News

Preventable Injuries from Life-Saving Epinephrine Auto-Injectors on the Rise

ARLINGTON HEIGHTS, Ill., April 6, 2009 – Researchers find an increased rate of unintentional injection of epinephrine from auto-injectors for anaphylaxis (severe allergic reactions) and urge people who may need to administer the life-saving drug to themselves or others in an allergic emergency to receive regular coaching in its proper use. The report is published this month in Annals of Allergy, Asthma & Immunology, the scientific journal of the American College of Allergy, Asthma and Immunology (ACAAI).

More than 50 million Americans suffer from some type of allergy. While an allergy often makes people miserable, it's rarely dangerous, unless it results in an anaphylactic reaction, an allergic emergency. Fast-acting, self-administered epinephrine (adrenaline) auto-injectors are commonly prescribed for people who are at risk of anaphylaxis.

Systematically reviewing 26 reports published in peer-reviewed journals during the past 20 years, F. Estelle R. Simons, M.D., Department of Pediatrics and Child Health, Faculty of Medicine, University of Manitoba, Winnipeg, Manitoba, Canada, and colleagues in the United States, found that most of the 69 incidents of unintentional injection of epinephrine reported to date in the medical literature have occurred during the past 6 years.

The true rate of occurrence of unintentional injection of epinephrine from auto-injectors is unknown, but the authors note that the previously projected rate of 1 in 50,000 injections has been seriously underestimated.

"An increased rate of occurrence is likely, paralleling the increased rate of occurrence of anaphylaxis in the community and the increased dispensing rates for epinephrine auto-injectors," they stated.

Although approximately 10 percent of the injuries occurred while first aid treatment was being administered to another person, no information about the outcomes of anaphylaxis in the person for whom the epinephrine was intended was found in the articles reviewed.

The researchers therefore note that additional information is needed "about the lost dose hazard and its implications for anaphylaxis morbidity or mortality and about the indications for, and timing of, a second injection of epinephrine in this situation."

Although inadvertent injuries from epinephrine auto-injectors sometimes cause extreme discomfort, they generally have a favorable outcome.

Authors conclude, "Health care professionals should maintain vigilance about training and regular coaching of those at risk for anaphylaxis in the community and the caregivers of children at risk in the correct and safe use of epinephrine auto-injectors, ideally at yearly intervals."

About Anaphylaxis

People who have allergies and/or asthma and a history of severe allergic reaction are at increased risk, but anyone can have an anaphylactic reaction.

The most common triggers of a anaphylaxis are food (especially peanut, tree nuts – almonds, pecans, cashews, walnuts – fish, shellfish, cow's milk and egg), insect stings, medications (most commonly penicillin) and latex. Its symptoms include:

- Hives, itching and redness of the skin, lips, eyelids, or other parts of the body, and/or itching of the throat, tongue, and mouth
- Wheezing and/or difficulty breathing
- Swelling of the tongue, throat and nose
- Nausea, vomiting, diarrhea, or cramping pain in the abdomen
- Dizziness and fainting or loss of consciousness, which can lead to shock and heart failure

Patient information on allergic diseases including the free brochure, titled Be S.A.F.E Managing Allergic Emergencies (Anaphylaxis), is available by calling the ACAAI toll free number at (800) 842-7777 or visiting its Web site at HYPERLINK "http://www.acaai.org" www.acaai.org. For food allergy patient information or support, call the Food Allergy and Anaphylaxis Network (FAAN) at (800) 929-4040 or visit online at HYPERLINK "http://www.foodallergy.org" www.foodallergy.org.

News release issued by the American College of Allergy, Asthma and Immunology (ACAAI)

Caregivers of Asthmatic Children Fail to Use Albuterol Properly

ARLINGTON HEIGHTS, Ill., June 10, 2009 - Nearly one third of caregivers in low-income, urban areas used albuterol improperly in the home when treating children for acute asthma symptoms, according to a report published this month in Annals of Allergy, Asthma & Immunology, the scientific journal of the American College of Allergy, Asthma and Immunology (ACAAI).

Jane M. Garbutt, MB, ChB, FRCP (C), associate professor of medicine and pediatrics, medical director of Washington University Pediatric/Adolescent Ambulatory Research Consortium, Washington University School of Medicine, St. Louis, Mo., and colleagues, report that 32 percent of 114 caregivers in the intervention group of a randomized trial to reduce emergent care for low-income urban children used albuterol inappropriately (over-treatment or under-treatment).

"Albuterol is the most effective treatment for providing prompt relief from worsening asthma systems and is recommended for home use, guided by an asthma action plan," note the authors.

The caregivers completed a structured telephone interview with an asthma nurse to evaluate home management of their child´s acute asthma symptoms. Albuterol use for worsening asthma symptoms was categorized as appropriate for only 68 percent of caregivers, and was more likely if the children had an emergency department visit or hospitalization for asthma in the prior year.

Reportedly having an asthma action plan, or a recent primary care physician visit to discuss asthma maintenance care, did not increase the likelihood that albuterol use was appropriate.

"Caregivers reported that they would use albuterol to treat their child´s worsening asthma symptoms, but many described inappropriate use," the authors conclude. "Detailed evaluation of proper albuterol use at home may provide insight into how health care professionals can better educate and support parents in their management of acute exacerbations and more effective use of asthma action plans."

The National Asthma Education and Prevention Program (NAEPP) guidelines recommend early treatment of acute asthma symptoms with albuterol and oral corticosteroids.

Citation: Garbutt JM, et al. Home use of albuterol for asthma exacerbations. Ann Allergy Asthma Immunol 2009;102:504-509.

News release issued by the American College of Allergy, Asthma and Immunology (ACAAI)

Health Care Use is Higher in Adult Asthma Patients, Inactivity and Obesity Contributing Factors

ARLINGTON HEIGHTS, Ill., June 10, 2009 - Health care use is higher in adult asthmatic patients when compared with non-asthmatic patients, and inactivity and obesity are contributing to this increase, according to a report published this month in Annals of Allergy, Asthma & Immunology, the scientific journal of the American College of Allergy, Asthma and Immunology (ACAAI).

Shilpa Dogra, MSc, of the Lifespan Health and Performance Laboratory at York University in Toronto, Ontario, Canada, and colleagues, also found that overnight hospital stays were more common in inactive asthmatic patients regardless of body mass index (BMI), whereas both BMI and physical activity were important determinants of physician consultations.

Investigators analyzed self-reported data of an adult population of 6,835 with asthma and 78,051 without asthma from the 2005 Canadian Community Health Survey (CCHS), a nationally representative population-based cross-sectional survey. Their findings include:

Patients with asthma were 2.25 times more likely to have an overnight hospital stay, 1.48 times more likely to have four or more overnight hospital stays, and 2.43 times more likely to have three or more physician consultations compared with patients without asthma.

Inactive patients with asthma were 1.68 times more likely to have an overnight hospital stay and 1.23 times more likely to have three or more physician consultations than active patients with asthma.

Inactive/obese patients with asthma were 2.35 times more likely to have an overnight hospital stay and 2.76 times more likely to have three or more physician consultations than active/ normal weight patients with asthma.

"The most important thing to take from this study is that asthmatics, whether obese or normal weight, can benefit greatly from adopting and maintaining an active lifestyle," said Ms. Dogra. "Health care professionals working with asthmatics should inform their patients of the benefits of an active lifestyle, and the various ways in which they can overcome asthma specific barriers to physical activity, such as exercise-induced asthma. Higher activity levels not only help the individual with asthma, but also have the potential to relieve some of the burden being placed on the healthcare system."