

Volume 2 Issue 42 – Spring 2015

NECOEM *Reporter*

HIGHLIGHTS:

[Medical Marijuana and the Workplace](#)

The discrepancy between federal and state laws regarding the legal use of marijuana has created many challenges for employers and occupational physicians alike. Robert Goldsmith, MD, the lead author of the ACOEM White Paper on Medical Marijuana, provides an overview of marijuana including its pharmacodynamics, impairment and guidance for occupational health practitioners having to deal with this complex issue.

[Complementary Alternative Medicine: Acupuncture. A Consideration for Your OEM Practice?](#)

In this piece, Susan Upham, MD, one of the editors of this newsletter, discusses the science of acupuncture and it's applications relevant to the field of occupational and environmental medicine (OEM). Occupational health practitioners looking to incorporate this technique in their practice or wondering about acupuncture in general will find this article very useful.

[Highlights of Wind Energy Seminar](#)

David Berube, MD, MPH, FACOEM, reports on the half-day medical conference/seminar held on September 13, 2014, at the campus of the New England Institute of Technology in Warwick, Rhode Island. The conference presentation slides can be accessed through NECOEM's website, www.necoem.org.

Other Highlights:

[NECOEM Officers](#)

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Upcoming Events!



SAVE THE DATE:
NECOEM and MaAOHN
Annual Conference
2015
December 3 and 4
“In the Trenches —
Tips, Tools and Pearls for the Occupational Health
Professional”

Sustainability and Health
Initiative for NetPositive
Enterprise (SHINE)
June 4-5, 2015
Radcliffe Campus, Cambridge
www.CHGEHarvard.org

Medical Marijuana and the Workplace

By Robert Goldsmith, MD, MPH

Occupational physicians are increasingly challenged by employer requests to develop guidelines for the safe use of medical marijuana among workers. This impetus is driven by the dynamic social landscape and emerging regulatory acceptability at the state level. Unfortunately, standard impairment guidelines developed to manage the use of neuroactive prescriptions, do not cleanly apply to marijuana. Use of the drug is associated with numerous variables, including potency, route of administration, frequency of use, tolerance, and the activity of each user's metabolic pathways. Because of the proliferation of medical marijuana use and the inherent difficulty predicting

impairment, the ACOEM Pharma and MRO sections undertook a literature review and analysis. This project resulted in a white paper that is now available on both section sites within the ACOEM web portal.

Marijuana has been touted as a medicinal agent for thousands of years. It's first recorded use in the U.S. dates to the mid-1800's, when physicians began to prescribe various compounds for treatment of inflamed skin, incontinence, venereal disease, chorea, epilepsy, anorexia nervosa, uterine atony, migraines, depression and a broad range of other ailments. Cannabis use increased until century's end, when the drug became associated with narcotics as an addictive social scourge. Beginning at that time, a series of local ordinances and state regulations restricted use. Key among those was the Marijuana Tax Act of 1937, which severely restricted commercial sales. In 1970, that law was replaced by the Comprehensive Drug Abuse Prevention and Control Act, which effectively outlawed the clinical use of marijuana on the federal level. Although federal prohibition remains unchanged to this day, two states have legalized recreational marijuana and almost 20 have passed provisions for physician authorization of the drug for therapeutic or palliative purposes. This tension between federal and state law has driven much of the discussion among employers and occupational physicians. Although federal lawsuits based on the Americans with Disabilities Act are unlikely to succeed, state actions, based on approved medical indications and embedded anti-discrimination clauses may have merit.

Critical to the occupational physician is an understanding of the pharmacodynamics of marijuana use in humans. Although multiple variables exist, two exert maximum influence on the drug's neurocognitive effects. *Drug potency* generally refers to the ratio of Δ^9 -tetrahydrocannabinol to cannabidiol (CBD). The former is primarily responsible for the neurologic effects of cannabis. Although breeders are able to manipulate this ratio, packaging claims cannot be relied on to consistently measure potency. In fact, the relative potency of illicit marijuana has been steadily increasing for the past decade. *Route of administration* is also a key consideration. Inhaled or vaporized cannabis has a rapid onset of action, which peaks within several hours. The pharmacokinetics of ingested marijuana varies with the food carrier. The drug is highly lipophilic and is absorbed more readily when mixed with or into a high fat substrate. Regardless of carrier, however, ingested marijuana has a slower onset and longer duration of action. Transdermal administration forms are also available. These products produce a significant and sustained high, although migration across the aqueous skin layer restricts net absorption. Very many studies, performed over the past several decades have confirmed marijuana's influence on reflexes, short-term memory, executive cognitive function, and risk aversion. Although the major effects clear within several hours, residual neurocognitive dysfunction can persist for up to two weeks in naïve users of high dose, high-potency cannabis. Thus, timing of use between work shifts cannot in and of itself guarantee safety, even when there is a long interval between use and return to work.

MRO considerations of marijuana use can be as complex as those for basic safety. It is clear that the

Washington State and Colorado impairment limit of 5ng/dl does not correlate with impairment. Still, the level is accepted and legally binding in those states, and may have practical value in program administration. For companies that prohibit any use of marijuana, detection by standard assay, using appropriate chain of custody procedures should be considered as positive. Companies that are required to adhere to federal drug prohibition and testing standards may not permit marijuana use under any circumstance.

The Pharma and MRO workgroups drafted a framework to assist occupational physicians with managing the issue of medical marijuana among workers. Among the recommendations was consideration of an ongoing prohibition for active workers. Although this could result in state court exposure, it is a reasonable and responsible approach to a potential workplace hazard. A second recommendation was the inclusion of an occupational physician in all discussions on medical marijuana policy. The group advised that employees suspected of intoxication with marijuana should be removed from the workplace immediately. For employers who elect to tolerate medical marijuana use, case-by-case determinations of workplace safety should be made. Included in the decision-making should be validation of the state legality of use, understanding of the anticipated dosing and route of administration, timing relative to shift, and safety sensitive job function elements. Neurocognitive fitness for duty testing should be considered to determine if workers using marijuana between shifts have effects that are measurably sustained into the workday. This testing should be repeated any time a change in potency, dose, route of administration or timing of use is reported. Finally, the workgroup strongly recommended ongoing research into the pharmacokinetics and safety profile of marijuana, toward the goal of eliminating associated risk.

The workgroup paper has been presented to ACOEM leadership. The larger group has taken on the task of reviewing the data, reformatting, and adapting for use by both occupational physicians and nurses. It is anticipated that their efforts will result in a published position paper within just the next several months.

Rob S. Goldsmith, MD, MPH, is the Executive Director, Corporate Employee Health, Novartis Pharmaceuticals Corporation, New Jersey. He is the lead author of the ACOEM White Paper on Medical Marijuana. The above article is a synopsis of the NECOEM Dinner Meeting presentation given by Dr. Goldsmith along with Maine attorney Peter Lowe and David Ciullo.



Complementary Alternative Medicine: Acupuncture. A Consideration for Your OEM Practice?

By Susan Upham, MD, MPH

Acupuncture is becoming a more popular complementary medicine option, gaining increased acceptance amongst medical professionals and the consumer, in light of our improving understanding of its physiological effects as well as its safety and efficacy in treating a variety of disorders. It can be used as an independent treatment or a supplementary treatment to common Western style medical care.

Acupuncture is an ancient practice, originating 3000 years ago. It has evolved into various styles over the years, such as Traditional Chinese and Japanese styles, as well as microsystem approaches such as Scalp, Ear and Korean Hand. It is based on the belief that equilibrium of the body correlates with health and this is controlled by the energy force in the body called the Qi. Qi flows along 14 major meridians and, when obstructed, contributes to illness. Acupuncture points on the meridians can be stimulated by fine needles (as well as other modalities, such as moxibustion) which relieves the obstructions to the flow of Qi, thereby enhancing a return to health and/or equilibrium. Other concepts apply to modern acupuncture practice but are beyond the scope of this article to review. The NIH National Center for Complementary and Integrative Health website, <https://nccih.nih.gov>, is an excellent resource for those who want to learn more.

Though traditional style acupuncture involves application of needles in various parts of the body, microsystem acupuncture approaches, such as on the ear or scalp, can be effective as well. For example, ear acupuncture is sometimes provided alone, or sometimes in combination with the whole body style. There are specific points or regions in the ear that treat various symptoms. The following is a photograph of the acupuncture needling of the ear which provided complete pain relief in the left hip of the subject.



Ear acupuncture to treat hip pain.

Research efforts on acupuncture, performed using Western standards, have improved our understanding of how it works in the body. Though results have been mixed, and there continues to be expert debate about its effectiveness, enough supportive evidence exists that many professionals feel it is a valid treatment to offer. Vickers AJ et al (*Acupuncture for chronic pain: individual patient data meta-analysis*, Arch Intern Med. Oct 22, 2012; 172 (19): 1444-1453) assessed the effectiveness of acupuncture for chronic pain in a meta-analysis which used data from 29 of 31 eligible trials and analyzed 17,922 patients. They found statistically significant differences (all $p < 0.001$) in pain level for acupuncture versus sham controls or no treatment for back and neck pain, osteoarthritis, and chronic headache. They concluded that the findings suggested that acupuncture was more effective than placebo and as such it is a reasonable treatment option to offer for chronic pain.

Gira Patel et al. (Med Clin N Am 91 (2007): 141-167) provided a summary of the scientific evidence of the effectiveness of acupuncture. Studies of its impact on the central nervous system have shown multiple influences on the centers that control pain, such as the release of endorphins and enkephalins. In human and animal models of acute pain, the analgesia provided by acupuncture was found to be abolished by opioid receptor antagonism. Functional magnetic resonance imaging (fMRI) provides a fascinating glimpse of brain function in the painful state. fMRI of the brain during an acupuncture treatment has revealed “bilateral neural modulation of cortical and subcortical structures, causing a signal decrease in the limbic region and other subcortical areas.” It is as if the pain signal switch is turned to the off position when acupuncture is provided. They noted that high quality research using Western medical standards supported the effectiveness of acupuncture for fibromyalgia, shoulder pain, epicondylitis, headache, neck pain, low back pain and knee pain, all common conditions in the occupational medicine practice.

Ms. Patel was interviewed recently regarding her professional experiences working as an acupuncturist with physicians and in multidisciplinary clinics. She has been practicing acupuncture since 1999 and currently teaches

acupuncture to physicians with the International Structural Acupuncture Course for Physicians sponsored by Harvard Medical School. She has worked as a staff acupuncturist at Beth Israel Hospital’s Arnold Pain Clinic and the Osher Institute. She noted that even some of the worst chronic pain cases achieve symptom improvement; the component of acupuncture that treats emotional problems was particularly helpful in these cases. Acupuncture offered prior to epidural injections seemed to be followed by better clinical results than epidural injections themselves; some patients were able to avoid neurosurgical procedures because of adequate symptom control. She achieved enough clinical success that she was often referred cases by neurosurgeons prior to their considering surgical intervention.



Gira Patel, L.Ac. teaching acupuncture to physicians at the International Structural Acupuncture Course for Physicians. 2015.

While at the Osher Institute, Ms. Patel worked on a multidisciplinary clinical panel (including primary care, chiropractic and acupuncture) which studied whether their approach would help the patient with low back injuries return to work faster. The positive results of improved low back pain and reduced days out of work were instrumental in promoting the development of the Osher Clinical Center at Brigham and Women's Hospital in Boston. This was the first integrative medicine center to be developed at a major US teaching hospital. She thinks that "physicians should see acupuncture as a complement to Western Medicine. Skeptical doctors who see that it helps their patients become more open to using it in their practice."

Acupuncture can be effectively utilized in occupational medicine practices. Robert Naparstek, MD, FACOEM, now retired, incorporated acupuncture into his multidisciplinary occupational medicine clinic while at Good Samaritan Medical Center in Brockton, MA for 17 years. He also advocated for workers' compensation insurance coverage for acupuncture in the State of Massachusetts while on the Health Care Services Board. Upon presentation of the scientific evidence, he convinced the Worker's Compensation Board to approve coverage for this service. That being said, getting approval for insurance coverage for individual cases in his practice was a challenge. He estimates that coverage approval was only obtained about 50% of the time.

Dr. Naparstek's clinic employed an acupuncturist to provide care for both acute and chronic conditions. From a business perspective, acupuncture in his clinic was financially feasible and profitable. Education of staff and management was necessary but well accepted. Their clinic included

the practice of moxibustion, which causes strong odors and therefore is sometimes prohibited by medical clinics. This was performed without incident in a specially ventilated room. Regarding treatment safety, Dr. Naparstek saw no negative outcomes, but occasionally there was no benefit. Acupuncture was ordered on an acute basis (i.e. within 1-2 weeks of injury) for a variety of musculoskeletal disorders, such as low back pain and Achilles tendinitis, as well as acute occupational asthma, noting improvements in PFTs post treatment. In the chronic pain setting, he found improvements in symptom levels, even when a strong psychological component was present. He particularly noted excellent responses in two complex regional pain syndrome (CRPS) cases – one involving an ankle injury and another involving an upper extremity injury.

Jane Glass, DO, PM&R specialist at Bayside Employee Health Center, in Portland, Maine is a graduate of the Harvard International Structural Acupuncture Course for Physicians and has been performing hands-on Japanese style acupuncture for approximately five years. “Acupuncture is safe in trained hands and well tolerated, with minimal side effects. I discuss options for care with patients and often include it where appropriate. I find it valuable in patients where other modalities have not been adequately effective or when the patient is averse to other treatments.” Most of her work involves subacute or chronic cases. She has particularly found acupuncture to be beneficial in the treatment of concussion related nausea, dizziness and headache, as well as shoulder complaints and arthritis. Anecdotally, she has found that acupuncture needling of trigger points to be extremely effective and better tolerated than classic trigger point injections, so this is now her preferred approach. She has not found acupuncture effective in patients already on opiates. (Many acupuncturists will advise a patient to stop the medication for 24 hours or more prior to initiating treatments because of this problem.) Insurance coverage for the services has not been difficult to obtain, though every case is pre-approved for 5 or 10 visits prior to initiating the treatment.

Case Report. Acupuncture approaches to severe chronic pain, such as CRPS, have been developed. In a case that reflects the effects of acupuncture on the autonomic nervous system, Dr. Glass treated a worker who experienced CRPS-like symptoms after thumb and index finger lacerations complicated by infection. The patient developed worsening pain over a 3 week period after the initial injury. In spite of typical treatment with antibiotics, work restrictions and splinting, by 6 weeks the fingers became discolored, swollen, stiff and cool and the patient developed allodynia. By 12 weeks there was a distinct shine to the skin of the fingers. CRPS was suspected by the hand orthopedist and Dr. Glass but a 3 phase bone scan was negative. There was no response to occupational therapy. At 16 weeks post injury significant problems continued, including limited use of the thumb and index finger, so a trial of acupuncture was initiated. By the 4th weekly acupuncture treatment there was marked improvement with better range of motion and resolution of skin changes, allodynia and swelling. By 22 weeks and at the time of the 6th acupuncture treatment, the patient was able to return to regular duty, much improved. There were 4 more acupuncture treatments. At 36 weeks, the patient developed a flare up of pain, stiffness and allodynia in the same index finger, seemingly related to grip strength exercises. These exercises were discontinued and the patient was discharged

from care much improved 2 weeks later. A remote follow-up 8 months later revealed that the patient had minor episodic discomfort of the fingers, but remained at regular duty; the hand was fully functional.

Consider the following issues when deciding whether to incorporate acupuncture into your practice.

- Educate yourself and your patients about the potential benefits of this treatment. Before you refer a patient, make sure they have an open attitude towards it. Be aware of the strong negative attitudes in some patients that may interfere with their successful response to it.
- Know your acupuncturist. Your provider needs to complement your treatment, not conflict with it.
- If you want to perform acupuncture, you will need to be trained. This is costly and extremely time consuming. Before you commit to training, explore with your employer whether they will support this service. There are many acupuncture course graduates who have not been able to practice due to lack of approval to offer this service.
- Investigate whether the worker's compensation insurers are willing to provide coverage. If there is a strong bias against this, provide education. It may cause them to change their mind. If they agree, obtain preapproval before you start the treatment.
- Understand that one of the most amazing features of acupuncture is its safety. In trained hands the risks beyond occasional soreness and rare bruising at the acupuncture site is extremely low.
- Acupuncture can be used to treat a variety of conditions; examples of disorders commonly seen in the OEM practice for which it can be useful include the following: lumbar or cervical pain (strain, osteoarthritis, herniated disc, or post-surgical), concussion symptoms (e.g. nausea, vertigo, cognitive changes), headache, tendinitis (e.g. epicondylitis), scar pain (e.g. status post herniorrhaphy, laminectomy, laceration), CRPS, injuries of any joint, trigger points and trapezius strain. The patient who is limited in their ability to use medication for pain control (such as with pregnancy, allergy, underlying liver/kidney disorder, etc.) or who are unwilling to use medication for philosophical reasons may be good candidates as well.



Anatomy is marked on a patient to aid acupuncture training

Dr. Susan Upham, MD, MPH is a board certified specialist in occupational medicine and a graduate of the Harvard International Structural Acupuncture Course. She is co-director of the Bayside Employee Health Clinic in Portland, Maine. We are pleased that Dr. Upham has recently joined us on the editorial staff of the NECOEM Reporter.

President's Column

When I moved to New England in 2006 after leaving active duty service in the U.S. Navy, I promptly joined NECOEM and now, with great enthusiasm I look forward to serving our organization as President of NECOEM. On behalf of the Board of Directors and our membership, I would like to both thank and honor Phil Lerner for his recent contributions as NECOEM President from 2012-2014 and acknowledge NECOEM's Executive Director, Dianne Plantamura for her continued superb management and coordination of NECOEM's operations throughout the year. In addition, I would like to acknowledge both the out-going and in-coming chairs of our annual conference planning committee, Matt Lundquist, MD, MPH and Abhijay Karandikar, MD, MPH, FACOEM. Dr. Lundquist led the planning committee the past two years with fantastic success resulting in two of the best conferences in our recent history. With great energy, creativity, and enthusiasm, Dr. Karandikar has launched the planning committee in its planning cycle for this year's annual conference. Please be proactive in reaching out to Dr. Karandikar if you have ideas to share related to the annual conference planning committee's activities.

As I assume the role as NECOEM President, I have several goals and objectives aligned with our mission that I plan to work toward with our Board of Directors, Executive Director, membership and community that is the NECOEM family.

The following are objectives that we will be working on:

- 1. Impact:** We must maintain the strong, respected educational impact we have with our annual conference and other meetings. The strategy to achieve this objective continues to be a balance of "cutting edge, innovative" topics combined with practical and useful topics aligned with ACOEM's core competencies for Occupational and Environmental Medicine providers.

2. Use of Technology: Increase our web presence and improve our use of technologies to achieve our goals of education, membership, outreach, public policy guidance, and promotion of Occupational and Environmental Medicine.

3. Membership & Outreach: We must continue to attract and welcome new members, keep our long-time members involved, and extend our reach to individuals and groups that make up the rich ecosystem of Occupational & Environmental Medicine. This means that we must continue to attract nurses, nurse practitioners, physician assistants, ergonomists, HR professionals, researchers, and attorneys to our events.

4. Enhance NECOEM's collaboration and association with ACOEM: This objective is extending and carrying forward one of Phil Lerner's goals from his presidency tenure. Activities supporting this goal include being more proactive with NECOEM and OEM's role in the dynamic health care environment and leveraging our ACOEM House of Delegates presence to promote our mission.

I am confident that with these objectives and continued input from the Board of Directors and our membership, we will continue to optimize the health and safety of workers and workplace environments through delivering the highest quality continuing education, encouraging debate and research, and promoting the practice and specialty of Occupational & Environmental Medicine.

Parting thought: Please get involved with NECOEM—this is your organization. If you are unsure how to get involved, please contact Dianne Plantamura, myself, or one of the Board of Directors. My gratitude goes out to the Board of Directors and our membership for the opportunity to serve as your President.

Respectfully,

Philip Parks, MD, MPH, FACOEM
NECOEM President, December 2014 – Present



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NECOEM's Mission: To support the optimal health and safety of workers and workplace environments through educating our members and other health care professionals, encouraging research, workplace safety, and high quality practice, guiding public policy, and promoting the specialty of Occupational and Environmental Medicine.

SEMINAR HIGHLIGHTS: WIND ENERGY, AN OCCUPATIONAL AND ENVIRONMENTAL MEDICINE REVIEW



By David Berube, MD, MPH , FACOEM

On September 13, 2014, NECOEM held a half-day medical conference to review the current literature on wind energy. Conference attendees included NECOEM members and guests, engineers, industrial hygienists, and representatives from state departments of public health. The meeting was held on the campus of the New England Institute of Technology in Warwick, Rhode Island. Attendees also visited the institute's active wind turbine.

With increasing numbers of land based wind turbines in New England, and the planned future development of off shore wind turbines in the coastal waters of New England, physician education on wind turbines and health is prudent. Does scientific evidence demonstrate wind turbine health effects? Do wind turbines cause psychological stress, annoyance, and sleep disturbance? Does infrasound from wind turbines cause adverse health effects? Are there known risks for employees who build and service wind turbines on land and at sea, and if so, what are the recommended employee physical evaluation, monitoring, and safety standards?

The initial presenter was **James Manwell, PhD**, Director of the Wind Energy Center at the University of Massachusetts. Dr. Manwell is a Professor of Mechanical and Industrial Engineering and member of the Committee that developed offshore wind turbine international design standards. Dr. Manwell explained mechanical and operational principles of land and sea based wind turbines. Areas covered included aerodynamics, rotor and blade configurations, as well as a review of components such as the gearbox, brakes, and generator. Principles of wind turbine sound emission and propagation were reviewed, as well as methods to mitigate sound.

The second presenter was **Stephen Barrett**, Director of Clean Energy at Harris Miller Miller & Hanson Inc. in Burlington, MA, and Vice President of Minuteman Wind, LLC. Mr. Barrett reviewed principles of planning, construction, and operation of land based wind turbines.

The third presenter was **Robert McCunney, MD, MPH, MS**. Dr. McCunney is board certified in Occupational and Environmental Medicine and has a medical practice at Brigham and Women's Hospital in Massachusetts, is on the faculty at Harvard Medical School, and is a research scientist at the Massachusetts Institute of Technology. Dr. McCunney was a member of the American Wind Energy Association and the Canadian Wind Energy Association's Wind Turbine Sound and Health Effects Expert Review Panel. Dr. McCunney summarized the peer reviewed medical literature

regarding wind turbines and health. He reported that the scientific peer reviewed medical literature has not demonstrated any clear or consistent association between wind turbine noise and any reported disease or indicator of harm to human health.

The next two presenters were **Soeren Baek**, Rest of the World Offshore Employee Health and Safety Manager for Siemens Wind Power in Denmark, and **Jan Rasmussen**, Head of Environmental Health and Safety Offshore for Siemens Wind Power in Denmark. They reviewed potential exposures and risks to employees who build and perform maintenance on offshore wind turbines. Topics reviewed included noise, vibration, temperature, diving in cold water, wind, rescue, working in remote sites, psychosocial stressors, physical fitness and general health. Fitness for duty medical standards, training requirements, and safety measures and equipment were discussed. Factors such as offshore first aid, helicopter hoist training, helicopter underwater escape training, and offshore safety and emergency response training were also reviewed.

The final presenter was **Michael Petit, MS**, Associate Professor and Department Chair of the Electrical Technology with Renewable Energy Systems program at the New England Institute of Technology. Mr. Petit reviewed the construction and operation of the Wind Turbine at the New England Institute of Technology and led the tour of the turbine.

I invite you to review the presentation slides for the conference in the resource library link on the NECOEM website www.necoem.org .

Dr. Berube is a member of the NECOEM Board of Directors and works on the NECOEM Education Committee. He is Regional Medical Director for the Liberty Mutual Group, based in Hartford, CT.

*For a differing view on windpower, see NECOEM Reporter archives:
www.necoem.org/newsletter_archive2.html*

NECOEM Member Spotlight: Yale OEM Fellows

Dr. Gretchen Guzek is a fellow in Yale's Occupational and Environmental Medicine Program. Born and raised in Scranton, Pennsylvania, she completed her residency in Internal Medicine-Primary Care at Yale-New Haven Hospital in June 2014. She earned her MD and MPH with a concentration in Environmental Health Science at New York Medical College where she learned about the fabulous field of Occupational and Environmental Medicine. She has had educational, research, teaching, and work experiences at hospitals and universities in New York and Pennsylvania, at the Pennsylvania Department of Environmental Protection, and at the Centers for Disease Control and Prevention. She holds a bachelor's degree in Natural Resources from Cornell University and a master's degree in Physiology from Georgetown University. Her interests include toxicology, public health policy, resource allocation, and production optimization.



Dr. Khaled Altassan was born in Jeddah, Saudi Arabia. It has been there that he has lived most of his life and attended medical school. He graduated with an MBBS Degree (equivalent to MD) from King Abdulaziz University. He came to Chicago in 2009 and completed his United States Medical License Examinations. He completed the Family Medicine Residency at Baylor College of Medicine in Houston, Texas. Currently, he is a board certified Family Physician doing his MPH and fellowship in Occupational and Environmental Medicine at Yale University. Upon completion of the fellowship and passing the board exam, his plan is to go back temporarily to Saudi Arabia to work as an Occupational and Environmental Medicine Faculty member at King Abdulaziz University. He is also planning to start a private Occupational Medicine/Urgent Care clinic in Dubai, a city that is growing fast and is in need of many preventive and work-related health care services. Dr. Altassan has great interest in health promotion and injury prevention of the working population.



**Answer to last issue's "Who Is It?":
Sir Austin Bradford Hill.**



Congratulations to Raj Ahsan, MD, and Aren A. Giske, MD, MOH, for sending the correct answer!

Sir Austin Bradford Hill was an English epidemiologist and statistician. He is known to have pioneered the randomized clinical trial. His work with physiologist Sir Richard Doll demonstrated the connection between cigarette smoking and lung cancer. Hill is widely known for pioneering the "Bradford Hill criteria" for determining causal associations. Many of us use the Hill criteria for making decisions on causality on a regular basis.

This is the second in the series of trivia, facts, figures, etc. related to the field of occupational medicine. If you have any such interesting or fun-filled material, please e-mail it to the associate editor at dr_abhik@yahoo.com. All material should be related to the specialty of occupational and environmental medicine and have an educational, inspirational, historic or other relevant value.

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NECOEM at the above address. The editor reserves the right to edit letters for publication purposes.*