NATIONAL
ASTHMA EDUCATOR
CERTIFICATION BOARD

August 2016

Call for Nominations to the 2017-2019 NAECB Board of Directors

Nominations for the Board of Directors for NAECB are now open.
Applications will be accepted until August 15, 2016.

There are 4 (four) positions to be filled for the 2017-2019 term. To maintain the board's professional diversity, we are looking for healthcare professionals and other individuals interested and involved in asthma education.

This year, we are in particular need of applicants in the following areas:

- Behavioral Scientist
- Nursing - in the areas of non-Advanced Practice or School Nursing
- Pharmacy
- Physician - in the area of Allergy
- Respiratory Therapy - RT/RRT/PFT

The call for nominations document and Board of Director application can be downloaded by clicking

on the links below:

NAECB Call for Nominations 2017-2019

NAECB BOD application 2017-2019

Asthma Camps

Free Weekend Respiratory camps are available thru Camp Soaring Eagle in Cornville, Arizona, for children ages 6-15 years with asthma.

Apply at: www.campsoaringeagle.org *or* contact Anna Viviano, Camper Recruiter at 480-253-9924.

Here is a **great resource** to share with parents of a child or teenager with asthma, interested in **finding an asthma camp** in their community:

The Consortium on Children's Asthma Camps - http://asthmacamps.org/

Arizona Asthma Coalition's
10th Annual Clinical Asthma & Allergy Conference
Saturday, October 8th, 2016

EARLY BIRD REGISTRATION IS OPEN, SO REGISTER NOW!

The Arizona Asthma Coalition will hold its 10th Annual Clinical Conference on Saturday, October 8, 2016, from 7:15 a.m to 4:00 p.m. at the St. Joseph's Hospital & Medical Center, Phoenix.

The theme of the conference is The Role of Interprofessional Teams in Managing Asthma and Allergy.

The conference will explore the relationship of allergy and asthma, and include three tracks:

- Pharmacological Therapy - new biologics in the treatment of asthma, and the comparison of inhaled corticosteroids

- Clinical Practice - sublingual vs. asthma shots, and the role of new biologics in the treatment of asthma

- School Nurses - medication primer: basic pharmacology of inhalers, rescue vs. controllers, and protocols for training non-medical staff to manage asthma emergencies

Learn about collaborative management of chronic diseases, and the impact of air quality on asthma, and the latest research and treatments for asthma and allergies.

CME/CEU credits will be provided for physicians, PAs, nurses, nurse practitioners, asthma educators and respiratory care practitioners.

This educational activity is designed for practicing pediatric and adult primary care providers, asthma specialists (pulmonologists and allergists), pediatric and family nurse practitioners, respiratory therapists, pharmacists, nurses, quality assurance and case managers, MA's and anyone else involved in the care of people with asthma to increase their knowledge of asthma best practices.

You can register on line at www.azasthma.org, per the instructions on the attached registration form.

For questions about registration, contact Melanie Esher-Blair at mesher@peds.arizona.edu

National Jewish Health
21st Annual Allied Health Conference
September 9, 2016 in Denver Colorado

National Jewish Health will hold its 21th Annual Allied Health Conference on Friday, September 9, 2016, from 7:55 a.m to 4:00 p.m. at the Molly Blank Conference Center at National Jewish Health Main Campus 1400 Jackson St. Denver, CO 80206.

Upon completion of this conference, the participant will be able to:

*Describe the latest treatments and key self management strategies for a variety of chronic diseases and conditions.

*Discuss medication updates for selected chronic diseases.

*Discuss current issues related to inhalation therapy.

https://www.nationaljewish.org/

Please submit any upcoming conferences to info@naecb.org

Asthma in the News

ATS: New Clinical Practice Guidelines on Diagnosing Persistent Wheeze in Infants

The American Thoracic Society has issued clinical practice guidelines to help pediatricians and pediatric pulmonologists evaluate infants with recurrent or persistent wheezing.
http://bit.ly/2asx3sV

Prebiotics drastically reduce severity of exercise-induced asthma, study shows

In a small study, the effects of the prebiotic supplement Bimuno-galactooligosaccharide dramatically reduced the severity of exercise-induced asthma, and researchers saw a significant reduction in the blood markers of airway inflammation.
http://bit.ly/2ahToej

Child's home address can help guide health care

A child's home address may be enough information to identify children and families at risk for more severe cases of asthma due to social and economic hardships, and could guide risk assessment starting the moment a family arrives and registers in the hospital or at the doctor's office.
http://bit.ly/2ald7W3

Innate Immunity and Asthma Risk in Amish and Hutterite Farm Children

A new study bolsters evidence that exposure to germs from traditional farming may protect against asthma, supporting the so-called "hygiene hypothesis."
http://bit.ly/2akOoWo

From Childhood Asthma to COPD: What Influences the Trajectory?

In this follow-up report on the childhood asthma management program (CAMP), predictors of reaching peak FEV1 and patterns of decline were correlated with asthma severity in children. Researchers found that impaired lung function at enrollment and male sex were the most significant predictors of abnormal lung function growth and decline.
http://wb.md/2awTx8T

Genetic switch could pave the way towards preventing asthma

Researchers have identified the gene ADAM33 as a novel target for disease modifying therapy in asthma, as mice without the rogue gene had less airway remodeling and twitchiness, and airway inflammation rates were significantly reduced.
http://bit.ly/29R4p1t

Doctors, parents need better communication on asthma medications

In a cross-sectional study of 740 pairs of providers and parents of children ages 4-11 years diagnosed with asthma, and prescribed at least one controller medication, 72% of parents knew what type of controller medication their child was prescribed, and only 49% knew both the type and how often to administer it.
http://bit.ly/2au3XeZ

Could disguising allergens in the body treat asthma?

Nanoparticles are used as carriers to transport allergens into a patient's bloodstream, thereby avoiding the 'normal' allergic reaction
http://bit.ly/2aHxWN3

Adapting and Implementing an Evidence-Based Asthma Counseling Intervention for Resource-Poor Populations

Thornton, E, Hayes, CH

DOI:10.3109/02770903.2016.1155219

Objective:
To report implementation strategies and outcomes of an evidence-based asthma counseling intervention. The Head-off Environmental Asthma in Louisiana (HEAL) intervention integrated asthma counseling (AC) capacity and addressed challenges facing children with asthma in post-disaster New Orleans.

Methods:
The HEAL intervention enrolled 182 children (4-12 years) with moderate-to-severe persistent asthma. Recruitment occurred from schools in the Greater New Orleans area for one year. Participants received home environmental assessments and tailored asthma counseling sessions during the study period based on the National Cooperative Inner City Asthma Study and the Inner City Asthma Study. Primary (i.e., asthma symptoms) and secondary outcomes (i.e., healthcare utilization) were captured. During the study, changes were made to meet the demands of a post-hurricane and resource-poor environment which included changes to staffing, training, AC tools, and AC sessions.

Results:
After study changes were made, the AC visit rate increased by 92.3%. Significant improvements were observed across several adherence measures (e.g., running out of medications ($p = 0.009$), financial/insurance problems for appointments ($p = 0.006$), worried about medication side-effects ($p = 0.01$), felt medications did not work ($p < 0.001$)). Additionally, an increasing number of AC visits was modestly associated with a greater reduction in symptoms (test-for-trend $p = 0.059$).

Conclusion:
By adapting to the needs of the study population and setting, investigators successfully implemented a counseling intervention that improved participant behaviors and clinical outcomes. The strategies for implementing the AC intervention may serve as a guide for managing asthma and other chronic conditions in resource-poor settings.

Community Asthma Initiative to Improve Health Outcomes and Reduce Disparities Among Children with Asthma

Woods ER, Bhaumik U, Sommer SJ, Chan E, Tsopelas L, Fleegler EW, Lorenzi M, Klements EM, Dickerson DU, Nethersole S, Dulin R.

Black and Hispanic children are hospitalized with complications of asthma at much higher rates than

white children. The Boston Children's Hospital Community Asthma Initiative (CAI) provides asthma case management and home visits for children from low-income neighborhoods in Boston, Massachusetts, to address racial/ethnic health disparities in pediatric asthma outcomes.

CAI objectives were to evaluate 1) case management data by parent/guardian report for health outcomes and 2) hospital administrative data for comparison between intervention and comparison groups. Data from parent/guardian reports indicate that CAI decreased the number of children with any (one or more) asthma-related hospitalizations (decrease of 79% at 12 months) and any asthma-related emergency department visits (decrease of 56% at 12 months) among children served, most of whom were non-Hispanic black or Hispanic.

Hospital administrative data also indicate that the number of asthma-related hospitalizations per child significantly decreased among CAI participants compared with a comparison group. The CAI model has been replicated in other cities and states with adaptations to local cultural and systems variations.

Health outcome and cost data have been used to contribute to a business case to educate legislators and insurers about outcomes and costs for this enhanced approach to care. Strong partnerships with public health, community, and housing agencies have allowed CAI to leverage its outcomes to expand systemic changes locally and statewide to reduce asthma morbidity.

http://www.cdc.gov/mmwr/volumes/65/su/su6501a4.htm

Adoption of a Portal for the Primary Care Management of Pediatric Asthma: A Mixed-Methods Implementation Study

Fiks AG, Rivage ND, Mayne SL, Finch S, Ross ME, Giacomini K, Suh A, McCarn B, Brandt E, Karavite D, Staton EW, Shone LP, McGoldrick V, Noonan K, Miller D, Lehmann CU, Pace WD, Grundmeier RW.
June 2016

Background:
Patient portals may improve communication between families of children with asthma and their primary care providers and improve outcomes. However, the feasibility of using portals to collect patient-reported outcomes from families and the barriers and facilitators of portal implementation across diverse pediatric primary care settings have not been established.

Objective:
We evaluated the feasibility of using a patient portal for pediatric asthma in primary care, its impact on management, and barriers and facilitators of implementation success.

Methods:
We conducted a mixed-methods implementation study in 20 practices (11 states). Using the portal, parents of children with asthma aged 6-12 years completed monthly surveys to communicate treatment concerns, treatment goals, symptom control, medication use, and side effects. We used logistic regression to evaluate the association of portal use with child characteristics and changes to asthma management. Ten clinician focus groups and 22 semistructured parent interviews explored barriers and facilitators of use in the context of an evidence-based implementation framework.

Results:
We invited 9133 families to enroll and 237 (2.59%) used the portal (range by practice, 0.6%-13.6%). Children of parents or guardians who used the portal were significantly more likely than nonusers to be aged 6-9 years (vs 10-12, P=.02), have mild or moderate/severe persistent asthma (P=.009 and P=.04), have a prescription of a controller medication (P<.001), and have private insurance (P=.002). Portal users with uncontrolled asthma had significantly more medication changes and primary care asthma visits after using the portal relative to the year earlier (increases of 14% and 16%, respectively). Qualitative results revealed the importance of practice organization (coordinated workflows) as well as family (asthma severity) and innovation (facilitated communication and ease of use) characteristics for implementation success.

Conclusion:
Although use was associated with higher treatment engagement, our results suggest that achieving widespread portal adoption is unlikely in the short term. Implementation efforts should include workflow redesign and prioritize enrollment of symptomatic children.

http://www.ncbi.nlm.nih.gov/pubmed/27357835

The effects of direct-to-consumer advertising on medication use among Medicaid children with asthma

McRoy L, Weech-Madonado R, Bradford WD, Menachemi N, Morrisey M, Kilqore M.
July 2016

Asthma medication adherence is low, particularly among Medicaid enrollees. There has been much debate on the impact of direct-to-consumer advertising (DTCA) on health care use, but the impact on medication use among children with asthma has been unexamined. The study sample included 180,584 children between the ages of 5 and 18 with an asthma diagnosis from a combined dataset of Medicaid Analytic eXtract and national advertising data. We found that DTCA expenditure during the study period was significantly associated with an increase in asthma medication use. However, the effectiveness declined after a certain level.

http://www.ncbi.nlm.nih.gov/pubmed/27440407

Pragmatic randomized controlled trial of an allergy intervention for children aged 6 to 16 with asthma and rhinitis in general practice

Smith H, Horney D, Jones C, Goubet S, Mukhopadhyay S, Frew A.
July 2016

BACKGROUND:
It is widely believed that for allergic rhinitis and asthma, avoidance of specific triggers can improve symptom control. Whilst many children with asthma or rhinitis are sensitised to airborne allergens, primary care diagnostic and management decisions are often made without a detailed history of the allergic triggers or allergy testing. Thus, treatment decisions are empirical and allergen avoidance advice is either not given or, if given, not tailored to the child's sensitivities.

OBJECTIVE:
To ascertain whether allergy assessment and tailored advice in General Practice enhances outcomes of children with asthma and rhinitis.

METHOD:
Pragmatic RCT of allergy intervention (structured allergy history, skin prick testing and appropriate allergy avoidance advice) versus usual care in children with asthma and/or rhino-conjunctivitis. A blinded observer assessed outcomes at 12 months. Main outcome measures were symptom scores and disease-specific health-related QoL. Secondary outcomes were health care utilisation, days unable to pursue usual activities, and self-rated improvement.

RESULTS:
335 participants were randomised to formal allergy assessment or normal care. There were no

differences in participants' demographic or clinical characteristics at baseline (all p>.05). At 12 months, participants receiving the allergy intervention had fewer rhinitis symptoms (MD -3.14, 95% CI -6.01, -0.81) and an improvement in QoL (MD -0.50, 95% CI 0.32, 0.68). There were no significant changes in asthma symptoms, health care utilisation or number of days unable to pursue usual activities.

CONCLUSION:
Amongst children with known asthma and/or rhinitis in primary care, taking a structured allergy history with skin prick testing and tailored advice on allergy avoidance resulted in reduced symptoms of rhinitis and improved QoL.

http://www.ncbi.nlm.nih.gov/pubmed/27438431

Use of Medicaid and housing data may help target areas of high asthma prevalence

Vesper S, Robins T, Lewis T, Dombkowski K, Wymer L, Villegas R, Batterman S.
July 2016

OBJECTIVE:
To determine if there was a significant difference between mold contamination and asthmaprevalence in Detroit and non-Detroit Michigan homes, between newer and older homes, and if there is a correlation between mold contamination and measures of Medicaid use for asthma in the 25 Detroit zip codes.

METHODS:
Settled dust was collected from homes (n = 113) of Detroit asthmatic children and from a representative group of Michigan homes (n = 43). The mold contamination for each home was measured using the Environmental Relative Moldiness Index (ERMI) scale and the mean ERMI values in Detroit and non-Detroit homes were statistically compared. Michigan Medicaid data (thirteen measures related to asthma) in each of the 25 zip codes in Detroit were tested for correlation to ERMI values for homes in those zip codes.

RESULTS:
The mean ERMI value (14.5 ± 8.0) for Detroit asthmatic childrens' homes was significantly (Student T-test, p<0.001) greater than the mean ERMI value (2.1 ± 6.2) for the non-Detroit homes. Detroit homes > 60 years old had significantly (p = 0.01) greater mean ERMI values than Detroit homes ≤

60 years old (15.87 vs. 11.25). The percentage of children that underwent spirometry testing for their persistent asthma (based on Medicaid data) was significantly, positively correlated with the mean ERMI values of the homes in the 25 zip codes.

CONCLUSION:
Applying Medicaid-use data for spirometry testing and locating a city's older housing stock might help find foci of homes with high ERMI values.

http://www.ncbi.nlm.nih.gov/pubmed/27044669

Eczema and hay fever in childhood could develop into allergic asthma in adulthood: Study

By Dr. Victor Marchione
7/28/16

Eczema and hay fever in childhood could develop into allergic asthma in adulthood. The risk of asthma in adulthood was found to be nine times higher among those who suffered from eczema and hay fever as children.

The study looked at nearly 1,400 adult participants of the Tasmanian Longitudinal Health Study (TAHS). Participants were assessed for their childhood allergies at age seven and were followed from 1968 to 2004.

Lead author Pamela Martin said, "In this study, we see that childhood eczema, particularly when hay fever also occurs, is a very strong predictor of who will suffer from allergic asthma in adult life. The implications of this study are that prevention and rigorous treatment of childhood eczema and hay fever may prevent the persistence and development of asthma."

Principal investigator Shyamali Dharmage added, "If successful strategies to stop the 'atopic march' are identified, this could ultimately save lives and healthcare costs related to asthma management and treatment."

The researchers estimate that nearly 30 percent of asthma cases in adulthood are a result of childhood asthma.

http://www.belmarrahealth.com/eczema-and-hay-fever-in-childhood-could-develop-into-allergic-

asthma-in-adulthood-study/

What causes asthma? Clues from London's Great Smog with implications for air pollution today

By Jamie T. Mullins
7/26/16

Asthma is a chronic respiratory condition with no known cure. It impacts people of all ages through episodic constrictions of the airways, which may be even worse than it sounds. Approximately 334 million people worldwide suffer from asthma, including 24 million Americans and 5.4 million residents of the U.K., and the average annual cost of each case has been estimated to be between $US2,300and $4,000.

Our understanding of the triggers of acute asthma episodes - often called "asthma attacks" - has developed significantly in recent years, and techniques for managing asthma over the long term have also advanced. Yet the number of people who suffer from asthma continues to grow, and we still don't know what causes the condition to develop in the first place.

In a recent study, my coauthors and I used an unexpected exposure to a major air pollution event - the Great London Smog of 1952 - to demonstrate that air pollution exposure in early life leads to higher incidence of asthma during both childhood and adulthood. While London's air is much cleaner today than it was 60 years ago, our findings have major implications for the many countries that continue to struggle with high levels of urban air pollution.

The Great Smog

The Great Smog took place in London over five days in early December 1952. During that time, a layer of warm air settled over the city, trapping colder air near ground level. The cold air drove Londoners to pile coal on their fires to keep warm, and the upper layer of warm air trapped the resulting smoke near the ground where it mixed with a heavy fog.

The smog that resulted was so thick in places that visibility was said to have fallen to 12 inches. Bus, airplane, taxi and other services were halted, and drivers who braved the roads were forced to rely on others to walk ahead of the vehicle, calling out instructions and warning pedestrians. More than 100,000 people were treated for pneumonia or bronchitis, hospital wards filled to overflowing

and morticians reported an inadequate supply of coffins in which to store the dead.

Ultimately, some 3,000 to 4,000 "extra" deaths - that is, deaths above the normal rates which are attributed to the abnormal conditions - occurred during the Great Smog. Approximately 8,000 more cardiac and respiratory deaths over the next several months have also been linked to the smog. The toll of the Great Smog was so large that it ultimately served as a major impetus for the passage of the 1956 and 1968 U.K. Clean Air Acts.

The link to asthma

Our paper examines long-term impacts of the Great Smog on people who were exposed very early in their lives. To do this, we used data collected as part of the English Longitudinal Study on Aging. First, we compared the increase in asthma rates among the cohort of London-born children exposed at early ages to the Great Smog to the asthma rates among London-born children in other age cohorts. This provides the impact of the Great Smog on the asthma rates of those living within London. We next compared this change in asthma rates to the difference in rates between the same age cohorts of children living outside of London at the time of the Great Smog.

This difference-in-differences approach controls for the higher rates of asthma that are generally prevalent among city-dwellers. It also accounts for any changes in asthma rates that occurred both within and outside the area affected by the Great Smog around the time of the event, such as general trends in asthma rates and diagnoses.

In our analysis, we found that people who were exposed to the Great Smog during the first year of life were four to five times more likely to develop asthma as a child and three times more likely to report asthma as an adult compared to baseline rates. We also found evidence suggesting that children who were exposed to the Great Smog in utero suffered twice the normal rate of childhood asthma. Our results indicate that early exposure to air pollution has significant long-term impacts on health, and contributes to the development of asthma.

Our approach treats the Great Smog as a natural experiment, allowing us to rule out many alternative explanations for observed increases in asthma rates. This framework reduces the range of factors that could be contributing to the increased rates of asthma among those exposed at early ages and allows us to convincingly link exposure to the Great Smog during the first year of life with higher incidences of asthma in both childhood and adulthood.

The importance of early exposures

While air pollution is known to trigger asthma attacks, neither short- nor long-term exposures have previously been linked so clearly to the initial development of the condition. By demonstrating the connection between early air pollution exposure and the later development of asthma, our findings fill an important gap in our understanding of the condition, and provide actionable information for doctors, policymakers and parents.

Our results suggest that reducing exposure to extreme air pollution events, especially among the young, may be an effective means of combating the initial development of asthma. By improving air quality and protecting young children from air pollution, policymakers and doctor/parent teams may be able to meaningfully reduce the likelihood of asthma in individual children and the incidence of asthma in the population as a whole.

Our findings also dramatically illustrate the long-term effects of air pollution exposure. While there is a strong consensus that exposure to air pollutionnegatively affects health, our work presents some of the first evidence that such exposure has lifelong consequences. The London Smog took place more than 60 years ago, but some of those that lived through it are still feeling its impacts today.
Urban air pollution today

Such long-term effects have ominous implications for the millions of people around the world who are exposed regularly to extreme air pollution. In a recent article, Douglas Dockery and Arden Pope - two of the foremost researchers on air pollution and health - noted that conditions during a 2013 air pollution event in Harbin, China were "remarkably similar to those from London during the 1952 Great Smog."

Unfortunately, such extreme air pollution is both a widespread and growing problem. Beijing suffered some of its worst recorded air pollution at the end of 2015. And for all of the attention that air quality in China has received since the Beijing Olympics, none of its cities even makes the list of the top 20 most polluted in the world. Much of the urban population in emerging Asia, the Middle East and Africa regularly face more extreme levels of air pollution. Our results suggest that the negative health impacts of these exposures will last for many years to come.

http://www.huffingtonpost.com/the-conversation-us/what-causes-asthma-clues_b_11198490.html

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***The editors reserve the right to decline submissions for any reason*.**

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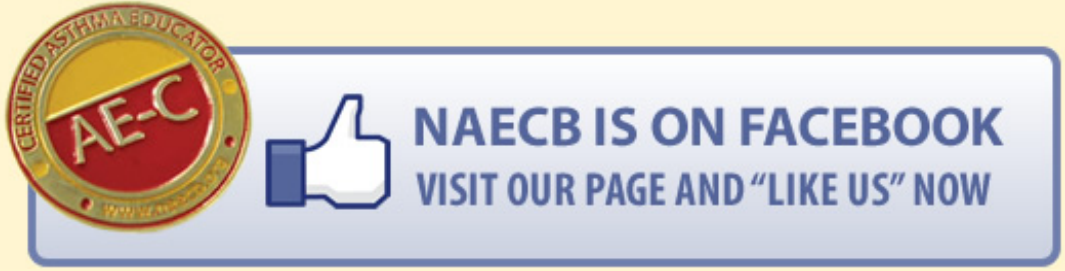

Promoting Excellence in Asthma Education

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