Asthma Coalition of Greater Lowell

Winter 2018 Newsletter

Healthy communities for all, where asthma is reduced and well managed.

New Beginnings for Asthma

In this issue, we look into strategies to prepare us for the new year. Medication maintenance is one of the most important ways to prevent severe asthma symptoms. Due to the numerous types of inhalers in the market now, it is critical to understand the differences between each one. With the increasing rates of asthma, there is has also been an increase in emergency department visits related to asthma. Research shows that some of these visits could have been potentially preventable as well. Learning how to control asthma symptoms and treating them appropriately can increase your quality of life and decrease the costs of medical expenses.

Cold Weather As An Asthma Trigger

Cold air can cause wheezing, cough, or shortness of breath. With the cold season, when people spend more time indoors they are more exposed to indoor air pollutants such as dust, fumes from cooking, or pests. If you are spending time outdoors wear a scarf and breathe through your nose to warm the air. Make sure to keep you rescue inhaler on hand and use your maintenance medications as directed by your doctor. If you haven't already done so, get your influenza vaccine or flu shot to protect yourself from getting the cold or flu. The cold weather can worsen your asthma symptoms, but being prepared ahead of time can also make it easier to manage.

New Year, New Medications

As we bring in 2019, it is important to prepare for another year of controlled asthma symptoms.

- Plan for Annual Check-up & Appointments
- Develop an Asthma Action Plan with your Doctor
- Check Expiration Dates of Medications
- Get Additional Refills for Medications
- Ask about Using a Spacer

Maintaining your asthma symptoms and going to regular doctors visits will decrease the rates of emergency department visits. As an adult or parent it is critical to meet with a physician to reevaluate your health and ensure that your asthma is being controlled as it should be. Expiration dates can be found on the boxes or actual inhaler. For metered doses you can tell how many doses are left before it runs out. You may have to see the doctor for additional refills, but if you already had one, you may just have to call for more refills. For both older adults and children, you can also inquire about getting a prescription for a spacer that makes it easier to use inhalers as well.

Inside This Issue:

Join Our Next Meeting:

Tuesday February 12th

@ 55 Technology Drive

10:00-11:30AM

See Page 4 for more info

Differentiating Between Types of Inhalers

Knowing which and how to use an inhaler properly can lead to better asthma control.

Contact your healthcare provider for any questions or concerns regarding your medication. It is critical to adhere to your prescribed medications as directed.

Creating an Asthma Action Plan and reviewing inhaler techniques are just some of the ways to self-manage your asthma.

Short-Acting Beta Agonists: "Rescue"

Intended Use: Quick/immediate relief of asthma symptoms (Short Term)

Usual Dosage: Inhale 1-2 Puffs every 4-6 Hours **as needed**

Inhaled Corticosteroids: "Maintenance"

Intended Use: Control & Management of asthma symptoms (Long Term)

Usual Dosage : Inhale 1-2 puffs **daily***

*May vary for adults and children, check with your doctor

Asthma Medications

Relievers / Rescue / Bronchodilators

Short-acting Beta$_2$ Agonists

ProAir
albuterol sulfate
90mcg
Teva

ProAir RespiClick
albuterol sulfate dry powder
90mcg
Teva

Proventil
albuterol sulfate
90mcg
Merck

Ventolin
albuterol sulfate
90mcg
GlaxoSmithKline

Xopenex
levalbuterol tartrate
45mcg
Sunovion

Nebulized Albuterol
albuterol sulfate
2.5mg/3mL
generic

Xopenex Inhalation Solution
levalbuterol HCl
0.31mg/3mL
Sunovion

Xopenex Inhalation Solution
levalbuterol HCl
0.63mg/3mL
Sunovion

Xopenex Inhalation Solution
levalbuterol HCl
1.25mg/3mL
Sunovion

Ipratropium Bromide

Atrovent*
ipratropium bromide
17mcg
Boehringer Ingelheim

Combivent Respimat*
ipratropium bromide 20mcg,
albuterol sulfate 100mcg
Boehringer Ingelheim

* Ipratropium bromide is not a recommended rescue inhaler outside of use in the emergency room or urgent care but may, on occasion, be prescribed to supplement short-acting Beta$_2$ agonists.

Source: http://www.health.state.mn.us/divs/healthimprovement/programs-initiatives/in-communities/asthmameds.html

Controllers

Inhaled Corticosteroids (ICS): Metered-Dose Inhalers (MDI)

Aerospan
flunisolide
80mcg
Meda Pharmaceuticals

Alvesco
ciclesonide
80mcg
Sunovion

Alvesco
ciclesonide
160mcg
Sunovion

Asmanex
mometasone furoate
100mcg
Merck

Asmanex
mometasone furoate
200mcg
Merck

Flovent
fluticasone propionate
44mcg
GlaxoSmithKline

Flovent
fluticasone propionate
110mcg
GlaxoSmithKline

Flovent
fluticasone propionate
220mcg
GlaxoSmithKline

QVAR
beclomethasone dipropionate
40mcg
Teva

QVAR
beclomethasone dipropionate
80mcg
Teva

Inhaled Corticosteroids (ICS): Dry Powder Inhalers

ArmonAir RespiClick
fluticasone propionate
55mcg
Teva

ArmonAir RespiClick
fluticasone propionate
113mcg
Teva

ArmonAir RespiClick
fluticasone propionate
232mcg
Teva

Arnuity Ellipta
fluticasone furoate
100mcg
GlaxoSmithKline

Arnuity Ellipta
fluticasone furoate
200mcg
GlaxoSmithKline

Asmanex Twisthaler
mometasone furoate
110mcg
Merck

Asmanex Twisthaler
mometasone furoate
220mcg
Merck

Flovent Diskus
fluticasone propionate
50mcg
GlaxoSmithKline

Flovent Diskus
fluticasone propionate
100mcg
GlaxoSmithKline

Flovent Diskus
fluticasone propionate
250mcg
GlaxoSmithKline

Pulmicort Flexhaler
budesonide
90mcg
AstraZeneca

Pulmicort Flexhaler
budesonide
180mcg
AstraZeneca

Combination Therapies

Advair
fluticasone propionate, salmeterol
45mcg/21mcg
GlaxoSmithKline

Advair
fluticasone propionate, salmeterol
115mcg/21mcg
GlaxoSmithKline

Advair
fluticasone propionate, salmeterol
230mcg/21mcg
GlaxoSmithKline

Advair Diskus
fluticasone propionate, salmeterol
100mcg/50mcg
GlaxoSmithKline

Advair Diskus
fluticasone propionate, salmeterol
250mcg/50mcg
GlaxoSmithKline

Advair Diskus
fluticasone propionate, salmeterol
500mcg/50mcg
GlaxoSmithKline

Airduo RespiClick
fluticasone propionate/ salmeterol
55mcg/14mcg
Teva

Airduo RespiClick
fluticasone propionate/ salmeterol
113mcg/14mcg
Teva

Airduo RespiClick
fluticasone propionate/ salmeterol
232mcg/14mcg
Teva

Breo Ellipta
fluticasone furoate/ vilanterol
100mcg/25mcg
GlaxoSmithKline

Breo Ellipta
fluticasone furoate/ vilanterol
200mcg/25mcg
GlaxoSmithKline

Dulera
mometasone furoate, formoterol fumarate
100mcg/5mcg
Merck

Dulera
mometasone furoate, formoterol fumarate
200mcg/5mcg
Merck

Symbicort
budesonide, formoterol fumarate
80mcg/4.5mcg
AstraZeneca

Symbicort
budesonide, formoterol fumarate
160mcg/4.5mcg
AstraZeneca

Inhaled Corticosteroids (ICS): Nebulized

Pulmicort Respules
budesonide
0.25mg/2mL
AstraZeneca

Pulmicort Respules
budesonide
0.5mg/2mL
AstraZeneca

Pulmicort Respules
budesonide
1mg/2mL
AstraZeneca

Anticholinergic Controller

Long acting anti-mucarinici agent (LAMA)

Spiriva Respimat
tiotropium bromide
1.25mcg
Boehringer Ingelheim

Long-acting Beta$_2$ Agonists (LABA)

Serevent Diskus*
salmeterol xinafoate
50mcg
GlaxoSmithKline
*use with an ICS

Source: http://www.health.state.mn.us/divs/healthimprovement/programs-initiatives/in-communities/asthmameds.html

Increased Uptake of Emergency Department Visits for Asthma

Between 2010 and 2014, Lawrence and Lowell were the only two cities that had statistically significantly higher rates of emergency department (ED) visits related to asthma compared to the statewide rate. Except for Methuen who did not differ significantly, other cities or towns in the Greater Lowell area experienced much lower rates. The statewide age-adjusted rate for males and females combined was 70.86 per 10,000 people.

In 2014, 104.14 out of every 10,000 residents in Lowell visited the emergency department for asthma after adjusting for age. This is equivalent to 1.04% of the city's population. In the same year, Lawrence had an adjusted rate of 163.72 per 10,000 people or 1.63%.

Between 2001 and 2010, rates of ED visits by children had increased by 13.3% (Nath & Hsia, 2015). Factors contributing to these "potentially preventable" visits were lack of a primary care provider or lack of a medical home (Johnson, Chambers & Dexheimer, 2016). Another reason may be lack of insurance or working during office hours, but personnel of the ED view the increased rates due to lack of knowledge about what is considered as a "true emergency."

Reasons why an adult may delay care for asthma are due to cost and insurance issue. A 2001 study in California found that women and Latinos with severe asthma were more likely to visit the ED. On the other hand Asian, African American, and uninsured adults with less severe asthma were more likely to visit the ED (Meng, et al., 2006).

Average Age Adjusted Rates of Emergency Dept Visit For Asthma per 10,000 People for 2010-2014

Community	Case Count	Crude Rate	Age Adjusted Rate	Confidence Interval	Statistical Difference
Billerica	143	34.70	36.44	33.77-39.11	Statistically Significantly Lower
Chelmsford	76	22.08	24.67	22.19-27.15	Statistically Significantly Lower
Dracut	133	43.95	46.87	43.31-50.43	Statistically Significantly Lower
Lawrence	1,279	161.64	157.82	153.95-161.69	Statistically Significantly Higher
Lowell	1,029	93.75	94.49	91.91-97.07	Statistically Significantly Higher
Methuen	324	66.30	69.72	66.33-73.11	Not Statistically Significantly Different
Tewksbury	94	31.93	35.05	31.89-38.21	Statistically Significantly Lower
Tyngsborough	39	33.48	35.86	30.80-40.92	Statistically Significantly Lower
Statewide	**44,918**	**67.31**	**70.86**	**70.57-71.15**	

Lawrence

Year	Case Count	Crude Rate	Age Adjusted Rate	Confidence Intervals	Statistical Difference
2010	1,269	166.32	161.90	152.99 - 170.81	Statistically significantly higher
2011	1,310	167.88	164.29	155.39 - 173.19	Statistically significantly higher
2012	1,232	155.84	151.56	143.10 - 160.02	Statistically significantly higher
2013	1,209	150.42	147.65	139.33 - 155.97	Statistically significantly higher
2014	1,374	167.97	163.72	155.06 - 172.38	Statistically significantly higher
Lawrence - Total	**1,279**	**161.64**	**157.82**	**153.95 - 161.69**	**Statistically significantly higher**

Lowell

Year	Case Count	Crude Rate	Age Adjusted Rate	Confidence Intervals	Statistical Difference
2010	1,017	95.60	95.08	89.24 - 100.92	Statistically significantly higher
2011	961	88.63	89.24	83.60 - 94.88	Statistically significantly higher
2012	1,022	92.96	94.15	88.38 - 99.92	Statistically significantly higher
2013	984	88.23	89.84	84.23 - 95.45	Statistically significantly higher
2014	1,163	103.14	104.14	98.15 - 110.13	Statistically significantly higher
Lowell - Total	**1,029**	**93.75**	**94.49**	**91.91 - 97.07**	**Statistically significantly higher**

Data Retrieved from MDPH Bureau of Environmental Health: MA Environmental Public Health Tracking

Steps an individual can take to decrease the rate of ED visits include:

- regular consultation/annual check-ups
- adherence to medication
- control exposures of environmental triggers

Sources:

Nath, J. B., & Hsia, R. Y. (2015). Children's emergency department use for asthma, 2001-2010. Academic pediatrics, 15(2), 225-30.

Johnson, L. H., Chambers, P., & Dexheimer, J. W. (2016). Asthma-related emergency department use: current perspectives. Open access emergency medicine : OAEM, 8, 47-55. doi:10.2147/OAEM.S69973

Meng, Y, Babey, S. H., Brown, E. R., Malcolm, E., Chawla, N., & Lim, Y.W.(2006). Emergency department visits for asthma: the role of frequent symptoms and delay in care.. Annals of allergy, asthma & immunology, 96(2), 291-7. doi:10.1016/s1081-1206(10)61238-0

Local Medication Drop-Off Locations

CVS Pharmacy:

Lowell
1815 Middlesex St
336 Bridge St

Haverhill
425 Lowell St

Walgreens:

Lowell
54 Plain St

Contact your local health department or police department to find out if your town has a medication drop-off day.

Police Departments:

Billerica 6 Good St	Lawrence 90 Lowell St
Chelmsford 2 Olde North Rd	Lowell 50 Arcand Dr
Dracut 110 Loon Hill Rd	Methuen 90 Hampshire St
Tewksbury 918 Main St	Tyngsborough 20 Westford Rd

Asthma Coalition of Greater Lowell Meeting Schedule for 2019	
Tuesday, February 12th	10:00AM-11:30AM
Tuesday, April 9th	10:00AM-11:30AM
Tuesday, June 4th	10:00AM-11:30AM
Tuesday, August 13th	10:00AM-11:30AM
Tuesday, October 15th	10:00AM-11:30AM
Tuesday, December 10th	10:00AM-11:30AM
Venue: 55 Technology Drive, Lowell, MA 01851 Circle Health (GLHA) Office Location (2nd Floor) Newton Conference Room	

Please note the time and room change for the 2019 year.

@ACGreaterLowell

Contact us:
asthmacoalition.greaterlowell@gmail.com

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