	4-fold
• 250 mcg/inh 1 inh bid	500	4 inh bid	1000 mcg bid	2000	4-fold
• 500 mcg/inh 1 inh bid	1000	2 inh bid	1000 mcg bid	2000	2-fold*
• 500 mcg/inh 2 inh bid	2000	Prednisone 30-50 mg daily			

*Although this represents less than a 4-fold dose increase, there is evidence that a transient dose increase to a dose of 2000 mcg/day has a comparable effect to oral corticosteroids, regardless of the baseline ICS dose.[2]

Maintenance Controller Medication in the Green Zone	Total daily maintenance ICS dose in mcg	Recommended dose adjustment	Dose of ICS after adjustment	Total daily ICS dose after adjustment (mcg)	Degree of increase in ICS over baseline
Fluticasone furoate® Arnuity® Ellipta					
• 100 mcg/inhalation 1 inh daily	100	*Option 1:* Increase to 4 puffs daily* *Option 2:* Prednisone 30-50 mg daily**	400 mcg daily	400	4-fold
• 200 mcg/inhalation 1 inh daily	200	*Option 1:* Increase to 4 puffs daily* *Option 2:* Prednisone 30-50 mg daily**	800 mcg daily	800	4-fold

* This dose exceeds product monograph total daily dose limits intended for chronic daily use. A short term dose increase beyond these limits is unlikely to carry any significant safety risks, however formal safety testing data are not available and the decision to

pursue this approach should be based on patient and clinician comfort. We also note that this product is relatively new on the market, and effects of higher doses are less certain than for other formulations.
** Ask patients to contact the health care provider to consider a prednisone prescription and/or provide a standing prescription for prednisone 30-50 mg daily for 5-7 days. Ensure that patients are appropriately counseled about the risks of short-term prednisone use.

Maintenance Controller Medication in the Green Zone	Daily maintenance ICS dose in mcg	Recommended dose adjustment	Dose of ICS after adjustment	Total daily ICS dose after adjustment (mcg)	Degree of increase in ICS over baseline
Budesonide Pulmicort® Turbuhaler®					
• 100 mcg/inhalation 1 inh bid	200	4 inhalations bid*	400 mcg bid	800	4-fold
• 200 mcg/inhalation 1 inh bid	400	4 inhalations bid*	800 mcg bid	1600	4-fold
• 400 mcg/inhalation 1 inh bid	800	3 inhalations bid	1200 mcg bid	2400	3-fold**
• 400 mcg/inhalation 2 inh bid	1600	3 inhalations bid	1200 mcg bid	2400	1.5-fold**

*Although maintaining the baseline dosing frequency is thought to reduce medication dosing errors, a qid regimen of budesonide (not shown in the table) may have superior efficacy to a bid regimen, and can be considered.
**Although this represents less than a 4-fold dose increase, there is evidence that a transient dose increase to a dose of 2400 mcg/day has a comparable effect to oral corticosteroids, regardless of the baseline ICS dose.[2]

Maintenance Controller Medication in the Green Zone	Daily maintenance ICS dose in mcg	Recommended dose adjustment	Dose of ICS after adjustment	Total daily ICS dose After adjustment (mcg)	Degree of increase in ICS over baseline
Beclomethasone pMDI Qvar®					
• 50 mcg/puff 1 puff bid	100	4 puffs bid (or 2 puffs qid)	200 mcg bid 100mcg qid	400 400	4-fold 4-fold
• 50 mcg/puff 2 puffs bid	200	4 puffs qid*	200 mcg qid	800	4-fold
• 100 mcg/puff 1 puff bid	200	4 puffs bid (or 2 puffs qid)	400 mcg bid 200mcg qid	800 800	4-fold 4-fold
• 100 mcg/puff 2 puffs bid	400	*Option 1:* Increase to 4 puffs qid*;** *Option 2:* Prednisone 30-50 mg daily***	400 mcg qid	1600	4-fold

*A qid dosing regimen is required to achieve a 4-fold increase while avoiding an excessive number of puffs at each dose time
** This dose exceeds product monograph total daily dose limits intended for chronic daily use. A short term dose increase beyond these limits is unlikely to carry any significant safety risks, however formal safety testing data are not available and the decision to pursue this approach should be based on patient and clinician comfort.
*** Ask patients to contact the health care provider to consider a prednisone prescription and/or provide a standing prescription for prednisone 30-50 mg daily for 5-7 days. Ensure that patients are appropriately counseled about the risks of short-term prednisone use.

Maintenance Controller Medication in the Green Zone	Daily maintenance ICS dose in mcg	Recommended dose adjustment	Dose of ICS after adjustment	Total daily ICS dose after adjustment (mcg)	Degree of increase in ICS over baseline
Ciclesonide pMDI Alvesco®					
• 100 mcg/puff 1 puff daily	100	4 puffs daily	400 mcg daily	400	4-fold
• 100 mcg/puff 2 puffs daily	200	4 puffs bid	400 mcg bid	800	4-fold
• 200 mcg/puff 1 puff daily	200	4 puffs daily* (or 2 puffs bid)	800 mcg daily 400 mcg bid	800 800	4-fold 4-fold
• 200 mcg/puff 2 puffs daily	400	4 puffs bid**	800 mcg bid	1600	4-fold
• 200 mcg/puff 2 puffs bid	800	4 puffs bid**	800 mcg bid	1600	2-fold***

* Although maintaining the baseline dosing frequency is thought to reduce medication dosing errors, the manufacturer recommends splitting the dose into a bid schedule whenever the total administered dose is > 400 mcg/day, and this can be considered.
** This dose exceeds product monograph total daily dose limits intended for chronic daily use. However, a short term increase to this dose level was shown to be safe and effective in a clinical trial.[2]
***Although this represents less than a 4-fold dose increase, there is evidence that a transient dose increase to a dose of 1600 mcg/day has a comparable effect to oral corticosteroids, regardless of the baseline ICS dose.[2]

Maintenance Controller Medication in the Green Zone	Daily maintenance ICS dose in mcg	Recommended dose adjustment	Dose of ICS after adjustment	Total daily ICS dose after adjustment (mcg)	Degree of increase in ICS over baseline
Mometasone Asmanex® Twisthaler®					
• 100 mcg/inhalation 1 inh daily	100	4 inhalations daily	400 mcg daily	400	4-fold
• 200 mcg/inhalation 1 inh daily	200	4 inhalations daily* (or 2 inh bid)	800 mcg daily 400 mcg bid	800 800	4-fold 4-fold
• 200 mcg/inhalation 1 inh bid	400	*Option 1:* Increase to 4 inh bid** *Option 2:* Prednisone 30-50 mg daily****	800 mcg bid	1600	4-fold
• 400 mcg/inhalation 1 inh daily	400	*Option 1:* Increase to 4 inh daily** (or 2 inhalations bid) *Option 2:* Prednisone 30-50 mg daily****	1600 mcg daily 800 mcg bid	1600 1600	4-fold 4-fold
• 400 mcg/inhalation 1 inh bid***	800	Prednisone 30-50 mg daily****			

* Although maintaining the baseline dosing frequency is thought to reduce medication dosing errors, the manufacturer recommends splitting the dose into a bid schedule whenever the total administered dose is > 400 mcg/day, and this can be considered.
** This dose exceeds product monograph total daily dose limits intended for chronic daily use. A short term dose increase beyond these limits is unlikely to carry any significant safety risks, however formal safety testing data are not available and the decision to pursue this approach should be based on patient and clinician comfort.
*** Another possible approach would be to increase to 2 inhalations bid, and this can be considered (not shown in the table). Although this recommendation is not evidence-based, because the pharmacokinetic profile of mometasone is similar to fluticasone propionate, doubling of mometasone to 1600 mcg (twice the recommended usual maximum dose) may provide efficacy similar to fluticasone propionate 2000 mcg/day, a dose which has shown an effect comparable to oral corticosteroids.[2]
**** Ask patients to contact the health care provider to consider a prednisone prescription and/or provide a standing prescription for prednisone 30-50mg daily for 5-7 days. Ensure that patients are appropriately counseled about the risks of short-term prednisone use.

Maintenance Controller Medication in the Green Zone	Daily maintenance ICS dose in mcg	Recommended dose adjustment	Dose of ICS after adjustment	Total daily ICS dose after adjustment (mcg)	Degree of increase in ICS over baseline
Advair® pMDI Fluticasone/salmeterol					
• 125/25 mcg 1 puff bid*	250	**Add** fluticasone 125 mcg/puff pMDI 3 puffs bid	Fluticasone/salmeterol 125 mcg bid + Fluticasone 375 mcg bid	1000	4-fold
• 125/25 mcg 2 puffs bid	500	**Add** fluticasone 250 mcg/puff pMDI 3 puffs bid	Fluticasone/salmeterol 250 mcg bid + Fluticasone 750 mcg bid	2000	4-fold
• 250/25 mcg 1 puff bid*	500	**Add** fluticasone 250 mcg/puff pMDI **3** puffs bid	Fluticasone/salmeterol 250 mcg bid + Fluticasone 750 mcg bid	2000	4-fold
• 250/25 mcg 2 puffs bid	1000	**Add** fluticasone 250 mcg/puff pMDI 2 puffs bid	Fluticasone/salmeterol 500 mcg bid + Fluticasone 500 mcg bid	2000	2-fold**

*Although the manufacturer-recommended dose is 2 puffs from each available strength of Advair® pMDI in order to obtain 50 mcg of salmeterol at each dose time, **one** puff dosing regimens may be in clinical use

**Although this represents less than a 4-fold dose increase, there is evidence that a transient dose increase to a dose of 2000 mcg/day has a comparable effect to oral corticosteroids, regardless of the baseline ICS dose[2]

Maintenance Controller Medication in the Green Zone	Daily maintenance ICS dose in mcg	Recommended dose after adjustment	Dose of ICS after adjustment (mcg)	Total daily ICS dose after adjustment (mcg)	Degree of increase in ICS over baseline
Advair® Diskus® Fluticasone/salmeterol*					
• 100/50 1 inhalation bid	200	**Add** fluticasone 100 mcg/inhalation 3 inhalations bid	Fluticasone/salmeterol 100 mcg bid + Fluticasone 300 mcg bid	800	4-fold
• 250/50 1 inhalation bid	500	**Add** fluticasone 250 mcg/inhalation 3 inhalations bid	Fluticasone/salmeterol 250 mcg bid + Fluticasone 750 mcg bid	2000	4-fold
• 500/50 1 inhalation bid	1000	**Add** fluticasone 500 mcg/inhalation 1 inhalation bid	Fluticasone/salmeterol 500 mcg bid + Fluticasone 500 mcg bid	2000	2-fold**

*Note: Since each inhalation from the Advair® Diskus delivers salmeterol 50 mcg, the manufacturer's recommended dose is 1 inhalation from each available strength of Advair® Diskus in order to obtain 50 mcg of salmeterol at each dose time. Increasing the number of inhalations from Advair Diskus is not appropriate since this will exceed the daily dose limit for salmeterol.

**Although this represents less than a 4-fold dose increase, there is evidence that a transient dose increase to a dose of 2000 mcg/day has a comparable effect to oral corticosteroids, regardless of the baseline ICS dose[2]

Maintenance Controller Medication in the Green Zone	Daily maintenance ICS dose in mcg	Recommended dose after adjustment	Dose of ICS after adjustment	Total daily ICS dose after adjustment (mcg)	Degree of increase in ICS over baseline
Breo® Ellipta® Fluticasone furoate/vilanterol*					
• 100/25 1 inhalation daily	100	*Option 1:* Increase to 4 puffs od** *Option 2:* Prednisone 30-50 mg daily***	400 mcg od	400	4-fold
• 200/25 1 inhalation daily	200	*Option 1:* Increase to 4 puffs od** *Option 2:* Prednisone 30-50 mg daily***	800 mcg od	800	4-fold

*Note: Each inhalation from either strength of Breo® Ellipta® delivers vilanterol 25 mcg, which is the maximum recommended daily dose for routine usage.

** This dose exceeds product monograph total daily dose limits for fluticasone furoate and vilanterol intended for chronic daily use. A short term dose increase beyond these limits is unlikely to carry any significant safety risks, however formal safety testing data are not available and the decision to pursue this approach should be based on patient and clinician comfort. We also note that this product is relatively new on the market, and effects of higher doses are less certain than for other formulations.

*** Ask patients to contact the health care provider to consider a prednisone prescription and/or provide a standing prescription for prednisone 30-50 mg daily for 5-7 days. Ensure that patients are appropriately counseled about the risks of short-term prednisone use.

Maintenance Controller Medication in the Green Zone	Daily maintenance ICS dose in mcg	Recommended dose after adjustment	Dose of ICS after adjustment	Total daily ICS dose after adjustment (mcg)	Degree of increase in ICS over baseline
Zenhale® pMDI Mometasone/formoterol					
• 100/5 2 puffs bid*	400	*Option 1:* **Change to** Zenhale MDI 200/5 mcg 4 puffs bid** *Option 2:* Prednisone 30-50 mg daily****	200/5 mcg 4 puffs bid**	1600	4-fold
• 200/5 2 puffs bid***	800	Prednisone 30-50 mg daily****			

*Note: Since each puff from the Zenhale® pMDI delivers formoterol 5 mcg, the manufacturer's recommended dose is 2 puffs from each available strength of Zenhale® pMDI in order to obtain 10 mcg of formoterol at each dose time. Increasing the dose of 100/5 to 4 puffs bid complies with the manufacturer's maximum dose for formoterol of 40 mcg/day, but would only achieve a 2-fold increase in the ICS dose to 800 mcg. Since this strategy may be suboptimal, it may be considered, but is not listed in the table as an option.

** To achieve a 4-fold increase in mometasone to 1600 mcg/day, a higher strength inhaler is required (i.e. 200/5). This dose exceeds product monograph total daily dose limits intended for chronic daily use. A short term dose increase beyond these limits is unlikely to carry any significant safety risks, however formal safety testing data are not available and the decision to pursue this approach should be based on patient and clinician comfort.

*** Another possible approach would be to increase to 4 inhalations bid, and this can be considered (not shown in the table). Although this recommendation is not evidence-based, because the pharmacokinetic profile of mometasone is similar to

fluticasone propionate, doubling of mometasone to 1600 mcg (twice the recommended usual maximum dose) may provide efficacy similar to fluticasone propionate 2000 mcg/day, a dose which has shown an effect comparable to oral corticosteroids.[2]
**** Ask patients to contact the health care provider to consider a prednisone prescription and/or provide a standing prescription for prednisone 30-50 mg daily for 5-7 days. Ensure that patients are appropriately counseled about the risks of short-term prednisone use.

Maintenance Controller Medication in the Green Zone	Daily maintenance ICS dose in mcg	Recommended dose after adjustment	Total daily ICS dose after adjustment (mcg)	Degree of increase in ICS over baseline
Symbicort® Turbuhaler® Budesonide/formoterol*		Symbicort® Adjustable Maintenance Dosing		
• 100/6 1 inhalation daily	100	Increase to 4 inhalations/day	400	4-fold
• 100/6 1 inhalation bid	200	Increase to 4 inhalations bid	800	4-fold
• 100/6 2 inhalations daily	200	Increase to 4 inhalations bid	800	4-fold
• 100/6 2 inhalations bid***	400	**Add** budesonide 200 mcg 3 inhalations bid	1600	4-fold
• 200/6 1 inhalation daily	200	Increase to 4 inhalations/day	800	4-fold
• 200/6 1 inhalation bid	400	Increase to 4 inhalations bid	1600	4-fold
• 200/6 2 inhalations daily	400	Increase to 4 inhalations bid	1600	4-fold
• 200/6 2 inhalations bid***	800	**Add** budesonide 400 mcg 2 inhalations bid	2400	3-fold**
Symbicort® Maintenance and Reliever Therapy (SMART)****		Symbicort® Maintenance and Reliever Therapy (SMART)	Maximum:	
• 100/6 1 inhalations bid	200	In addition to the maintenance dose, may take 1 additional dose 'as needed' in response to symptoms. Not more than 6 inhalations on any single occasion. Not more than 8 inhalations per day in total (maintenance and reliever doses)	800/day	
• 100/6 2 inhalations bid	400		800/day	
• 100/6 2 inhalations daily	200		800/day	
• 200/6 1 inhalation bid	400		1600/day	
• 200/6 2 inhalations bid	800		1600/day	
• 200/6 2 inhalations daily	400		1600/day	

*Dose based on 1 inhalation from each available strength of Symbicort® Turbuhaler®.
**Although this represents less than a 4-fold dose increase, there is evidence that a transient dose increase to a dose of 2400 mcg/day has a comparable effect to oral corticosteroids, regardless of the baseline ICS dose.[2]
***Stepping up to 4 inhalations bid is a manufacturer-recommended option, but it falls short of the 4-fold increase in ICS or the 2400 mcg budesonide target dose.
****SMART dosing strategy has been shown to prevent acute exacerbations of asthma from becoming severe. There is no evidence-based recommendation for the use of supplemental budesonide with this dosing strategy. If satisfactory relief of asthma symptoms is not achieved with a maximum of 8 inhalations per day, seek medical attention.

References:

1. Lougheed MD, Lemière C, Ducharme FM, et al. Canadian Thoracic Society 2012 guideline update: Diagnosis and management of asthma in preschoolers, children and adults. Can Resp J 2012;19(2):127-164.
2. Kouri A, Boulet LP, Kaplan A, Gupta S. An evidence-based, point-of-care tool to guide completion of asthma action plans in practice. European Respiratory Journal. 2017; 49(5).

Contributed by: Lawrence Jackson, BScPhm, Pharmacist, Sunnybrook Health Sciences Centre; Samir Gupta, MD, FRCPC, MSc, Respirologist, St. Michael's Hospital
Reviewers: Provider Education Program

December 17th, 2017

Appendix G:

Sample Prescription for Valved Holding Chamber

Taddle Creek Family Health Team
Offices of Drs. Katz, Reeve & Siu; Drs. Davis, Mawji & Sugiyama
726 Bloor St. W. Suites 207 & B102
Toronto, ON M6G 4A1
Tel: 416-538-3939
Fax: 416-538-2980

July 31, 2023

Dr. Jessica Siu
726 Bloor St. W.
Suite 207
Toronto ON M6G 4A1
Tel: 416-538-3939

To Whom It May Concern:

As per verbal order from Dr. Siu, this patient requires a valved holding chamber for proper administration of their inhaled medication(s).
As authorized through TCFHT Medical Directive #12.

Kind regards,

Coverage/compassionate sources of Aerochambers as of Aug 22, 2024:

1) TCFHT has purchased a limited supply of adult aerochambers for patients in need
2) LHF no longer able to offer delivery of free aerochambers (with shipping fee $10) for individual patients – TCFHT may be able to obtain small supply directly from LHF to provide to patients in need
3) Aerochambers are covered for children aged 12 and under who are eligible for OHIP+; They can receive up to 1 aerochamber per calendar year with a prescription
4) The Non-Insured Health Benefits (NIHB) also provide coverage for 2 spacer devices every 12 months for those who are registered First Nations or recognized Inuit: blob:https://nihb-ssna.express-scripts.ca/dc5b5cb5-cbb0-4082-9b10-34cc78358ca0