Pediatric Asthma Action Plans

Developing/ Adopting an OLA Pediatric Asthma Action Plan

THE LUNG ASSOCIATION™

Ontario

Pediatric Asthma Action Plan Objectives

- To allow for a discussion and establish consensus on the need for the development/ adoption of a Pediatric Asthma Action Plan
- OLA environmental scan started
- Establish a PED Asthma Action Plan working group
- Electronic version

Emergency Department
Asthma Care Pathway (EDACP)
Paediatric: 1 to 17 years
Discharge Instructions

ADDRESSOGRAPH

PHYSICIAN: Complete and initial beside selected orders.

PHARMACIST: Label short-acting (relief) inhaler as "Take as directed as per EDACP Discharge Instructions". Fill other medications as directed by physician.

Weight: _____ kg

GREEN ZONE

Asthma under control

Breathing is good.
Run & play normally.
Cough or wheeze less than 4 times a week.

CONTROLLER Medicine:
__ (specify name) _____, ____mcg/inhalation, take ___ inhalations, ___ times per day, for 3 months, Refill **3**
___ metered dose inhaler (puffer) **OR** ___ dry powder
__ Other _____

QUICK RELIEF Medicine:
___ (specify name) _____, _____ inhalations every 4 to 6 hours as needed, 1 inhaler, Refill **1**

___ **SPACER DEVICE:** dispense ___device _____ (specify name)
___ Infant with mask __ Paediatric with mask__ Adult with mouthpiece

YELLOW ZONE

Asthma not well controlled

Signs of a cold.
Mild to moderate cough or wheezing.
Waking up because of asthma.

Continue GREEN ZONE CONTROLLER medicine.

Take QUICK RELIEF medicine every 4 hours until better.

_____

If the effect of the quick relief medication does not last 4 hours or if the child's symptoms are getting worse, see a doctor

Today, your child was seen in the Emergency Department for a significant asthma exacerbation. To treat this attack, in addition to your Controller and Quick Relief medicine, also give:
___ prednisolone liquid ___ mg daily for ___ days, Refill **0 OR** ___ prednisone tablet ___ mg daily for ___ days, Refill **0**

Additional discharge instructions: _____

RED ZONE

Asthma out of control

Very short of breath.
Severe wheezing.
"Pulling in" of skin between ribs.
Cannot do usual activities.
Severe trouble breathing, walking or talking.
Blueness of lips or skin.
Tired because of effort of breathing.

Take QUICK RELIEF medicine (blue inhaler) every 4 hours.

If you need QUICK RELIEF medicine (blue inhaler) more than every 4 hours, seek medical attention NOW.

If still in Red Zone after 15 minutes or you have not reached your doctor, call 911 or go to nearest emergency department NOW. Take QUICK RELIEF medicine (blue inhaler) as needed (even every 10 or 20 minutes if not improving) on way to hospital

Schedule appointment with: ☐ family doctor ☐ asthma educator ☐ specialist _____within _____weeks
If you have any questions about your asthma, call the **Lung Association's Asthma Helpline 1-888-344-LUNG (5864)**

Physician: _____ (print name) **License #** _____ **Signature:** _____ **Date:** _____ (dd/mm/yyyy)

ORIGINAL – PHARMACY, COPY 1– MEDICAL CHART, COPY 2 – FAMILY PHYSICIAN, COPY 3 – PATIENT

Created by the Children's Hospital of Eastern Ontario.
Adapted with permission for use in the Ontario Lung Association ED Asthma Care Pathway

CHEO Children's Hospital of Eastern Ontario
Centre hospitalier pour enfants de l'est de l'Ontario

Existing
P - EDACP asthma action plan

Children's Hospital of Eastern Ontario
Centre hospitalier pour enfants de l'est de l'Ontario

Emergency Department

ASTHMA ACTION PLAN & PRESCRIPTION

ADDRESSOGRAPH

PHYSICIAN: Initial beside selected orders.

PHARMACIST: Label salbutamol as "Take as directed as per asthma action plan". Fill other medications as directed by physician.

Weight: _____ kg

GREEN ZONE — Asthma under control

Breathing is good
Run & play normally.
Cough or wheeze less than 4 times a week.

CONTROLLER Medicine:
__ Fluticasone (Flovent®) ____mcg/puff, take ___ puffs, 2 times/day, 3 months, Refill 3
__ Ciclesonide (Alvesco®) ____mcg/puff, take ___ puffs, __times/day, 3 months, Refill 3
__ Montelukast (Singulair®) _____mg, take 1 pill at night, 30 days supply, Refill 3
__ _____

QUICK RELIEF Medicine (blue inhaler):
___ Salbutamol, 2 puffs every 4 to 6 hours as needed, 1 inhaler, Refill 3
___ Salbutamol before exercise: 2 puffs

___ **HOLDING CHAMBER:** dispense __ chamber, Refill __
___ Infant with mask __ Pediatric with mask__ Adult with mouthpiece

YELLOW ZONE — Asthma not well controlled

Signs of a cold.
Mild to moderate cough or wheezing.
Waking up because of asthma.

Continue GREEN ZONE CONTROLLER medicine.

Take QUICK RELIEF medicine (blue inhaler) every 4 hours until better.

__ _____

See a doctor if quick relief needed more than 4 days a week.

Today, your child was seen in the Emergency Department for a significant asthma exacerbation. To treat this attack, in addition to your Controller and Quick Relief medicine, also give :
___ Prednisolone liquid ___ mg daily for ___ days, Refill 0 OR ___ Prednisone tablet ___ mg daily for ___ days, Refill 0

Additional discharge instructions: _____

RED ZONE — Asthma out of control

Very short of breath.
Severe wheezing.
"Pulling in" of skin between ribs.
Cannot do usual activities.
Severe trouble breathing, walking or talking.
Blueness of lips or skin.
Tired because of effort of breathing.

Take QUICK RELIEF medicine (blue inhaler) every 4 hours.

If you need QUICK RELIEF medicine (blue inhaler) more than every 4 hours, seek medical attention NOW.

If still in Red Zone after 15 minutes or you have not reached your doctor, call 911 *or* go to nearest emergency department NOW. Take QUICK RELIEF medicine (blue inhaler) as needed (even every 10 or 20 minutes if not improving) on way to hospital

☐ Referral to Asthma Specialist ☐ Referral to Asthma Educator

☐ Schedule follow-up appointment with a doctor in _____ weeks

Physician: _____ (print name) License # _____ Signature: _____ Date: _____ (dd/mm/yyyy)

ORIGINAL – PHARMACY, COPY 1 – MEDICAL CHART, COPY 2 – PATIENT

Form No. P5574E, January 2011

Existing CHEO emergency room asthma action plan

ASTHMA QUIZ FOR KIDZ*

	YES	NO
1. Did you **cough, wheeze**, or **have a hard time breathing** 4 or more days out of the last 7 days?	☐	☐
2. Did you wake up at night because you were coughing, or wheezing, or having a hard time breathing 1 or more times in the last 7 days?	☐	☐
3. Did you use your blue puffer 4 or more times in the last 7 days?	☐	☐
4. In the last 7 days, did you do less exercise or sports because it was making you cough, wheeze, or you were having a hard time breathing?	☐	☐
5. In the last 30 days, did you miss school or regular activities because you were coughing, wheezing, or having a hard time breathing?	☐	☐
6. In the last 30 days, did you go to a clinic or a hospital without an appointment because you were coughing, wheezing, or having a hard time breathing?	☐	☐

- How many times did you answer **YES**? _____
- If you said **YES 2 OR MORE TIMES**, YOUR ASTHMA IS NOT WELL CONTROLLED. Talk to your mom and dad about seeing a doctor.

* Adapted with permission of the authors and the publisher: Ducharme FM, Davis GM, Noya F, Rich H, Ernst P. *The Asthma Quiz for Kidz*: a validated tool to appreciate the level of asthma control in children. Can Respir J, 2004; 11(8): 541-6.

TRIGGERS

Most common trigger in children is COLDS. Wash hands often. Follow the Yellow Zone at first sign of a cold.

Don't smoke! Do not allow others to smoke in your home or car. Encourage your parents to STOP smoking. Even if they smoke outside, the smoke in their clothes and hair can trigger your asthma.

Avoid fumes, chemicals, and strong scents.

Keep bathroom and basement dry. Avoid both decomposing leaves and garden waste in the spring / fall seasons.

IF ALLERGIC – Please follow the recommendations for the things your child is allergic to.

TRIGGERS

Avoid pets with fur or feathers. If you have pets, wash them regularly.

Close windows during pollen season (Spring and Fall). Air-condition your home and car. Avoid freshly cut grass.

Wash bed sheets in hot water. Vacuum and dust regularly. Cover pillows and mattresses with dust mite-resistant covers.

SELF-MANAGEMENT

1. Avoid triggers
2. Know your medication and how and when to take it. Take controller medications regularly.
3. Follow your action plan
4. After any emergency room visit, you need to schedule a follow-up appointment with a doctor in the next 2 weeks.
5. **Always have spare reliever medication (salbutamol) available**

This is the asthma quiz that is currently included on the back/as a second page to the CHEO/P - EDACP asthma action plans

ASTHMA ACTION PLAN

DISCHARGE PLAN

Addressograph

☐ *Please see your family doctor within ___ days*

☐ *Referral to Paediatric Asthma Clinic (Fax 58156):*

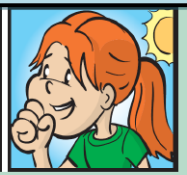
1) For all patients who have been admitted to hospital
2) Patients who don't have a family physician
3) More than 3 visits to ED in the last year

My Medications

Continue to take these medications after you go home. Once completed, start using your Green Zone medications:

1) Oral Steroids: _____for_____days
2) Controller: _____puffs___ times a day
_____puffs___ times a day
_____
3) Reliever: _____puffs every_____hrs
_____puffs every_____hrs

GREEN ZONE



My Medications

Controller: _____puffs _____ times a day
_____puffs _____ times a day
_____

Reliever: _____puffs ____ times a day

Use Reliever before exercise ☐

My Asthma is Under Control:
Breathing is good
Run & play normally
Cough or wheeze less than 4 times a week
Using reliever puffer less than 4 times per week
Not missing school because of asthma/breathing
Night time symptoms less than once per week

YELLOW ZONE

Continue to use your Green zone medications AND:

Use your reliever _____puffs every ____hours

If not improved in 3-4 days see a doctor

My Asthma is Not Well Controlled:
Signs of a cold are developing
Cough or wheezing that is bothering your child
Waking up because of asthma

RED ZONE

If you need your reliever more than every 4 hours:

GO TO YOUR NEAREST EMERGENCY DEPARTMENT NOW

Take 6 puffs of reliever medication every 10-15 minutes on the way to the hospital

Dial 911 in case of emergency

My Asthma is out of Control:
Very short of breath or severe wheezing
Difficulty breathing
"Pulling in" of skin between ribs
Cannot do usual activities
Tired because of effort of breathing

Start taking your oral steroid: _____mg once daily

This is the draft Pediatric Asthma Action Plan developed by Children's Hospital, LHSC (Dr. Dhenuka Radhakrishnan)

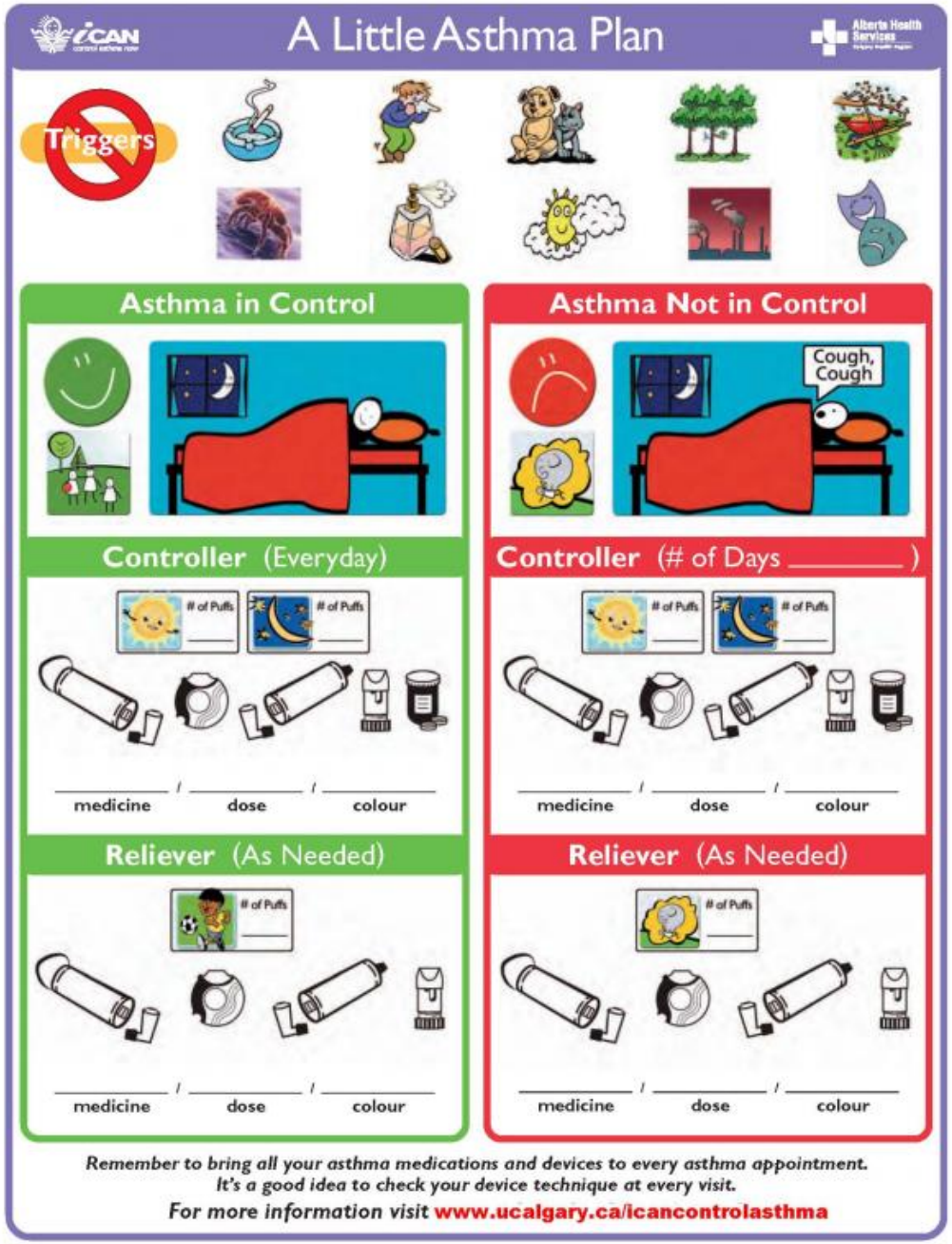
-it uses the original CHEO (and the OLA P - EDACP) action plans as the basis.

What is your asthma control zone?

For each item below think about the statement that most closely reflects what you are currently experiencing.

Step 1	What to Look for	CONTROLLED ASTHMA	UNCONTROLLED ASTHMA	DANGEROUSLY UNCONTROLLED ASTHMA
	Physical activity	Normal	Some interruption with activities	Difficulty talking
	*Reliever use	Less than 4 times / week	4 or more times / week	Reliever inhaler doesn't work as usual *OR* Relief lasts less than 2 hours
	Day time symptoms: may include: cough, difficulty breathing, wheeze	Less than 4 days / week	4 or more days / week	All the time
	Night time symptoms: may include: cough, difficulty breathing, wheeze	Less than 1 night / week	1 or more nights / week	Every night
	Peak Flow Rates (optional)	Greater than	Between and	Less than
Step 2	What is my level of asthma control?	If all checks are in the green column, your asthma is under control (Green Zone).	If you have any checks in the yellow column and zero checks in the red column, your asthma is uncontrolled and in the Yellow Zone.	If you have any checks in the red column, your asthma is *dangerously uncontrolled* (Red Alert Zone).
Step 3	Steps to Take	Follow your current plan.	Make an appointment to see your doctor Follow the steps below: • Continue this treatment for days. • If asthma is not improving within days see your doctor.	Seek Immediate Medical Assistance • Go to your nearest emergency room • Call 911 • Take your reliever inhaler as necessary. May take every 10 - 20 minutes on way to the hospital or as reccomended by your doctor.

Ontario Lung Association Asthma Action Plan



Alberta asthma action plan (translated to different languages)

MY ASTHMA ACTION PLAN

Billy
2 years old

Space for child identification

Peak Flow ↓

The most common trigger in children is COLDS. You should avoid cigarette smoke and may need to avoid dust, mold, cats, dogs, or cold air.

Comments: _____

Physician's Signature _____ Date _____ Reviewed by _____ Date _____

100% (Personal Best)

GREEN ZONE: Doing well
- Breathing is good
- Cough or wheeze is only occasional (less than 4 times a week)
- Can run and play normally

☐ Controller Medication(s): ☐ _____ , ___ puff(s), _____ time(s) a day
☐ _____ , ___ puff(s), _____ time(s) a day
☐ _____ , ____ dose, _____ time(s) a day

☐ Quick Relief Medication(s): ☐ _____ , ___ puff(s), less than 4 times a week
☐ Before exercise: _____ , ____ puff(s)

80%

YELLOW ZONE: Caution
- Signs of a cold
- Cough or wheezing
- Tight chest
- Waking up at night because of asthma

☐ Continue with GREEN ZONE medications.
☐ Increase _____ (controller) to ____ puff(s), ____ times a day, for ____ day(s)
☐ Take _____ (quick relief) , ____ puff(s) every 4-6 hours until better
☐ Other: _____

70%

RED ZONE: Medical Alert
- Very short of breath
- "Pulling in" of skin between ribs
- Cannot do usual activities
- Quick relief medication not helping or helping for less than 4 hours

Take _____ (quick relief) , ____ puff(s) every 4 hours
Seek medical attention NOW and follow EMERGENCY plan if:
- You are still in red zone after 15 minutes OR
- You have not reached your doctor

50%

EMERGENCY:
- Severe trouble breathing, walking, or talking
- Blueness of lips or skin
- Tired because of the effort of breathing

GO TO THE NEAREST EMERGENCY DEPARTMENT NOW
Take your quick relief medication as necessary (even every 10-20 minutes if you are not improving) on your way to the hospital.
In Ottawa, you can call **911** in case of emergency.

Form 5012E (9239) – Revised Dec 2001 Original – Patient Copy - Chart

Asthma Action Plan

Action plan of: _____ Date: _____

Personal goals: _____

Possible Triggers (circle): smoke, colds, animals, pollens, mold, dust, strong smells, weather changes, strong emotions

Other _____ Exercise _____

Asthma under control?

	Yes Normal life, regular activities	No Cough, wheeze, short of breath, tight chest, colds, allergies	Not at all Very short of breath, trouble speaking, blue/grey lips / fingernails
1. Daytime symptoms	3 times or less/week	More than 3 times/week	Continuous & worsening
2. Nighttime symptoms	None	Some nights	Continuous & worsening
3. Reliever	3 times or less/week	More than 3 times/week	Relief less than 3-4 hours
4. Physical activity	Normal	Limited	Very limited
5. Able to go to school or work	Yes	Maybe	No
6. Peak expiratory flow Best value (optional): _____	85 to 100 % _____ to _____	60 to 85 % _____ to _____	Less than 60 % Less than _____

What to do:

	Stay controlled & avoid triggers	Adjust (controllers / reliever)	Call for help
Preventer/Controller: Use DAILY to control airway swelling & other symptoms. Rinse mouth after each use. 1 _____ (name / strength) _____ (colour)	Take _____ (amount) ☐AM ☐PM	Take _____ (amount) ☐AM ☐PM	EMERGENCY 911 Take all asthma medications at the highest dose recommended by your doctor until help arrives. (This may include prednisone)
2 _____ (name / strength) _____ (colour)	Take _____ (amount) ☐AM ☐PM	Take _____ (amount) ☐AM ☐PM	
Reliever/Rescue: Quickly relieves symptoms by relaxing muscles around airways. 1 _____ (name / strength) _____ (colour)	Take _____ (# of puffs) as needed Before exercise? ☐Yes ☐No	Take _____ (# of puffs) as needed If no improvement in _____ days, call your doctor.	

Clinician: _____ Health Link Alberta: _____

www.educationforasthma.com www.canahome.org

Education for asthma.com