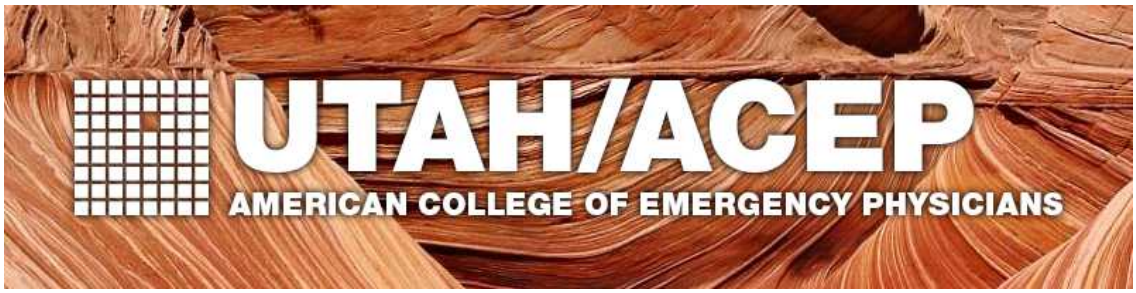
A Newsletter for the Members of the Utah Chapter

Summer 2017



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From the President:
It Is Time to Change Maintenance of Certification (MOC), and both ACEP and ABEM Want Your Feedback
John Dayton, MD, FACEP

The fight over Maintenance of Certification (MOC) has come to Emergency Medicine.

The American Board of Emergency Medicine (ABEM) recently requested that Utah ACEP support MOC, but also give feedback for ways to make it “more effective, less burdensome, and more relevant.” ACEP also recently joined forces with a multi-specialty effort to overhaul current MOC protocols.

Ideally, it should be nice to be part of the ABEM club. The rigors of qualification and staying in good standing should result in professional rewards. But how rigorous should this process be?

ABEM has reinforced the importance of recertification every 10 years, but has become a bit tepid regarding their MoC process. They are seeking specific feedback on what aspects of MoC are going well, and how you would recommend redesigning the MoC program.

ACEP, in collaboration with other specialty and state medical societyies, sent a letter to the American Board of Medical Specialties (ABMS) to follow up on the 2017 American Medical Association House of Delegates. During that meeting, resolutions addressed concerns of MOC, and the following wording was approved:

> *"MOC should not be mandated for licensure, credentialing, re-credentialing, privileging, reimbursement, network participation, employment or insurance panel participation."*

However, initial concerns regarding data and costs were not adopted.

ACEP is one of the 33 Medical Specialty Societies and 41 State Medical Societies that has added their voice of concern over the the following aspects of MOC:

Exorbitant costs of high stakes exams
Value of a summative exam vs. lifelong learning
Exorbitant costs of MOC
Lack of independent data validating that MOC improves quality/patient care
Duplication of efforts due to additional government requirements (MACRA) and specialty requirements (CME hours)
MOC as a contributor to physician burnout
MOC's current focus on policing vs. initial goal of physician improvement
Limiting professional self-regulation
Lack of transparent communication regarding finances and processes from certifying boards

What does this mean for you? Now is the time to address this issue through Utah ACEP and the UMA. Please send your feedback related to making MOC "more effective, less burdensome, and more relevant" to me at **drdayton@gmail.com**. The Utah ACEP Board will compile this information and send it to both National ACEP and to ABEM.

Utah Medical Association Introduction!
Brian Oliver, MD
Candidate for President of the Utah Medical Association

"Hello, I am Brian Oliver. I was asked to run for president of UMA and am delighted and humbled by the opportunity.

During residency, one of my mentors taught me that, “if you take care of the patient, everything else takes care of itself.” I think, many years ago, that statement was probably true. Over the last 5-10 years, the maxim of putting the patient first, has been overwhelmed by government, and corporate bureaucracy, and by insurance and health system profits. The patient-doctor relationship is almost an afterthought in current hospital and government administration and regulation. I believe that quality patient care is in peril due to large economic and regulatory forces. I further believe that only physicians can put patient care back at the center of the health care discussion and rancorous debate. We must advocate for our profession and our patients with the goal of keeping as many people as possible in good health. As an emergency physician, I touch most of the other specialties, and I have some insight into the profoundly difficult job all physicians share. I think I can be an advocate for the practice of medicine, and for the physician patient relationship as the center of the healthcare marketplace. "

Thanks,
Brian Oliver, MD

Utah Physicians Working to Clean Our Air
Howie Garber, MD

During winter inversions, the air quality along the Wasatch front including Ogden, Salt Lake City, Orem-Provo, and Logan ranks among the top 25 worst cities in the U.S. On some days the Wasatch front can have the worst air quality in the nation. This air pollution poses a significant threat to our health both in terms of acute and chronic illnesses and mortality. Estimates are that current air pollution levels shortens our lives by about two years. Compare this to smoking a pack of cigarettes a day, which shortens one’s life by 8 years.

Much of what we know about particulate air pollution and health started with Dr. Arden Pope, a BYU professor, whose pioneer research in the 1980s showed a strong correlation between particulate air pollution and hospital admissions for COPD, asthma, and pneumonia at Utah Valley Hospitals. The Geneva Steel Mill in Orem, Utah was shut down temporarily. Dr. Pope compiled hospital admissions data for the time before, during, and after the temporary closing of the mill. During the winter months when the Geneva steel mill was open, large particle pollution (PM10 levels) were nearly double the levels experienced during the winter months

when the mill was closed. From the *American Journal of Public Health* 1989;79:623-628, Children's hospital admissions were two to three times higher during the winters when the mill was open compared to when it was closed. Regression analysis revealed that PM10 levels were strongly correlated with hospital admissions for adults and children.

Many subsequent articles were published by Dr. Pope in the NEJM, Circulation, and JAMA. There were landmark studies in multiple cities showing that mortality was strongly correlated with particulate air pollution. Furthermore, mortality was reduced in these cities as air pollution was reduced.

Air pollution is composed of small particles, (PM-2.5), coarse particles (PM-10), Ozone, oxides of nitrogen and sulfur and toxic metals such as mercury and lead. The remainder of this article will focus on our current knowledge of fine particulate air pollution and what we as ER physicians should know.

Fine particle pollution or PM2.5 describes particulate matter that is 2.5 microns in diameter and smaller - 1/30th the diameter of a human hair. These PM2.5 particles are small enough to pass deep into the lungs. Much of our PM2.5 pollution comes from trucks, buses, automobiles, refineries and coal fired power plants. Recently a University of Utah researcher, Kerry Kelly found that wood smoke can contribute over 20% to the PM2.5 pollution. PM2.5 from wood smoke may be the worst kind, in part because it is highly concentrated with dangerous compounds like heavy metals, formaldehyde, dioxins and polycyclic aromatic hydrocarbons. The EPA has estimated that for an equal volume of particulate matter, the potential to cause cancer is 12 times greater for wood smoke than for secondhand cigarette smoke. If one of your neighbors is burning wood, this can account for locally higher concentrations of particulates. Particulate air pollution is worst during winter temperature inversions. For cities over 50,000, The EPA has set a 24-hour standard for PM2.5 at 35 micrograms per cubic meter. The annual EPA standard is 15 micrograms per cubic meter. Cities must be below these number to comply with EPA laws. During typical days of winter air pollution along the Wasatch front, the PM2.5 can reach 30-80mcg/m3. Concentrations of PM2.5, PM10, Ozone, and Carbon Monoxide are monitored hourly at sites in Salt Lake, Ogden, Provo, St George and Logan. The public can monitor these levels hourly at **http://www.airquality.utah.gov/slc-currentconditions.html**. From my experience, you can't predict the air quality by looking across the valley.

Salt Lake, Ogden and Provo are non-attainment areas for PM10. EPA designated "non-attainment areas" for PM2.5 include Provo, Logan, and Salt Lake City which includes parts of Weber, Box Elder and Toole Counties. For several years Utah has been unable to come up with a plan that will allow compliance with EPA standards.

Short term elevated particulate exposures can cause inflammation and contributes to complications of atherosclerosis by increasing the risk of plaque rupture, thrombosis, and precipitation of acute ischemic events. Retinal photography has shown that residing in regions with higher air pollution concentrations and experiencing daily increases in air pollution were each associated with narrower retinal arteriolar diameters in older individuals.

A very convincing study in *Circulation* (2006;114:2443- 2448) shows a linear relationship between acute cardiac ischemic events and PM2.5. The study conducted over 8 years along the Wasatch Front looked at ischemic events in a population of 12,865 patients who had a history of coronary catheterization. The study showed that days with PM2.5 increases of 10ug/m3 resulted in a 4.5% increased risk of having an acute coronary event. (unstable angina or MI) The results were linear so that on a smoggy day with a level of PM2.5 of 60 would have a 25% increase in heart attacks in this susceptible population. Similar results have been observed in a study of emergency hospitalization for MI in 21 U.S. cities.

With regard to long term PM2.5 exposure, a national study of 65,000 post-menopausal women (NEJM Volume 356:511-513, Feb 1,2007) conducted over 4 years found that a 10ug/m3 rise in chronic PM2.5 exposure resulted in a 24% increase in the risk of cardiovascular events, a 76% increase in the risk of death from heart disease, and a 35% increase in the risk from stroke.

Despite EPA standards intended to protect our health, there is no safe amount of air pollution. This is convincingly demonstrated in a 2017 NEJM article June 29, 2017 vol. 376 no. 26. The study constructed an open cohort of all Medicare beneficiaries (60,925,443 persons) in the continental United States from the years 2000 through 2012, with 460,310,521 person-years of follow-up. Increases of 10 μg per cubic meter in PM2.5 were associated with increases in all-cause mortality of 7.3%. When the analysis was restricted to person-years with chronic exposure to PM2.5 of less than 12 μg per cubic meter (Green, Healthy days according to current EPA standards) the same increases in PM2.5 were associated with increases in the risk of death of 13.6%. The limits that the EPA sets are constrained by politics, the demands of industry, and our needs to drive, and burn fossil fuels.

Given the known associated morbidity and mortality of air pollution, significant benefit would result if Utah physicians were aware of daily pollution levels and forecasts and could advise patients with known risk factors. The question arises of how to protect oneself and our patients. The degree to which staying indoors can limit exposure is quite variable because buildings and homes are all different. There are surprisingly few studies comparing indoor and outdoor air. About 6 yrs ago, I purchased a HEPA portable filter for my home which I use on the 20-30 bad air particulate days in the winter. These may cost $300- $450.These filters don’t protect from

ozone exposure, but are quite helpful to improve air quality in one's home. One way to measure indoor pollution is to buy an inexpensive particulate monitor from **https://www.purpleair.com/**. This organization provides a wealth of nationwide information and is very useful in identifying local hotspots. (For example, just how bad is the air if you live near a freeway or if your neighbor is burning wood) Children are especially susceptible to air pollution and it has been shown that living close to freeways adversely affects lung development in children. Statistics from the Utah Dept of Health showed that in North Salt Lake and Woods Cross-16.2% of children less than 17 years old have asthma. This is in contrast to the normal prevalence of 5%. Common sense would seem to point to the nearby oil refineries and I-15.

It is difficult to make recommendations about when one should limit outdoor exercise because of high particulate levels. This type of information can never be obtained from medical trials. It is not ethical or appropriate to exercise people with coronary disease on bad air days and see if some have heart attacks. My recommendation is that susceptible individuals and those with multiple cardiac risk factors should limit prolonged outdoor activity when PM2.5 is over 25. When PM2.5 is Over 35, there should be no prolonged outdoor exertion by anyone. When you are exercising outdoors particularly biking, and particulates are high, Use an N -95Mask. The mask will filter 95% of particulates. The masks don't help with ozone. Another effect of particulate exposure most noticeable during exercise is to decrease heart rate variability and to diminish maximum heart rate.

It is important to note that the Utah Division of Air Quality (DAQ) issues its first warning at PM2.5 levels between 35 and 55 and states that at these levels, "those with respiratory or heart disease, the elderly and children should reduce prolonged or heavy exertion outdoors." Above PM 2.5 levels above 55, "everyone should reduce prolonged or heavy exertion". These recommendations are not adequately protective of people's health.

Ten years ago a small group of Utah physicians formed a non-profit organization, **Utah Physicians for a Healthy Environment**. We represent over 400 health care professionals and several thousand other members. What makes UPHE unique from the other air quality groups is that we don't hesitate to go after the industries that are the sources of pollution especially in court. To give you an idea of a few of UPHE many accomplishments:

With our allies, we argued before the Utah Supreme Court to stop the expansion of the Tesoro Refinery. We focused a national spotlight on the high rates of infant deaths in Vernal that resulted in a story in Newsweek and a feature story in Rolling Stone magazine. Stericycle is one of the U.S.'s largest medical waste facilities. UPHE was one of many organizations that called attention to the fact that they were violating their permit. As part of a settlement the company agreed to move to Tooele. Small cities don't have to comply with the same air quality

regulations. UPHE has attempted to reign in the Geneva Gravel Pit at the Point of the Mountain. UPHE helped to organize the largest anti-pollution protests in the history of the state, Jan. 2014, 2015, 2016, and 2017. UPHE needs financial support and more physicians to be involved with our group. We consider breathing clean air to be a basic human right; however it will only be achieved by demanding this of our elected officials and by changing our lifestyle.

There is some good news about air pollution. A NEJM article co-authored by Dr. Pope (Jan 22, 2009) looked at 50 U.S metro areas between the late 1970s and early 2000s. All 50 cities improved their air quality and the article concluded that improvements in air quality accounted for up to .8 years increased life expectancy. This occurred partly as a result of catalytic converters in vehicles, low sulfur diesel, Unleaded gasoline, and more fuel-efficient vehicles. The point is that environmental activism by caring individuals has resulted in stricter environmental laws that have saved lives. Margaret Mead once said “Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it's the only thing that ever has.”

Please save the date of Sept 27 for Utah Physicians for a Healthy Environment (UPHE) 10th anniversary celebration at Cactus & Tropicals, 2735 S 2000 E, Salt Lake City, UT 84109. Doors open at 6:30 pm and the main program starts at 7 pm. Please see our **website** or additional details.

Dr. Howie Garber is a board-certified ER physician, a long time board member of UPHE, and a widely published nature photographer. **www.howiegarberimages.com**

ACEP assists DMAT teams as they prepare to respond to Hurricane Harvey

Rick Murray, EMT-P
Director, Dept of EMS and Disaster Preparedness

ACEP was pleased to furnish classroom space over the weekend of August 26 to DMAT teams from several states that were staged before they deployed. MN Chapter Executive Shari Augustine, who is a member of the MN DMAT, contacted ACEP staff to inquire of the possibility of using the ACEP Board Room for training for the various teams. Space was provided for training for over 240 members for DMAT teams and U. S. Public Health Service personnel. This

provided them the opportunity to receive some last-minute training and briefings before they deployed to various areas of the Texas coast that were impacted by Hurricane Harvey.

ACEP has a lot of **resources for the public** about preparing for and surviving disasters and they are being promoted to general public audiences.

Also, here are some **general talking points** about responding to disasters. They can helpful in talking with the news media.

National Disaster and Life Support Foundation

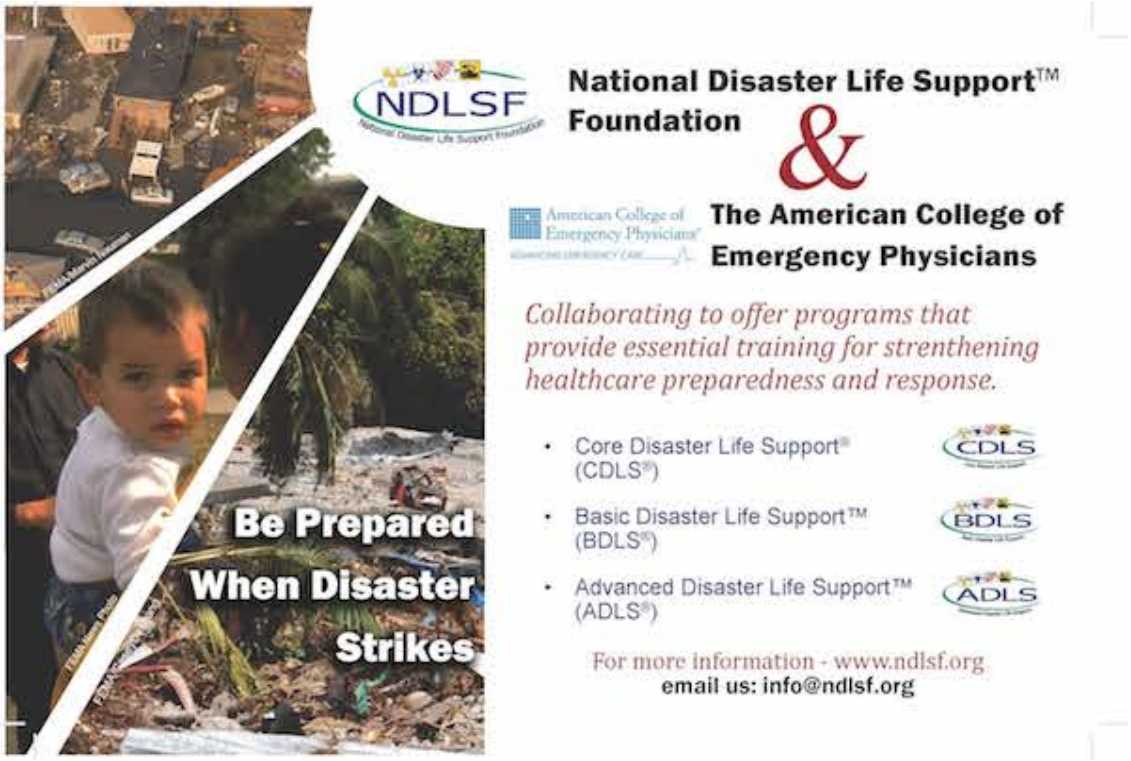
The National Disaster Life Support Foundation is very pleased to have partnered with the American College of Emergency Physicians (ACEP) to provide disaster medicine training and to further develop the NDLS education materials.

The NDLS program began in the late 1990's with a realization that there was a lack of standardized training for medical and nursing providers who may be responding to disasters. Individuals were medically trained within their specialty to the same National Standard, however disaster specific education was not included in the majority of medical and nursing curricula. Examples of the missing material included:

Scene safety
Standardized triage methodology
Incident Management
Identifying and requesting needed resources
What constitutes a disaster
Public Health impact of disasters

The NDLSF established an affiliated membership-based organization for the purpose of overseeing the development and revision of the curriculum. This organization is the National Disaster Life Support Education Consortium (NDLSEC).

The NDLSEC Annual Meeting will be held in conjunction with ACEP's 2017 Annual Scientific Assembly in Washington, D.C., October 29 – November 1, 2017.



White Coat Day on Capitol Hill at ACEP17

Decisions made by Congress influence the practice and the future of emergency medicine on a daily basis. Join your emergency physician colleagues in Washington, DC on November 1 and spread the word to legislators and their staff about the critical role of emergency physicians in our nation's health care delivery system. White Coat Day participants will be asked to attend a special advocacy training session prior to heading to Capitol Hill. Transportation will be provided and all participants will receive a customized schedule and materials to share in the meetings.

There is no fee to participate but advanced registration is required. Participants can sign-up as with their ACEP17 registration or may sign-up separately if not registered for ACEP17. Go to **White Coat Day** for more information or contact **Jeanne Slade** in the ACEP DC Office.

ACEP17 Wellness Activities and Resource Center Giveaways

Wellness & ACEP Resource Center
Sunday, October 29 - Tuesday, October 31
Location: Exhibit Hall

Stop by the wellness center in the ACEP Resource Center of the exhibit hall and discover tips from the experts to improve your well being daily. **View full list of activities and schedule.**

Product Giveaways
Held daily in the Resource Center

Sunday –PEER

PEER one-year membership
PEER Print Companion
Monday – CDEM

Trauma special edition
2- year print
One-year Residency Education Portal
Tuesday – ACEP eCME

My Residency Learning Portal
Trauma, Stroke, Cardiovascular bundle
Procedures and skills course
Featured guest on ACEP Frontline

Articles of Interest in *Annals of Emergency Medicine*

Sandy Schneider, MD, FACEP
ACEP Associate Executive Director, Practice, Policy and Academic Affairs

ACEP would like to provide you with very brief synopses of the latest articles in Annals of Emergency Medicine. Some of these have not appeared in print. These synopses are not meant to be thorough analyses of the articles, simply brief introductions. Before incorporating into your practice, you should read the entire articles and interpret them for your specific patient population. **Read More**

No Emergency Department is Immune from Violence

But you can be better prepared and reduce the risk of harm to your patients, your staff, and yourself. You can implement security measures, changes in your processes and policies, education and training, and attention to design details. Learn how with these new free resources from ACEP, all in one place, easy to find -- **Violence in the Emergency Department: Resources for a Safer Workplace**

Welcome New Members

Jessica Barlow
Barry R Gardner, DO
Tyler Hummel
Thomas W Lawyer
Garrett B Root
Wesley Williams

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