

# Breathe Better Live Better!

2017/2018

## Epinephrine Injector Breakdown



By *Andrea Jones, MD*

**E**pinephrine is the emergency treatment for anaphylaxis, and is available as an on-hand injector for patients with the potential for severe allergic reactions. Recently, new epinephrine injectors have become available for patients. At Colorado Allergy & Asthma Centers, we know there is value in having choices and we want our patients to be well informed about their options.

For years, EpiPen has dominated the epinephrine injector market, accounting for more than 90% of the market share. The list price for EpiPen has significantly increased, from \$100 in 2009 to over \$600 today for a two-pack! The public criticized this price increase, as many patients were unable to afford this potentially life-saving medication. Subsequently, the manufacturer released coupon cards, allowing some patients to save up to \$300. The EpiPen manufacturer also introduced a generic version of the EpiPen. It is the same product, without the brand name on it, and costs about half the price. Go figure!

Another epinephrine injector, the Auvi-Q, was released in 2012. This device boasts a more compact shape with the ability to talk a patient through the injection process.



In late 2015, the Auvi-Q was voluntarily recalled for inaccurate dosing delivery, but has since returned to the market in 2017. The Auvi-Q is priced at a whopping \$4,500 for a two-pack. However, patients with commercial insurance will have \$0 out-of-pocket costs for the device. The kicker? The insurers will be billed for this enormous price, in order to subsidize patient costs. Some argue this strategy exploits the healthcare system and will only continue to drive up healthcare costs, ultimately leading to increased premiums for all of us next year.

Finally, the last epinephrine injector available is the authorized generic of AdrenaClick. In early 2017, CVS pharmacies began to sell this product for a price of \$109.99 for a two-pack, paid with cash or by insurance. Although the medication in these injectors is the same, each device has unique features and each has a slightly different administration technique. With all of these options now available, talk to your allergist about which epinephrine injector will best fit your needs.



*Breathe Better - Live Better!*



Did you know that Colorado Allergy & Asthma Centers, P.C. has 2 Clinical Research facilities located in Denver & Centennial? If you are interested in participating in a research study, please visit our website and fill out a Clinical Research Questionnaire and someone from one of our research sites will contact you to determine if you qualify for a current study. [www.coloradoallergy.com/research/clinical-trial-participation/](http://www.coloradoallergy.com/research/clinical-trial-participation/)

# CAAC Gives Back!

2017 here at CAAC is a year of giving back. The Board of Director's has developed a Community Outreach Fund and will be distributing \$12,000 throughout our 12 clinics in an effort to give back to each of their respective twelve communities. Each clinic is allotted funds to serve to a particular organization of need within their community and is also encouraged to serve of their time as well. The CAAC Board of Directors feels that by providing these modest grant awards to our area non-profits, we can increase our local impact.



The recipients of the outreach funds run the gamut – CEC (Colorado Early College) is a school whose mission is to work to eliminate the structural opportunity gaps that negatively impact their students; Samaritan House works tirelessly to help feed and rehabilitate Denver's homeless population; Rocky Mountain Diaper Depot collects and distributes fresh diapers through agencies in Denver to help keep babies clean, dry and healthy; Adam's Camp whose goal is to realize the potential of children and young adults with special needs; to name just a few. The physicians and staff were thrilled with the opportunity to not only provide a financial gift to these organizations, but to roll up their sleeves and give back.



## An Injection for Asthma?

By *Monica B. Reddy, MD*



Asthma treatment has transformed significantly over the past few years. While the mainstay of asthma treatment continues to be the use of daily inhalers to maintain asthma control, novel asthma therapies have been approved over the past several years. These new treatments are injectable medications known as immunomodulators. An immunomodulator, also known as a monoclonal antibody, is a medication designed to block certain cells and proteins of the immune system that are elevated. These cells and proteins are thought to be the culprit in select patients with severe asthma.

One cell that is elevated in certain asthmatic patients is the eosinophil. The eosinophil is a type of white blood cell that contributes largely to allergic disease and can be elevated in allergic conditions other than asthma. A protein that can be elevated in certain asthmatic patients is immunoglobulin E. Immunoglobulin E is an antibody that is produced in response to allergies and that also drives allergic immune responses in the body. Both elevated eosinophils and immunoglobulin E can contribute to severe, uncontrolled asthma in some patients.

There are currently three approved monoclonal antibodies for asthma; these are omalizumab, mepolizumab, and reslizumab. These medications are indicated only in certain populations of severe asthmatic patients who are having multiple exacerbations requiring oral steroid treatments. These patients have elevated eosinophils and/or immunoglobulin E on blood tests. Studies show that blocking immunoglobulin E and eosinophils leads to improved asthma control. Omalizumab is directed against immunoglobulin E. Mepolizumab and reslizumab are directed against interleukin-5, a growth factor for eosinophils. These medications are given as an injection and are only given under the supervision of medical personnel.

An initial evaluation for asthma and determination of asthma severity consists of pulmonary function tests to assess the state of the lungs and a thorough discussion of asthma symptoms. If a patient has severe and uncontrolled asthma, despite the use of daily corticosteroid inhalers and other approved medications, they may have blood testing ordered by their allergist to see if they are a candidate for these medications. These monoclonal antibodies are considered add-on treatments for severe asthma and would not be used without a daily inhaler to maintain asthma control.

# Research at Colorado Allergy and Asthma

By *Shaila U. Gogate, MD*



CAAC has been performing clinical research trials for more than 40 years. The clinical research program at Colorado Asthma Allergy Centers has grown over the years to nearly 20 full time staff and hundreds of patients who have participated in our trials. CAAC has been involved in the development of well-known asthma and allergy medications: Symbicort, Ventolin, Singular, Flonase, Zyrtec; just to name a few.

There are a number of reasons to participate and perform clinical research. For the doctor, it provides access to cutting edge treatment for their patients and to become well versed on treatment options even before they become widely used. In addition, clinical research enables medical professionals to:

- Stay at the forefront of knowledge in our profession
- Provide the best and most up-to-date treatment for our patients
- Enable patients and medical staff to gain first hand knowledge of promising new drugs and devices
- Make available to our patients otherwise unobtainable medications
- Make a contribution to medical progress and advancement

There are a number of reasons our patients elect to participate in clinical trials. Oftentimes they have asthma, COPD or allergies and are interested in finding a cure or better treatment of these conditions. Sometimes, they are healthy and want to improve treatment for a certain disease. The following are additional ways patients find value when participating in clinical research:

- Opportunity to contribute to the development of medical treatments
- Further understanding of their disease process
- Drugs under study are at no charge
- Additional medications may be provided at no cost
- Monetary compensation for time and travel
- Free medical tests and examinations e.g. / chest x-ray / laboratory tests/skin testing etc.

**Interested? Contact your nearest CAAC Research Site today!**



## Founder's Award Scholarships

The physicians of Colorado Allergy & Asthma Centers, P.C. proudly award four \$1000 scholarships each year to our patients. The scholarships are presented in honor of the four Founding Fathers of CAAC: David Pearlman, M.D., Sanford Avner, M.D., Jerome Buckley, M.D., and John Selner, M.D.

The eligibility requirements are as follows: graduating high school seniors, college undergraduate or graduate students who are in good academic standing and have been accepted or are currently enrolled in an accredited U.S. college. Applicants must be a current patient of CAAC for a minimum of one year as well as a citizen of the United States. Applications and criteria can be found on our website at: [coloradoallergy.com/about-us/scholarship/](http://coloradoallergy.com/about-us/scholarship/)



Teach your child about the seriousness of food allergies. Help stop food allergy bullying.



## PHYSICIANS

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COLORADO ALLERGY & ASTHMA CENTERS, P.C.

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Denver, Colorado 80230

*Leaders in Allergy  
and Asthma Care  
for over 40 years*

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## CLINIC LOCATIONS

## GREENWOOD VILLAGE RELOCATION

Scheduled September 2017 • Same Address, new Suite number will be #107

### BRIGHTON

4700 E. Bromley Ln., Ste 207  
Brighton, CO 80601  
(303) 654-1234  
Fax: (303) 654-0955

### BROOMFIELD

340 E. 1st Ave., Ste 307  
Broomfield, CO 80020  
(303) 428-6089  
Fax: (303) 412-2141

### CASTLE ROCK

2352 Meadows Blvd., Ste 300  
Castle Rock, CO 80109  
(720) 858-7470  
Fax: (303) 797-2166

### CENTENNIAL

14000 E. Arapahoe Rd., Ste 240  
Centennial, CO 80112  
(303) 632-3694  
Fax: (303) 632-3692  
**RESEARCH:** (303) 632-3646

### DENVER

Administrative Location  
125 Rampart Way, Ste 100  
Denver, CO 80230  
(720) 858-7600  
Fax: (720) 858-7610  
**RESEARCH:** (720) 858-7510

### DENVER-HIGHLANDS

2490 W. 26th Ave., Ste A120  
Denver, CO 80211  
(720) 858-7474  
Fax: (720) 858-7488

### FORT COLLINS

2014 Caribou Dr., Ste 200  
Ft. Collins, CO 80525  
(970) 221-1681  
Fax: (970) 221-0948

### GREELEY

3400 W. 16th St., Bldg 5, Unit Y  
Greeley, CO 80634  
(970) 356-3907  
Fax: (970) 356-3825

### GREENWOOD VILLAGE

7180 E. Orchard Rd., Ste 208  
Englewood, CO 80111  
(303) 740-0998  
Fax: (303) 740-7250

### HIGHLANDS RANCH

9331 S. Colorado Blvd., Ste 100  
Highlands Ranch, CO 80126  
(303) 795-8177  
Fax: (303) 797-2166

### LAKEWOOD

1667 Cole Boulevard, Bldg 19, Ste 200  
Lakewood, CO 80401  
(303) 430-3131  
Fax: (303) 420-1984

### LITTLETON / SOUTHWEST

6169 S. Balsam Way, Ste 360  
Littleton, CO 80123  
(303) 971-0311  
Fax: (303) 984-0339



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