

Louisiana Asthma Management Prevention Program 2012-2013

Health Care Provider Toolkit



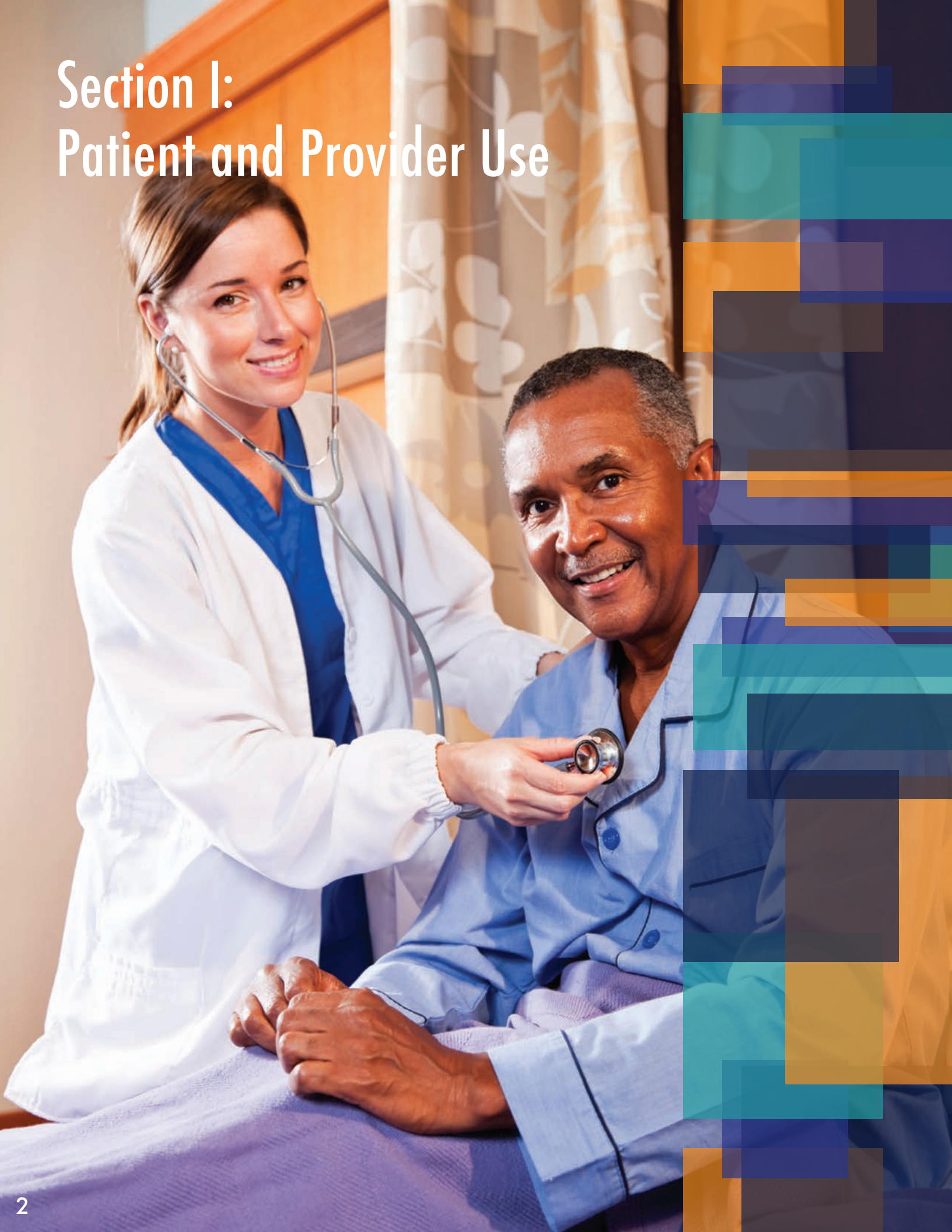


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Table of Contents

Section I-Patient & Provider Use (Assessing Patient Control and Management)	2
Louisiana Asthma Action Plan	3
Louisiana Medication Order and Authorization for Medication Use	4
Peak Expiratory Flow Rate Chart	5
Asthma Patient Questionnaire	6
Environmental History Form for Pediatric Asthma Patient	7
Take the Asthma Control Test (ACT) Patients >12 years age	8
Childhood Asthma Control Test Patients (4 to 11) years age	9
Test for Respiratory and Asthma Control in Kids	10-11
Section II-Patient Use (Patient Education)	12
About Asthma	13
What Happens During An Asthma Attack?	14
Taking Control of Your Asthma	15
How to Use Medications/Devices*	
Spray Inhaler with a Tube Type Spacer or Holding Chamber	16
Using a Spacer with Facemask	17
Dry Powder Inhaler: Twisthaler	18
Dry Powder Inhaler: Flexhaler	19
Spray Inhaler	20
Nebulizer	21-22
Diskus Dry Powder Inhaler (DPI)	23
Peak Flow Meter	24
*Adopted from American Lung Association of Maine and the Maine Health Asthma Health Program	
Section III-For the Healthcare Professional (Patient Diagnosis)	25
Asthma Quality of Care Measure-Outpatients	26
Asthma Quality of Care Measures-Inpatient or ED Patients	27
Summary of NAEPP's EPR-3	28-31
Estimated Comparative Daily Dosages for Inhaled Corticosteroids	32-34
Asthma and Tobacco Use	35
Louisiana Tobacco-Free Healthcare Facilities Fact Sheet	36
F.L.A.R.E Asthma Discharge Protocol	37
Special Acknowledgments	38

Section I: Patient and Provider Use



Asthma Action Plan

Patient: _____ DOB: _____ Date: _____

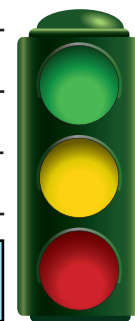
The colors of the traffic light will help you use your asthma medicine.

Emergency Contact: _____ Phone: _____

Healthcare Provider: _____

Providers Phone (Day/Night): _____ / _____

Patient Signature: _____ Parent Signature: _____



GREEN means **Go Zone!** Use controller medicine.

YELLOW means **Caution Zone!** Add quick-relief medicine.

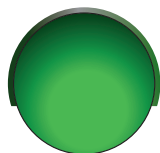
RED means **Danger Zone!** Get help from a doctor.

For Exercise: 20 minutes before take: 2 puffs Albuterol (ProAir, Proventil, Ventolin)
 4 puffs Levalbuterol (Xopenex)

GREEN = Go Zone

Use **CONTROLLER** Medications **EVERY DAY** and Avoid Asthma Triggers

You have **ALL** of these:



- Breathing is good
- No cough or wheeze
- Can work and play
- Sleep through the night

Controller Medication	How Much to Take	How Often
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

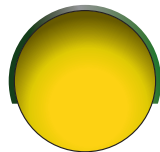
Rinse mouth or brush teeth after using **Controller Medication**

If peak flow meter used: Peak flow greater than _____ above 80% personal best. Personal best for peak flow = _____

YELLOW = CAUTION ZONE

Getting Worse! Add **QUICK RELIEVER** Medication

You have **ANY** of these:



- Cough
- Mild wheeze
- Tight chest
- Waking at night due to asthma
- First sign of cold
- Can do some, but not all, usual activities
- Exposure to a known trigger

Continue **DAILY** Green Zone Controller Medications and **ADD QUICK RELIEVER**:

Albuterol (ProAir, Proventil, Ventolin) Levalbuterol (Xopenex)
 2 puffs 4 puffs 1 nebulizer treatment

If better in 20 minutes, continue Quick-Reliever every 4-6 hours for 1-2 days and:

Change controller: _____ for _____ days

If not improving:

Take oral steroid: _____ for _____ days
 Call your provider at 24 hours 48 hours

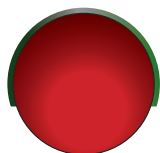
This is not where you should be everyday. Take action to get your asthma under control.

If peak flow meter used: _____ to _____ (50% to 80% of personal best)

RED = DANGER ZONE

Take these medicines and **GET HELP NOW**

Your asthma is bad:



- Medicine is not helping within 10-20 minutes
- Breathing is hard and fast
- Nose opens wide
- Ribs show
- Trouble walking
- Trouble talking

Use **QUICK RELIEVER**

2 puffs 4 puffs 6 puffs 1 nebulizer treatment

If not better in 20 minutes, repeat quick reliever while going to the hospital or provider's office - dial 911 if necessary.

My Asthma Triggers:				
<input type="checkbox"/> Exercise	<input type="checkbox"/> Dust	<input type="checkbox"/> Air Pollution	<input type="checkbox"/> Animals	<input type="checkbox"/> Mold
<input type="checkbox"/> Colds	<input type="checkbox"/> Smoke	<input type="checkbox"/> Tree Pollen	<input type="checkbox"/> Other _____	<input type="checkbox"/> Cockroach Particles
<input type="checkbox"/> Weather	<input type="checkbox"/> Food	<input type="checkbox"/> Grass	<input type="checkbox"/> Fragrances	

If peak flow meter used: Peak flow below _____ (below 50% of personal best)

STATE OF LOUISIANA

MEDICATION ORDER

TO BE COMPLETED BY LA, TX, AR, OR MS LICENSED PRESCRIBER

(In most instances, medications will be administered by unlicensed personnel.)

PART 1: PARENT OR LEGAL GUARDIAN TO COMPLETE.

Student's Name _____ Birthdate _____

School _____ Grade _____

Parent or Legal Guardian Name (print): _____

Parent or Legal Guardian Signature: _____ Date: _____

(Please note: A parental/legal guardian consent form must also be filled out. Obtain from the school nurse.)

PART 2: LICENSED PRESCRIBER TO COMPLETE.

1. Relevant Diagnosis(es): _____
2. Student's General Health Status: _____
3. Medication: _____
4. Strength of medication: _____ Dosage (amount to be given): _____
Check Route: By mouth By inhalation Other _____
Frequency _____ Time of each dose _____

School medication orders shall be limited to medication that cannot be administered before or after school hours. Special circumstances must be approved by school nurse.

5. Duration of medication order: Until end of school term Other _____
6. Desired Effect: _____
7. Possible side-effects of medication: _____
8. Any contraindications for administering medication: _____
9. Other medications being taken by student when not at school:

10. Next visit is: _____

Prescriber's Name (Printed) _____ Address _____ Phone and Fax Numbers _____

Prescriber's Signature _____ Credential (i.e., MD, NP, DDS) _____ Date _____

Each medication order must be written on a separate order form. Any future changes in directions for medication ordered require new medications orders. Orders sent by fax are acceptable. Legibility may require mailing original to the school. Orders to discontinue also must be written.

PART 3: LICENSED PRESCRIBER TO COMPLETE AS APPROPRIATE.**Inhalants / Emergency Drugs****Release Form for Students to be Allowed to Carry Medication on His/Her Person**

Use this space only for students who will self-administer medication such as asthma inhaler.

1. Is the student a candidate for self-administration training? Yes No
2. Has this student been adequately instructed by you or your staff and demonstrated competence in self-administration of medication to the degree that he/she may self-administer his/her medication at school, provided that the school nurse has determined it is safe and appropriate for this student in his/her particular school setting? Yes No
3. If training has not occurred, may the school nurse conduct a training program? Yes No

Licensed Provider's Signature _____ Date _____

PEFR Chart for Asthma Action Plan

Peak Expiratory Flow Rate: Zone ranges rounded to the nearest five liters per minute.

Height in Inches or Feet	Height in Centimeters	Predicted or Personal Best	Green Zone (80-100%)	Yellow Zone (50-80%)	Red Zone (<50%)
		100	80 to 100	50 to 80	Below 50
		120	100 to 120	60 to 100	Below 60
39" or 3'3"	100	140	110 to 140	70 to 110	Below 70
41" or 3'5"	105	160	130 to 160	80 to 130	Below 80
43" or 3'7"	110	180	145 to 180	90 to 145	Below 90
45" or 3'9"	115	200	160 to 200	100 to 160	Below 100
47" or 3'11"	120	220	175 to 220	110 to 175	Below 110
49" or 4'1"	125	240	190 to 240	120 to 190	Below 120
51" or 4'3"	130	260	210 to 260	130 to 210	Below 130
53" or 4'5"	135	280	225 to 280	140 to 225	Below 140
55" or 4'7"	140	300	240 to 300	150 to 240	Below 150
56" or 4'8"		320	255 to 320	160 to 255	Below 160
57" or 4'9"	145	330	265 to 330	165 to 260	Below 165
58" or 4'10"		340	270 to 340	170 to 270	Below 170
59" or 4'11"	150	360	290 to 360	180 to 290	Below 180
60" or 5'		380	300 to 380	190 to 300	Below 190
61 or 5'1"	155	390	310 to 390	195 to 310	Below 195
62 or 5'2"		400	320 to 400	200 to 320	Below 200
63 or 5'3"	160	420	335 to 420	210 to 335	Below 210
64 or 5'4"		440	350 to 440	220 to 350	Below 220
65 or 5'5"	165	450	360 to 450	225 to 360	Below 225
66 or 5'6"		460	370 to 460	230 to 370	Below 230
67 or 5'7"	170	480	385 to 480	240 to 385	Below 240
68 or 5'8"		500	400 to 500	250 to 400	Below 250
69 or 5'9"	175	520	415 to 520	260 to 415	Below 260
70 or 5'10"		540	430 to 540	270 to 430	Below 270
71 or 5'11"	180	560	450 to 560	280 to 450	Below 280

Asthma Questionnaire

Directions: Caregivers, please answer the Asthma Questionnaire and provide to your doctor at each doctor's visit.

Hospital/Emergency Room

- Have you/your child ever been to an emergency room for Asthma? Yes No
- Have you/your child been to an emergency room for asthma in the past six months? Yes No
- Have you/your child ever spent the night in a hospital because of asthma? Yes No
- Have you/your child spent the night in a hospital because of asthma in the past year? Yes No
- Have you/your child ever been in an Intensive Care Unit for asthma? Yes No
- Have you/your child ever needed a breathing tube (been intubated) because of asthma? Yes No

Medications

- Have you/your child taken steroids by mouth (Prednisone, Orapred, Medrol) for asthma? Yes No
- Have you/your child taken steroids by mouth in the past year? Yes No
- Have you/your child taken steroids by mouth in the past six months? Yes No
- Have you/your child taken steroids by mouth two times or more in the past year? Yes No

Tobacco Use

- Do you smoke? Yes No
- Does anyone in your home smoke? Yes No
- Is there anywhere else you/your child are often around people who are smoking? Yes No

Preventive Measures

- Did you/your child get the regular flu vaccine this year? Yes No
- Do you/your child have a written Asthma Action Plan? Yes No

Triggers

Please check anything that is a trigger for you/ your child's asthma or allergies:

- | | | | | |
|-----------------------------------|--------------------------------|--|--------------------------------------|--|
| <input type="checkbox"/> Animals | <input type="checkbox"/> Food | <input type="checkbox"/> Weather | <input type="checkbox"/> Grass | <input type="checkbox"/> Cockroach Particles |
| <input type="checkbox"/> Exercise | <input type="checkbox"/> Dust | <input type="checkbox"/> Air Pollution | <input type="checkbox"/> Mold | <input type="checkbox"/> Fragrances |
| <input type="checkbox"/> Colds | <input type="checkbox"/> Smoke | <input type="checkbox"/> Tree Pollen | <input type="checkbox"/> Other _____ | |

Environmental History for Pediatric Asthma Patient

Specify that questions related to the child's home also apply to other indoor environments where the child spends time, including school, daycare, car, school bus, work and recreational facilities.

- Is your child's asthma worse at night? Yes No Not sure
- Is your child's asthma worse at specific locations?
If so, where? _____ Yes No Not sure
- Is your child's asthma worse during a particular season?
If so, which one? _____ Yes No Not sure
- Is your child's asthma worse with a particular change in climate?
If so, which? _____ Yes No Not sure
- Can you identify any specific trigger(s) that makes your child's asthma worse?
If so, what? _____ Yes No Not sure
- Have you noticed whether dust exposure makes your child's asthma worse? Yes No Not sure
- Does your child sleep with stuffed animals? Yes No Not sure
- Is there wall-to-wall carpet in your child's bedroom? Yes No Not sure
- Have you used any means for dust mite control?
If so, which ones? _____ Yes No Not sure
- Do you have any furry pets? Yes No Not sure
- Do you see evidence of rats or mice in your home weekly? Yes No Not sure
- Do you see cockroaches in your home daily? Yes No Not sure
- Do any family members, caregivers or friends smoke? Yes No Not sure
- Does this person(s) have an interest or desire to quit? Yes No Not sure
- Does your child/teenager smoke? Yes No Not sure
- Do you see or smell mold/mildew in your home? Yes No Not sure
- Is there evidence of water damage in your home? Yes No Not sure
- Do you use a humidifier or swamp cooler? Yes No Not sure
- Have you had new carpets, paint, floor refinishing, or other changes at your house in the past year? Yes No Not sure
- Does your child or another family member have a hobby that uses materials that are toxic or give off fumes? Yes No Not sure
- Has outdoor air pollution ever made your child's asthma worse? Yes No Not sure
- Does your child limit outdoor activities during a Code Orange or Code Red air quality alert for ozone or particle pollution? Yes No Not sure
- Do you use a wood burning fireplace or stove? Yes No Not sure
- Do you use unvented appliances such as a gas stove for heating your home? Yes No Not sure
- Does your child have contact with other irritants?
(e.g., perfumes, cleaning agents, or sprays) Yes No Not sure

Take the Asthma Action Control Test (ACT)

For Patients 12 Years and Older. Know your score. Share results with your doctor.

Step 1: Write the number of each answer in the score box provided.

Step 2: Add up the score boxes for your total.

Step 3: Take the test to the doctor to talk about your score.

1. In the past four weeks , how much of the time did your asthma keep you from getting as much done at work, school or home?					Score
All of the time 1	Most of the time 2	Some of the time 3	A little of the time 4	None of the time 5	<input type="radio"/>
2. During the past four weeks , how often have you had shortness of breath?					<input type="radio"/>
More than once a day 1	Once a day 2	3 - 6 times a week 3	Once or twice a week 4	Not at all 5	<input type="radio"/>
3. During the past four weeks , how often did your asthma symptoms (wheezing, coughing, shorness of breath, chest tightness or pain) wake you up at night or earlier than usual in the morning?					<input type="radio"/>
4 or more nights a week 1	2 or 3 nights a week 2	Once a week 3	Once or twice 4	Not at all 5	<input type="radio"/>
4. During the past four weeks , how often have you used your rescue inhaler or nebulizer medication (such as albuterol)?					<input type="radio"/>
3 or more times per day 1	1 or 2 times per day 2	2 or 3 times per week 3	Once a week or less 4	Not at all 5	<input type="radio"/>
5. How would you rate your asthma during the past four weeks ?					<input type="radio"/>
Not controlled at all 1	Poorly controlled 2	Somewhat controlled 3	Well controlled 4	Completely controlled 5	<input type="radio"/>
					Total
					<input type="radio"/>

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Asthma Control Test is a Trademark of QualityMetric Incorporated

If your score is 19 or less, your asthma may not be controlled as well as it could be. Talk to your doctor.

FOR PHYSICIANS: The ACT is:

- A simple 5-question tool that is self administered by the patient
- Recognised by the National Institutes of Health
- Clinically validated by specialist assesment and spirometry¹

Reference 1. Nathan RA et al. J Allergy Clin Immunol. 2004; 113:59-65

Childhood Asthma Action Control Test

For Children 4 to 11 Years Old.

Step 1: Let your child respond to the first **four questions (1 to 4)**. If your child needs help reading and/or understanding the questions, you may help, but let your child select the response. Complete the remaining **three questions (5 to 7)** on your own and without letting your child's responses influence your answers.

Step 2: Write the number of each answer in the score box provided.

Step 3: Add up the score boxes for your total.

Step 4: Take the test to the doctor to talk about your child's total score.

						Score		
1. How is your asthma today?								
Very Bad.		Bad.		Good.			Very Good.	
0	1	2	3					
2. How much of a problem is your asthma when you run, exercise or play sports?								
A big problem, I can't do what I want to do.		It's a problem and I don't like it.		It's a little problem but it's okay.			It's not a problem.	
0	1	2	3					
3. Do you cough because of your asthma?								
Yes, all of the time.		Yes, most of the time.		Yes, some of the time.		No, none of the time.		
0	1	2	3					
4. Do you wake up during the night because of your asthma?								
Yes, all of the time.		Yes, most of the time.		Yes, some of the time.		No, none of the time.		
0	1	2	3					
5. In the last four weeks, how many days did your child have daytime asthma symptoms?								
5	4	3	2	1	0			
Not at all	1-3 days	4-10 days	11-18 days	19-24 days	everyday			
6. In the last four weeks, how many days did your child wheeze during the day due to asthma?								
5	4	3	2	1	0			
Not at all	1-3 days	4-10 days	11-18 days	19-24 days	everyday			
7. In the last four weeks, how many days did your child wake up at night because of asthma?								
5	4	3	2	1	0			
Not at all	1-3 days	4-10 days	11-18 days	19-24 days	everyday			
						Total		

If your child's score is **19 or less**, it may be a sign that your child's asthma is not controlled as well as it could be. Bring this test to a doctor to talk about the results.

Test for Respiratory and Asthma Control in Kids (TRACK)

For Kids Under 5 Years of Age

What is TRACK?

TRACK is a simple five-question test that can help assess respiratory and asthma control in patients between the age of 12 months and five years. It addresses both the risk and impairment domains outlined in the NHLBI/NAEPP-3 Asthma Guidelines. TRACK is designed to be used by caregivers and interpreted by medical professionals.

Who Should use TRACK?

- The simple test can help determine if your child's breathing problems are not under control. The test was designed for children who
- Are younger than five years of age AND
- Have a history of two or more episodes of wheezing, shortness of breath, or cough lasting more than 24 hours AND
- Have been previously prescribed bronchodilator medicine, also known as quick-relief medications (eg. Albuterol, Ventolin, Proventil, Maxair, ProAir, or Xopenex) for respiratory or asthma control, this is NOT a diagnostic test.

How to Take TRACK

Step 1: Write the number of your answer in the score box provided to the right of each question.

Step 2: Add up the numbers in the individual score boxes to obtain your child's total score.

Step 3: Take the test to your child's health care provider to talk about your child's total TRACK score.

Test for Respiratory and Asthma Control in Kids (TRACK)

1. During the **past four weeks**, how often was your child bothered by breathing problems, such as wheezing, coughing or shortness of breath?

20 15 10 5 0
 Not at all Once or twice Once every week 2-3 times a week 4+ times a week

2. During the **past four weeks**, how often did your child's breathing problems, (wheezing, coughing, shortness of breath) wake him or her up at night?

20 15 10 5 0
 Not at all Once or twice Once every week 2-3 times a week 4+ times a week

3. During the **past four weeks**, to what extent did your child's breathing problems, such as wheezing, coughing, or shortness of breath interfere with his or her ability to play, go to school or engage in usual activities that a child should be doing at his or her age?

20 15 10 5 0
 Not at all Slightly Moderately Quite a Lot Extremely

4. During the **past three months**, how often did you need to treat your child's breathing problems (wheezing, coughing, shortness of breath) with quick-relief medications (albuterol, Ventolin[®], Proventil[®], Maxair[®], ProAir[®], Xopenex[®] or Primatene Mist[®])?

20 15 10 5 0
 Not at all Once or twice Once every week 2-3 times a week 4+ times a week

5. During the **past 12 months**, how often did your child need to take oral corticosteroids (prednisone, prednisolone, Orapred[®], Prelone[®] or Decadron[®]) for breathing problems not controlled by other medications?

20 15 10 5 0
 Never Once Twice 3 times 4+ times

Score

○

○

○

○

○

○

○

○

Total

Section II: Patient Use



About Asthma

Asthma is a serious chronic lung disease and cannot be cured. However, by taking medicine and making changes to your environment it can be controlled. The basic cause of asthma is not yet known, but it tends to run in families. It is common in children or adults with allergies and if not treated correctly, can result in death. Currently, 12 percent of children in Louisiana have asthma, and it is the top reason children miss school.

What Causes Asthma Episodes?

Triggers such as allergies, colds, tobacco smoke or exercise can cause asthma episodes. Eighty percent of people who have asthma have allergies to airborne substances such as:

- Tree Pollen
- Grass
- Weeds
- Mold
- Animal dander
- Dust mites
- Cockroach particles
- Tobacco smoke

The Main Signs and Symptoms of Asthma Are:

Asthma episodes rarely come on suddenly. Often, there are clues or early warning signs that an episode may occur. Some early warning signs may be runny nose, coughing, shortness of breath, inability to sleep at night, inability to exercise, prolonged respiratory infections or decrease of lung capacity. The Main Signs and Symptoms of asthma are:

- Coughing
- Shortness of breath
- Wheezing
- Tightness of chest
- Waking up at night with symptoms
- Coughing with exercise
- Coughing more than two weeks or wheezing after viral infections

What Happens During an Asthma Attack?

During an Asthma Episode, a Person has Difficulty Breathing Because:

- The lining of the airways become swollen
- The muscles around the airways tighten, making the airways smaller
- Thick mucus forms, blocking small airways

Warning Signs of an Asthma Attack

- Breathing very quickly
- Becoming hunched over
- Severe wheezing
- Nostrils open wider with each breath
- Hard time walking, talking or eating
- The skin between the ribs is pulled tight
- Lips, skin or fingernails are blue
- Quick relief medicine is not working after 20 minutes

How to Avoid an Asthma Attack

- Refer to your asthma action plan, developed by your doctor
- Take quick relief medications as needed or prescribed by your doctor
- Asthma episodes may be prevented by avoiding asthma triggers and taking a controller medicine, if prescribed by your doctor
- If your child's asthma action plan includes a daily controller medicine, be sure to take it every day, even when your child doesn't feel sick.

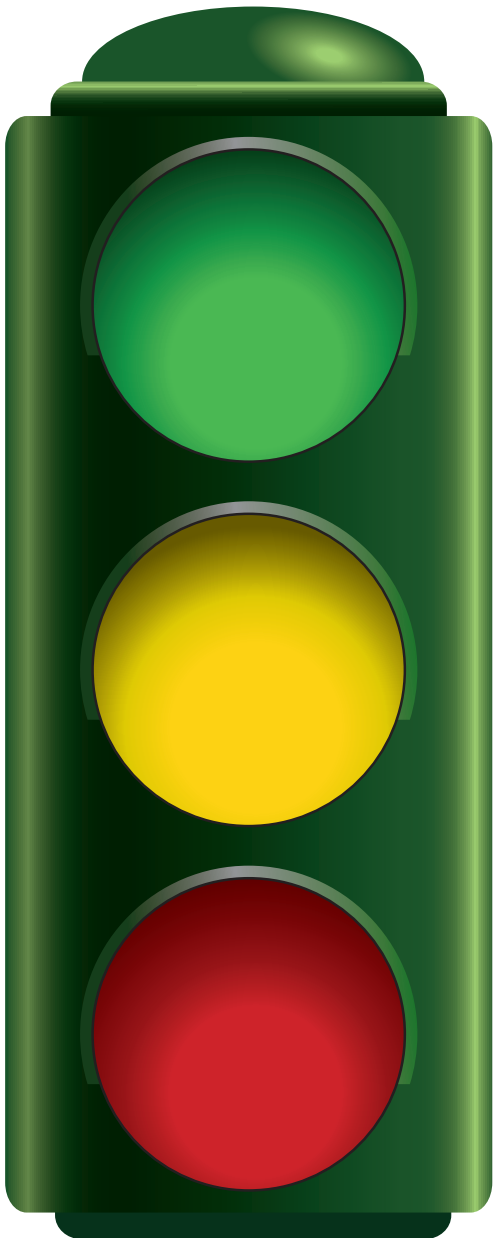
Taking Control of Your Asthma

Good asthma control means the child is able to:

- Play and exercise when the child wants
- Sleep through the night without coughing or wheezing
- Avoid urgent visits to the doctors and no hospitalization because of asthma

The Asthma Action Plan - What Does It Mean?

How the parent, physician and teacher can monitor your child's asthma.



GREEN Asthma Zone:

Child is Under Control

This zone means the child has no signs of asthma, which includes no coughing, no wheezing, no fast breathing and the child is playing with no problems.

YELLOW Asthma Zone:

Follow Treatment in Asthma Action Plan

This zone means the child is having signs such as coughing, wheezing, cold symptoms or coughing at night.

RED Asthma Zone:

SEEK EMERGENCY HELP!

This zone means medicine has not helped within 10-20 minutes, and the child is experiencing fast breathing, trouble walking and talking, lips and/or fingernails blue.

How to Use Asthma Medications & Devices

Spray Inhaler with a Tube Type Spacer or Holding Chamber



Step 1

Take off cap and
Make sure opening is clean.
Shake inhaler five seconds.



Step 5

Start to take a slow deep
breath. If you hear a
whistle, breathe slower, but
keep taking a deep breath.
Do not breathe through
your nose.



Step 2

Put inhaler into spacer.



Step 6

Take the spacer out of your
mouth and hold your breath.
Count to 10 slowly.



Step 3

Breathe out all the air in
your lungs.



Step 7

Breathe out slowly,
like cooling soup on
a spoon.



Step 4

Put spacer in your mouth
and close lips tightly around
the mouthpiece. Spray one
puff of medicine into
the spacer.

Best to use inhalers with a spacer.

More medicine will get into the lungs and less will get on your tongue and throat.

Use more than one puff of medicine? Wait at least 30 seconds between puffs.

How to Use Asthma Medications & Devices

Using a Spacer with a Facemask



Step 1

Take off inhaler cap and make sure opening is clean. Shake inhaler five seconds.



Step 2

Put inhaler into open end of spacer.



Step 3

Put mask over the nose AND mouth. Press against the face gently so no air or medicine escapes.



Step 4

Spray one puff of medicine and hold the mask in place.



Step 5

Breathe in and out six times.

Best to use inhalers with a spacer.

More medicine will get into the lungs and less will get on your tongue and throat.

Use more than one puff of medicine? Wait at least 30 seconds between puffs.

How to Use Asthma Medications & Devices

Dry Powder Inhaler (DPI): Twishaler



Step 1

Open Inhaler: Hold inhaler straight up with pink base on bottom.



Step 2

Inhale Dose: Hold base and twist white cap to the left. The dose counter counts down by one as you twist off the white cap.



Step 3

Turn head and breathe out.



Step 4

Close lips tight around the mouthpiece and take a deep, fast breath. Hold the inhaler horizontal.



Step 5

Take inhaler out of your mouth and hold breath for 10 seconds. Replace the cap on the inhaler and twist to the right until it clicks. It must be fully closed to load the next dose. Be sure the arrow on the cap is lined up with the dose counter on pink base.

Repeat each step everytime you take a dose.

How to Use Asthma Medications & Devices

Dry Powder Inhaler (DPI): Flexhaler

First time use: Prime inhaler two times. Do the loading steps 1, 2 and 3 below.

Load the Dose



Step 1

Hold straight up and twist off white cap.



Step 2

Twist brown base to the right.



Step 3

Twist brown base to the left until you hear a click.

Inhale the Dose



Step 1

Turn face away and breathe out. Do not blow into the inhaler.



Step 2

Put your lips around the mouthpiece. Breathe in deeply and forcefully. Hold inhaler straight up or sideways. Do not tip or you will lose dose.



Step 3

Hold your breath a few seconds. Blow out gently.



Inhaler is empty when the number "0" shows in the middle of the red background. Rinse mouth after use.

How to Use Asthma Medications & Devices

It is best to use inhalers with a spacer. More medicine will get into the lungs and less will get on your tongue and throat. If you don't use a spacer, here are two ways to use your inhaler.



Spray Inhaler with Open Mouth

1. Take off cap and make sure opening is clean. Shake five seconds.
2. Breathe out all the air in your lungs.
3. Hold the inhaler two finger widths away.
4. As you start to breathe in through your mouth, push down on the top of the inhaler and keep taking a slow, deep breath.
5. Hold breath for 10 seconds.
6. Breathe slowly through pursed lips (like cooling soup on a spoon).

Spray Inhaler in Mouth

1. Take off cap and make sure opening is clean. Shake five seconds.
2. Breathe out all the air in your lungs.
3. Put inhaler in your mouth and close lips tightly around the opening of the inhaler.
4. As you start to breathe in through your mouth, push down on the top of the inhaler and keep taking a slow deep breath.
5. Hold breath for 10 seconds.
6. Breathe slowly through pursed lips (like cooling soup on a spoon).

Use more than one puff of medicine? Wait at least 30 seconds between puffs.

How to Use Asthma Medications & Devices

Nebulizer Medicine



Getting Ready



Step 1

Put the nebulizer compressor (machine) on a hard surface and plug machine into outlet.



Step 5

Put mouthpiece onto nebulizer with valve facing down (outlet away from eyes).



Step 2

Unscrew top of nebulizer.



Step 6

Press the tubing firmly to the bottom of the nebulizer.



Step 3

Put a dose of medicine in the nebulizer cup.



Step 7

Attach opposite end of tubing to machine's outlet port.



Step 4

Put top of nebulizer back on and turn until tight.

How to Use Asthma Medications & Devices

Nebulizer Medicine

Using the Nebulizer



Step 8

Turn compressor (machine) on.



Step 11

Use a mask if you cannot breathe through your mouth. Blowing medicine in the face is not a good way to get medicine into the lungs.



Step 9

Look at mouthpiece to see if there is a steady mist.



Step 12

After medicine is gone, turn compressor off.



Step 10

Put mouthpiece between teeth and top of tongue. Breathe in through mouth.



Step 13

Clean nebulizer parts with hot soapy water, or vinegar and hot water.

Tips: Do not wash tubing. Change when it looks wet or dirty. Change filter on machine when it turns gray or looks dirty. Rinse mouth after using inhaled steroid in nebulizer.

How to Use Asthma Medications & Devices

Dry Powder Inhaler (DPI): Diskus



Getting Ready



Step 1

Open: Keep diskus level in one hand. Put thumb of your other hand on grip and push away until the mouthpiece appears and snaps into place.



Step 4

Inhale: Put the mouthpiece between your lips. Breathe in quickly and deeply through the diskus. Hold your breath for 10 seconds.



Step 2

Click: Slide lever away from you as far as it will go until you hear or feel a “click”. Hold the diskus level and do not tip, or you will lose the dose.



Step 5

Close the diskus, then blow out gently.



Step 3

Breathe Out: Turn face away and breathe out. Do not blow into the diskus.



Step 6

Rinse mouth with water, gargle and spit. Do not swallow.

Take only one breath each time.

The counter on the side shows how many doses are left: One month = 60 doses. 14 days = 28 doses

How to Use Asthma Medications & Devices

Peak Flow Meter

Get Ready: Get a pencil and your peak flow chart.



Step 1

Slide the marker down as far as it will go. This sets the meter to zero.



Step 5

Write down the number.



Step 2

Stand up and take a deep breath with your mouth open. Hold the meter. Keep your fingers away from the numbers.



Step 6

Blow two more times. Slide the marker down each time. Write the number down each time.



Step 3

Close your lips around the tube. Do not put your tongue in the hole. Blow one time as fast and hard as you can.



Step 7

Keep the highest number on a chart. Do this for one to two weeks. Show your doctor, nurse or asthma educator.



Step 4

The marker will go up and stay up. Do not touch the marker. Find the number where the marker stopped.

Section III: For the Health Care Professional



Asthma Quality of Care Measures

Outpatients

In 2007, the National Committee for Quality Assurance (NCQA) and the Physician Consortium for Performance Improvement (PCPI) created clinical measures for the treatment and management of asthma, based on the NAEPP EPR-3 Guidelines. These are the indicators for the ambulatory care setting; each is based on a one-year period and is for any patient with asthma between ages five and 50.

Measure #1: Percentage of patients with a diagnosis of asthma who were evaluated at least once for asthma control (comprising asthma impairment and risk).

Documentation of impairment → daytime symptoms AND nighttime awakenings AND interference with normal activities AND short-acting beta-agonist use for symptom control AS WELL AS documentation of asthma risk → the number of asthma exacerbations requiring oral corticosteroids in the past 12 months.

Measure #2: Percentage of patients with a diagnosis of asthma who were queried about tobacco use and exposure to secondhand smoke in their home environments at least once.

Measure #3: Percentage of patients with a diagnosis of asthma who were identified as tobacco users or as exposed to ETS at home who received tobacco cessation intervention.

Providing cessation interventions to a pediatric patient's primary caregiver is counted even if the primary caregiver is not the smoker in the home.

Measure #4: Percentage of patients with a diagnosis of persistent asthma who were prescribed long-term control medication.

Will be determined as those prescribed inhaled corticosteroids (ICS), those prescribed non-ICS, and total prescribed any controller. Documentation of a patient's reason for not prescribing a controller also "counts".

Measure #5: Percentage of patients identified as having persistent asthma whose asthma medication ratio was ≥ 0.5 .

$$\frac{\text{Controller Medications}}{\text{Controller Medications} + \text{Reliever Medications}} = \text{Medication Ratio}$$

A higher ratio means that short-acting bronchodilators are not being overused and is associated with better asthma outcomes as well as reduced emergency room visits and hospitalizations.

Asthma Quality of Care Measures

Hospitalized or ED Patients

In 2007, the National Committee for Quality Assurance (NCQA) and the Physician Consortium for Performance Improvement (PCPI) created clinical measures for the treatment and management of asthma, based on the NAEPP EPR-3 Guidelines. These are the indicators for the hospital or emergency department setting; each is based on a one year period and is for any patient with asthma between the ages of five and 50 years.

Measure #6: Percentage of patients with an emergency department visit or an inpatient admission for an asthma exacerbation who were evaluated for asthma risk.

Asthma risk → the number of asthma exacerbations requiring oral corticosteroids in the past 12 months. Patients with ≥ 2 two exacerbations requiring steroids in the past 12 months are categorized as persistent and recommended to be prescribed a long-term controller.

Measure #7: Percentage of patients with an emergency department (ED) visit or an inpatient admission for an asthma exacerbation who are discharged from the emergency department OR inpatient setting with an asthma discharge plan.

Clinicians, before patients discharge from the ED or hospital, should provide patients with necessary medications and education on how to use them, referral for a follow-up appointment, and instruction in an ED asthma discharge plan for recognizing and managing relapse of the exacerbation or recurrence of airflow obstruction.

Summary of the NAEPP's EPR-3: Guidelines for the Diagnosis and Management of Asthma

Consider the Diagnosis of Asthma if:

- Patient has recurrent episodes of cough, wheeze, shortness of breath, or chest tightness.
- Symptoms occur or worsen at night, awakening the patient.
- Symptoms occur or worsen in the presence of factors known to precipitate asthma.
- Alternative diagnoses have been considered such as GERD (a common co-morbidity), airway anomaly, foreign body, cystic fibrosis, vocal cord dysfunction, TB or COPD. If diagnosis is in doubt, consider consulting an asthma specialist.



Confirm the Diagnosis of Asthma if:

- Spirometry demonstrates obstruction and reversibility by an increase in FEV1 of > 12% after bronchodilator (in all adults and children five years of age or older).



Assess Asthma Severity: Any of the following indicate persistent asthma

- Daytime symptoms > 2 days per week **OR**
- Awakens at night from asthma ≥ 2 times per month (age 0-4 years: ≥ 1 time per month) **OR**
- Limitation of activities, despite pretreatment for EIB **OR**
- Short-acting beta2-agonist (SABA) use for symptom control > 2 days per week (not prevention of EIB) **OR**
- 2 or more bursts oral corticosteroids in 1 year (age 0-4 years: ≥ 2 bursts oral corticosteroids in 6 months*) **OR**
- Age ≥ 5 years old: FEV1 less than 80% predicted **OR** FEV1/FVC ratio less than predicted normal range for age (see below)

*NOTE: For children age 0-4 years who had four or more episodes of wheezing during the previous year lasting > 1 day, check risk factors for persistent asthma. Risk factors include either (1) one of the following: parental history of asthma, a physician diagnosis of atopic dermatitis, or evidence of sensitization to aeroallergens, or (2) two of the following: evidence of sensitization to foods, > 4% peripheral blood eosinophilia, or wheezing apart from colds.



Treatment for Persistent Asthma: Daily inhaled corticosteroids (step 2 or higher), follow the stepwise approach. Assess response within 2-6 weeks.

Is asthma well controlled?

1. Daytime symptoms ≤ 2 days per week **AND**
2. Awakens at night from asthma ≤ 1 time per month (≥ 12 years old: ≤ 2 times per month) **AND**
3. No limitation of activities **AND**
4. SABA use for symptom control (not prevention of EIB) ≤ 2 days per week **AND**
5. ≤ 1 burst oral corticosteroids per year
6. FEV1 $\geq 80\%$ predicted
7. FEV₁/FVC \geq _____

5-19 yrs $\geq 85\%$
20-39 yrs $\geq 80\%$
40-59 yrs $\geq 75\%$
60-80 yrs $\geq 70\%$



YES
Consider step down if well controlled for three consecutive months. Reassess every 3-6 months.



NO
Step up therapy. Reassess in 2-6 weeks. Continue to step up until well controlled.



Indications for asthma specialist consultation include: Asthma is unresponsive to therapy; asthma is not well controlled within 3-6 months of treatment; life-threatening asthma exacerbation; hospitalization for asthma; required > 2 bursts oral corticosteroids in one year; requires higher level step care (see Stepwise Approach, pages 30-31); immunotherapy is being considered.

Summary of the NAEPP's EPR-3: Guidelines for the Diagnosis and Management of Asthma

Quick Tips for All Patients with Asthma:


- Planned Asthma Visits: Every 1-6 months
- Environmental Control: Identify and avoid exposures such as tobacco smoke, pollens, molds, animal dander, cockroaches, and dust mites (Allergy testing recommended for anyone with persistent asthma who is exposed to perennial indoor allergens)
- Flu Vaccine: Recommend annually
- Spirometry (Not During Exacerbation): At diagnosis and at least every 1-2 years starting at age five years
- Asthma Control: Use tools such as ACQ[®], ACT[™] or ATAQ[©] to assess asthma control
- Asthma Education: Review correct inhaled medication device technique at every visit
- Asthma Action Plan: At diagnosis; review and update at each visit
- SABA (e.g., inhaled albuterol): 1) for quick relief every 4-6 hours as needed (see step 1), 2) pretreat with 2 puffs for exercise-induced bronchospasm (EIB) 5 minutes before exercise
- Inhaled Corticosteroids (ICS): Preferred therapy for all patients with persistent asthma
- Oral Corticosteroids: Consider burst for acute exacerbation
- Valved Holding Chamber (VHC) or Spacer: Recommend for use with all metered dose inhalers (MDI)
- Mask: Recommend for use with VHCs or spacers and/or nebulizer for age < 5 years and anyone unable to use correct mouthpiece technique

Summary of the NAEPP's EPR-3: Stepwise Approach for Managing Asthma in Children and Adults

Intermittent Asthma (Step 1)

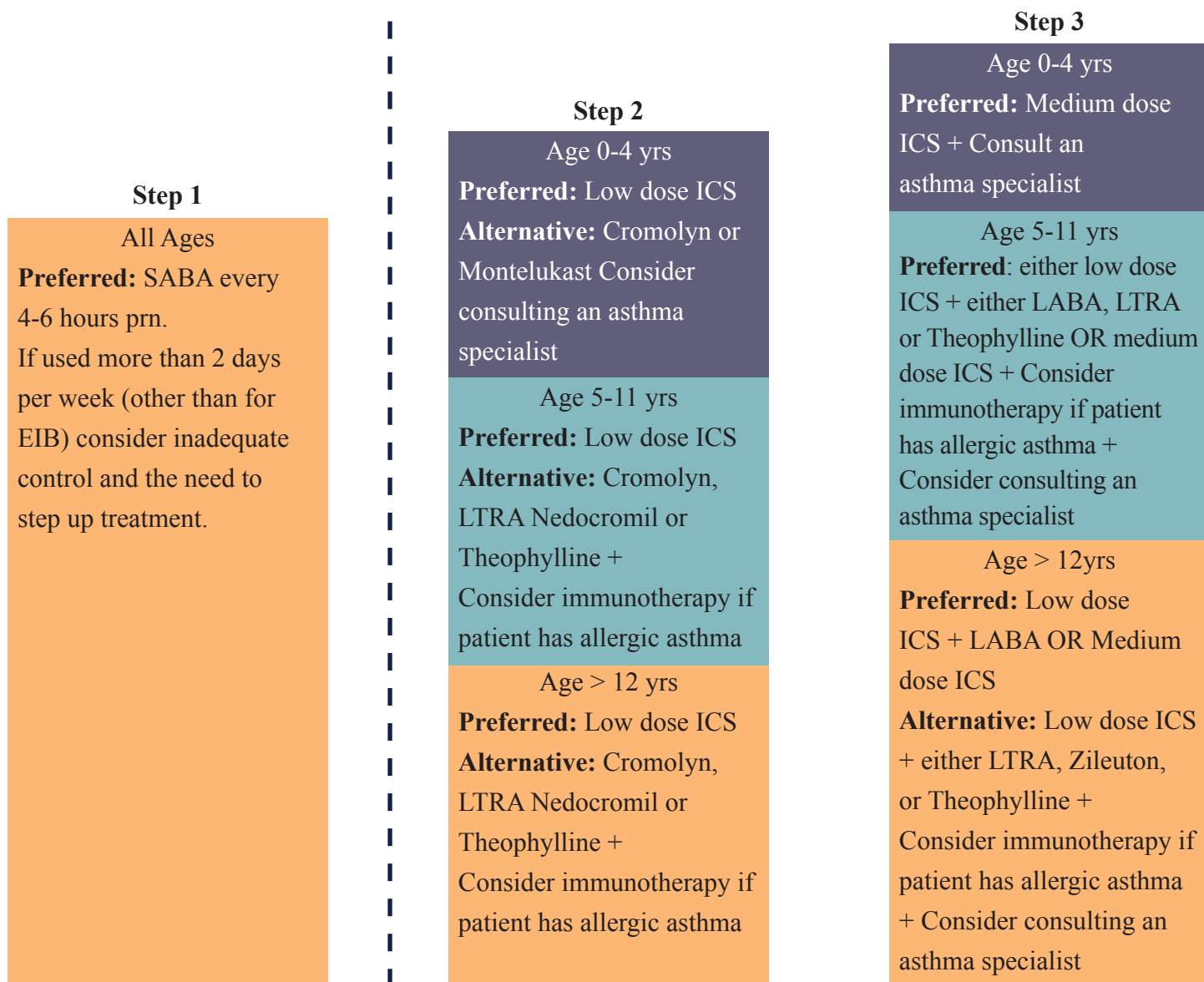
Persistent Asthma: Daily Medication (Steps 2-6)

Classifying asthma severity in patients not currently taking long-term control medication is a guide for selection of initial step therapy. Regularly monitoring the level of asthma control is a guide for adjusting therapy.

Step up as indicated and/or address possible poor adherence to medication. Reassess in 2 to 6 weeks. 

 Step down if well controlled for 3 months and reassess in 3-6 months.

(All long-acting beta-agonists (LABAs) and combination agents containing LABAs have a black box warning.)



Estimated Comparative Daily Dosages for Inhaled Corticosteroids

Low Daily Dose

Drug	Child 0-4 Years Old	Child 5-11 Years Old	Child ≥ 12 Years Old and Adults
Beclomethasone HFA 40 or 80 mcg/puff	NA	80-160 mcg	80-240 mcg
Budesonide DPI 90, 180, or 200 mcg/inhalation	NA	180-400 mcg	180-600 mcg
Budesonide Inhaled Inhalation suspension for nebulization	0.25-0.5 mg	0.5 mg	NA
Flunisolide 250 mcg/puff	NA	500-750 mcg	500-1,000 mcg
Flunisolide HFA 80 mcg/puff	NA	160 mcg	320 mcg
Fluticasone HFA/MDI 44, 110, or 220 mcg/puff	176 mcg	88-176 mcg	88-264 mcg
Fluticasone DPI 50, 100, or 250 mcg/inhalation	NA	100-200 mcg	100-300 mcg
Mometasone DPI 200 mcg/inhalation	NA	NA	200 mcg
Triamcinolone acetone 75 mcg/puff	NA	300-600 mcg	300-750 mcg

Key: DPI, dry power inhaler; HFA, hydrofluoroalkane; MDI, metered-dose inhaler; NA, not available (either not approved, no data available)

Estimated Comparative Daily Dosages for Inhaled Corticosteroids

Medium Daily Dose

Drug	Child 0-4 Years Old	Child 5-11 Years Old	Child ≥ 12 Years Old and Adults
Beclomethasone HFA 40 or 80 mcg/puff	NA	>160-320 mcg	>240-480 mcg
Budesonide DPI 90, 180, or 200 mcg/inhalation	NA	>400-800 mcg	>600-1,200 mcg
Budesonide Inhaled Inhalation suspension for nebulization	>0.5-1.0 mg	1.0 mg	NA
Flunisolide 250 mcg/puff	NA	1,000-1,250 mcg	>1,000-2,000 mcg
Flunisolide HFA 80 mcg/puff	NA	320 mcg	>320-640 mcg
Fluticasone HFA/MDI 44, 110, or 220 mcg/puff	>176-352 mcg	>176-352 mcg	>264-440 mcg
Fluticasone DPI 50, 100, or 250 mcg/inhalation	NA	>200-400 mcg	>300-500 mcg
Mometasone DPI 200 mcg/inhalation	NA	NA	400 mcg
Triamcinolone acetonide 75 mcg/puff	NA	>600-900 mcg	>750-1,500 mcg

Key: DPI, dry power inhaler; HFA, hydrofluoroalkane; MDI, metered-dose inhaler; NA, not available (either not approved, no data available)

Estimated Comparative Daily Dosages for Inhaled Corticosteroids

High Daily Dose

Drug	Child 0-4 Years Old	Child 5-11 Years Old	Child ≥ 12 Years Old and Adults
Beclomethasone HFA 40 or 80 mcg/puff	NA	>320 mcg	>480 mcg
Budesonide DPI 90, 180, or 200 mcg/inhalation	NA	>800 mcg	>1,200 mcg
Budesonide Inhaled Inhalation suspension for nebulization	>1.0 mg	2.0 mg	NA
Flunisolide 250 mcg/puff	NA	>1,250 mcg	>2,000 mcg
Flunisolide HFA 80 mcg/puff	NA	640 mcg	>640 mcg
Fluticasone HFA/MDI 44, 110, or 220 mcg/puff	>352 mcg	>352 mcg	>440 mcg
Fluticasone DPI 50, 100, or 250 mcg/inhalation	NA	>400 mcg	>500 mcg
Mometasone DPI 200 mcg/inhalation	NA	NA	400 mcg
Triamcinolone acetone 75 mcg/puff	NA	>900 mcg	>1,500 mcg

Key: DPI, dry power inhaler; HFA, hydrofluoroalkane; MDI, metered-dose inhaler; NA, not available (either not approved, no data available)

Asthma and Tobacco Use

Louisiana Tobacco Quitline

Secondhand smoke can trigger asthma episodes and increase the severity of attacks. Secondhand smoke is also a risk factor for new cases of asthma in preschool age children who have not already exhibited asthma symptoms. Secondhand smoke is linked to other chronic respiratory illnesses, such as bronchitis and pneumonia. Quitting tobacco use can greatly reduce the severity of asthma attacks and overall improve the health of Louisianians living with asthma and caregivers who currently smoke.

Find out how you can quit using tobacco by receiving FREE telephone counseling from the Louisiana Tobacco Quitline at 1-800-QUIT-NOW. Quitting Tobacco is hard. Have you tried to quit several times and you are still hooked? Don't stop trying. You can quit!

When you call the Louisiana Tobacco Quitline you will receive:

- One-on-one proactive telephone counseling with a Quit Coach.[®]
- A Quit Coach[®] can provide proactive telephone counseling sessions to help you through the quitting process and through potential relapse phases.
- Referrals to local smoking cessation services in your community.
- A Quit Coach[®] will provide you with information on local smoking cessation services in your community.

Practical advice and tips to help you quit for good

- Quit Coaches[®] know how to make quitting easier by providing support and practical tips.
- You'll get the help that fits your needs as a Quit Coach[®] develops a quit plan to improve your chances of success and helps you find ways to change your daily activities that trigger smoking, as well as help you cope with your cravings and avoid weight gain.
- The Quitline really works! People who get help from the Quitline are twice as likely to quit for good.

Quitting is hard, but getting professional help will improve your chances of success. The Louisiana Tobacco Quitline becomes your partner, and your Quit Coach[®] is there to support you through tough times to avoid a relapse.

You may call to speak to a Quit Coach[®] anytime seven days a week between 7 a.m.– 2 a.m. CST.



Louisiana Tobacco-Free Healthcare Facilities

Why is it important to have tobacco-free health care facilities in Louisiana?

Louisiana health care facilities are ideal role models of healthy environments within the community. The initiative for these facilities to be 100% tobacco-free campuses supports protecting patients, employees and visitors from any exposure to secondhand smoke. According to a recent U.S. Surgeon General Report, there is no safe level of exposure to tobacco smoke. Therefore, a 100% Tobacco-Free campus-wide policy is the healthiest option.

What are the benefits of being a tobacco-free health care facility?

- This policy showcases the health care facility's role as a community leader in protecting the health of the public and motivates others to do likewise.
- By encouraging employees to quit and preventing secondhand smoke exposure, the initiative reduces health care costs because of illnesses caused by tobacco use and exposure and reduces expenses incurred by loss of productivity and absenteeism.
- By increasing the number of tobacco-free environments, the policy supports people in quitting the use of tobacco. Health care facilities are increasing and enhancing the cessation benefits and resources they offer to their employees to help them successfully quit.

What can we do to support tobacco-free health care facilities?

The most important thing health care facilities can do to support this initiative is to show a commitment by implementing a 100% tobacco-free health care policy.

What are the elements of a 100% tobacco-free health care policy?

- Consistency with state law, Louisiana Smoke-Free Air Act 815
- Tobacco use prohibited by all on premises, including parking lots, sidewalks, lawn areas and all facility-owned properties.

How can our health care facility become tobacco-free?

Visit www.latobaccocontrol.com to download the Project H.E.A.L. Manual. The purpose of this manual is to provide technical assistance and guidance to health care facilities implementing 100% tobacco-free campuses.

How can I get more information?

To get more information, please contact Brandi Bourgeois, Interim Program Manager, at 225-342-9307 or email Brandi.Bourgeois@la.gov.

F.L.A.R.E Asthma Discharge Protocol

What is F.L.A.R.E.?

F.L.A.R.E. is an evidence-based asthma education discharge protocol that helps hospitals implement the patient education components of the National Institutes of Health (NIH) Guidelines for the Diagnosis and Management of Asthma. F.L.A.R.E. includes five key messages to help asthma patients better manage their disease:

- F** – Follow up with a primary doctor
- L** – Learn about asthma medicines
- A** – Asthma is a life-long disease
- R** – Respond to warning signs that asthma is getting worse
- E** – Emergency care may be needed if certain symptoms occur

F.L.A.R.E. Training

1-hour training for hospital staff on how to implement F.L.A.R.E. The training is available at no cost to Louisiana hospitals. The F.L.A.R.E. training will include:

- How F.L.A.R.E. helps hospitals meet the NIH Asthma Guidelines;
- How to successfully implement F.L.A.R.E. (taught by a Louisiana health care provider and/or respiratory specialist); and
- F.L.A.R.E. benefits: patient education and decreased ‘repeat’ asthma discharges.

All training participants will receive the Louisiana Asthma Health Care Provider Toolkit. Hospitals participating in the training will also receive color copies of F.L.A.R.E., as well as the Louisiana Asthma Management & Prevention Program (LAMP) Asthma Action Plan and the F.L.A.R.E. Patient Follow-up Referral Form. As part of the F.L.A.R.E. Training Initiative, the LAMP Program will provide additional trainings as needed for staff in hospitals planning to implement F.L.A.R.E.

Who Should Attend

Providers who interact with asthma patients: administrators, respiratory therapists, nurses, case managers, certified asthma educators, health educators, emergency department staff and physicians.

Training Location

F.L.A.R.E. trainers from the LAMP Program will schedule free, on-site trainings for interested hospitals. The training takes one hour and can be scheduled at various times of the day to best meet the needs of hospital staff.

To request F.L.A.R.E. training, visit www.asthma.dhh.louisiana.gov to download a training request form and fax to Mark Perry at 225-342-5839. For any additional information, contact LAMP at 225-342-2673.



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www.asthma.dhh.la.gov

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