

AOHC 2022 CME Information

The 2022 American Occupational Health Conference (AOHC) is the American College of Occupational and Environmental Medicine's (ACOEM) 106th annual meeting.

AOHC serves two fundamental purposes:

- 1. It is the premier professional meeting for physicians and other health professionals who have an interest in the fields of occupational and environmental medicine (OEM).
- 2. It is the annual membership meeting for ACOEM's members.

Educational Needs and Objectives

The ACOEM CME Mission is to provide Occupational and Environmental Medicine (OEM) physicians and other professionals who promote the optimal health and safety of workers, workplaces and environments with the <u>competencies</u> needed to prevent work-related injury and illness and to optimize treatment outcome.

Upon completion of AOHC 2022, the learner should be able to:

- Evaluate current research;
- Analyze emerging issues in OEM; and
- Exemplify effectiveness and efficiency in carrying out professional responsibilities.

Target Audience

AOHC is designed for physicians who specialize in or have an interest in OEM as well as for nonphysicians, such as industrial hygienists, nurses, safety professionals, and environmental health specialists who are involved in the field. AOHC offers a variety of educational activities for participants new to OEM as well as for the experienced professional.

ACCME Accreditation and Credit Designation Statements

The American College of Occupational and Environmental Medicine is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

The American College of Occupational and Environmental Medicine designates this live activity for a maximum of 26.5 *AMA PRA Category 1 Credits*[™]. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Disclaimer

The ideas represented in presentations at AOHC 2022 do not necessarily reflect ACOEM positions. ACOEM disclaims responsibility or liability for all products, services, or information presented at AOHC 2022. ACOEM does not endorse any product or service exhibited, nor necessarily support the content contained in the educational offerings.



9:00:00 AM - 10:30:00 AM

101 Alcohol, Tobacco, Obesity and Sleep (ATOS): Occupational health surveillance and intervention for the major determinants of public health at workplace and treatment of insomnia

Noncommunicable diseases are the most important problems for Public Health and OH, causing 41 million premature deaths globally (71%), every year (WHO 2018). These include cardiovascular diseases, neoplasms, diabetes and chronic respiratory diseases, having as its main risk factors (concerning avoidable risk behaviors) hazardous ALCOHOL consumption, TOBACCO consumption, OBESITY, sedentary lifestyle and SLEEP disorders. These important determinants of health are related with avoidable risk behaviors, and produce mobility and mortality in workers. Also induce worse prognostic in occupational diseases. How do we control these risks behavioral? Injured workers often complain of poor sleep in conjunction with their injuries. Severity of insomnia is often underestimated and result in delayed recovery and development of comorbid disabling conditions. Implementing evidence-based, simple and reliable assessment tools to identify presence and severity of sleep disturbance, within the biopsychosocial model provide safe and effective treatment of insomnia (pharmacological and nonpharmacological) or making appropriate referrals.

Learning Objectives

- Recognize the importance of alcohol, tobacco, obesity and sleep in workers and their associations with others professional and biopsychosocial risk factors. To discuss the mechanisms of alcohol, tobacco, obesity and sleep disturbance impact on the functioning of various body systems;
- Reflect on the importance of Primary prevention in universal medical surveillance in Occupational Health for alcohol, tobacco, obesity and sleep.Contribute to validated, measurable and useful epidemiological indicators for comparative studies in Occupational Health and Public Health determinants.
- Provide evidence-based safe and effective treatment for insomnia and/or appropriate specialty referrals.- the importance of implementing screening tools to identify and rate the severity of insomnia and utilize the biopsychosocial model to identify the etiology of insomnia;

Faculty

Vladimir Bokarius, MD, PhD, QME Jorge B. Dias, MD, MSc Chunbai Zhang, MD, MPH, CIME, MRO



9:00:00 AM - 10:30:00 AM

102 An Osteopathic Approach to Low Back Pain: Introduction to the Fascial Distortion Model and Review of Clinical Guidelines Guidelines

Low Back Pain (LBP) is a common and significant affliction of the human condition. Its cost to the individual, economy, and society are measured in billions of dollars. Clinical Guidelines for the management of low back pain were updated in 2012. While considered a self-limiting condition, a significant number of patients undergo expensive diagnostic procedures, alternative therapies, medical and surgical interventions, and many go on to develop chronic pain with partial or total disability. Published guidelines identify manual therapies as proven effective in the management of acute LBP. There are numerous manual therapies utilized to treat low back pain. The Fascial Distortion Model is a patient-centered modality, useful to diagnose and treat acute and chronic low back pain and other painful musculoskeletal conditions. After reviewing LBP and Clinical Guidelines, a case presentation will be used to introduce the Fascial Distortion Model as an effective osteopathic treatment modality for LBP.

Learning Objectives

- Evaluate Acute Low Back Pain in a primary care setting in a consistent manner
- Review the current Clinical Practice Guidelines for management of Acute Low Back Pain
- Treat common causes of Acute (and chronic) Low Back Pain with Osteopathic Manipulation in the Fascial Distortion Model

Faculty Byron Perkins, DO



9:00:00 AM - 10:30:00 AM

103 Resilience - Preventing Burnout and Enhancing Performance during Challenging Times

In this fun, highly interactive session, participants will be led through a process of self- assessment and deeper self-understanding. After reviewing basic definitions of and concepts of resilience, an insightful framework will be presented for assessing feelings and moods and how they relate to quality and quantity of energy. Participants will identify where they currently reside on a grid that ranges from survival and burnout to recharging and high performance. Participants will identify their current practices for maintaining resilience, share strategies with each other in small breakout groups. They will learn new tools, allowing them to leave with a plan of action for enhancing resilience and sustaining high performance.

Learning Objectives

- Place themselves on a spectrum of survival, burnout, recharging and high performance through self-assessment exercise
- Assess current methods they use to increase resilience in four key areas
- Identify additional tools, behaviors and skills they can adopt to increase resilience

Faculty

Kent W. Peterson, MD, FACOEM



9:00:00 AM - 10:30:00 AM

104 A Global Perspective on Harmonizing an Environment of Well-being: From Pandemic Response to Population Health Management

A paradigm shift of what the built environment encompasses has forever been impacted by the pandemic. Come join a panel of Global Corporate Medicine experts discuss how a company's response to COVID spawned innovative ways of approaching Occupational and Environmental Medicine and expanded the scope of Occupational Health, Population Health Management and Holistic Well-being initiatives. Shared experiences and Data collection and analysis will be presented to showcase business continuity planning and workforce availability. Design and implementation of data system for tracking will be discussed and how health information truly impact the business and future design of the work environment.

Learning Objectives

- Describe what the built environment entails and how it affects the design of well-being initiatives
- Identify how the response to the COVID-19 Pandemic expanded the reach of Occupational and Environmental Medicine
- Identify Population Health Data Management Programs

Faculty

Anurag Apte, MD, MBA Julie McKibben, MD, MS, CPS/A, FACOEM Jorge A. Morales Camino, MD, MS, PhD, FACOEM Kenji Saito, MD, JD Richard Urbanek, MD



9:00:00 AM - 10:30:00 AM

105 Social Determinants of Health (SDOH): The Impact of the Job Title, the Injured Worker, and Employer-based Resources

Social Determinants of Health are a set of social, physical and environmental domains (e.g. housing, transportation, access to food etc.) that identify factors that impact our lives, as well as where we work. Over the past decade, these non-medical factors have started to be integrated into the clinical workflow in providing care to patients, not just to manage their health status, but also, to impact their wellbeing. These efforts include non-medical factors such as housing, transportation, food, and financial strain into a patient's care plan as the next step in identifying and addressing the holistic needs of our patient and the structural needs within our communities. This presentation will ask the question 'Do SDOH differ by Job Title' and if so, can employees to impact their non-medical needs. And if the SDOH differ by job title, is there opportunity for employers to proactively implement interventions at the workplace based on how SDOH differ by job title. Four case studies will be presented.

Learning Objectives

- Define the term Social Determinants of Health and list the physical and environmental domains.
- List the three steps in the process of addressing the Social Determinants in the clinical and community settings.
- Outline the role of employer implemented screening of SDOH to start programs and identify resources to empower employees to impact their non-medical needs.

Faculty

Kevin F. Smith, MD, MPH



9:00:00 AM - 10:30:00 AM

106 How COVID-19 is changing tuberculosis demographics, diagnostics, and treatment: Considerations for the Work Force

The COVID-19 global pandemic elucidated the critical importance and potentially devastating effects of airborne infectious diseases on workforce safety. Tuberculosis (TB), prior to the emergence of COVID-19, was the world's leading infectious disease killer. In this session, led by one of the world's top experts in TB epidemiology and disease, the former head of the Centers for Disease Control and Prevention (CDC) Division of Tuberculosis Elimination, and other US-based TB experts, we will examine new surveillance patterns of global TB infection, areas of supply chain disruptions, and predictions of future TB 'hot spots'. With an increasingly diverse workforce worldwide, this has relevance to hiring decisions and surveillance programs for latent and active TB. Despite these negative consequences, in the past two years there has also been progress made in diagnostics and laboratory automations, as well as new short-course oral antibiotic treatment regmens that can stop this deadly infectious disease before it enters your workplace. This session will provide updated and forward-thnking approaches to TB surveillance, diagnosis, and treatment.

Learning Objectives

- Examine the current US tuberculosis (TB) surveillance data and determine the impact of rising TB case rates for their own work environment.
- Describe the recent advances in TB diagnostics, and new shorter TB treatment regimens.
- Integrate available TB risk assessments into existing occupational health protocols and develop a comprehensive screening and treatment approach for their current practice environment.
- Develop a comprehensive approach for addressing TB in their work environment

Faculty

Amy J. Behrman, MD, FACOEM Kenneth G. Castro, MD, FIDSA Julie M. Higashi, MD, PhD Wendy T. Thanassi, MA, MD, MRO Donna H. Wegener, MA



10:45:00 AM - 11:45:00 AM

107 Teaching with VR and AR

This lecture provides attendees a thorough overview of how VR, AR, and MR are being used in medical education. It defines key terms, discusses relative strengths and weaknesses, and provides example use cases of each technology. It reviews the evidence for VR in education and provides attendees with a sense of what's coming next in this space in 5, 10, and 20 years.

Learning Objectives

- Define key terms around VR, AR, and MR technology as it relates to medical education
- Describe the relative strengths and weaknesses of VR, AR, and MR as educational modalities and discuss how each are being used in medical education currently with specific examples
- Provide a view into the future of XR technology in medical education

Faculty

Ryan Ribeira, MD, MPH



10:45:00 AM - 11:45:00 AM

108 Occupational Medicine and Sports Medicine working together to bring about the resumption of International Sporting events after COVID-19.

The session will be a presentation from Dr Tok Hussain and Dr James Quigley.Dr Tok Hussain and Dr James Quigley were the Senior Medical occupational health team that worked closely with the England and Wales Circket Board (ECB) in June 2020 to bring about the first International sporting event following the worldwide lockdowns. Occupational Medics (Dr Hussain and Quigley) worked closely with Sports Physicians (Dr Nick Pierce and Dr Thamindu Wedatilake) to set up safe bio-secure bubbles and systems to allow England and West Indies to play the first International Cricket match (this was the worlds first International sporting event after COVID-19) in Southampton UK in June 2020. The project involved testing anyone involved with regular PCR testing, performing occupational health vulnerability checks on all involved before they returned to work, daily electronic questionnaires, COVID-19 passport (electronic) to sente venues, creation on bio-safe and bio-secure venues, creation of bubbles, creation of zoning in venues and provison of on-site medicla support for all staff and players involved. The session will be a one off presentation in a lecture theatre.

Learning Objectives

- Plan the management of occupational health provision at sporting events.
- Perform a COVID-19 risk assessment and risk audit of venues.
- Define the various measures that need to occur before an individual can enter a potentially biosecure environment.

Faculty

Tokeer Hussain, MB ChB James Quigley, MBBS AFOM DRCOG FRSPH



10:45:00 AM - 11:45:00 AM

109 The Moral, Ethical, Legal, Historical, & Practical Implications of Pre-Employment and Random Drug Testing: An Advocacy Lecture

Upon increasingly widespread acceptance that the 'War on Drugs' has been a devastating policy failure, a paradigm shift in how we view substance use is re-emerging. Harm reduction and informed substance use education are replacing the 'Just Say No' model to support a safer population that recognizes that users of both legal and illegal substances hold the same fundamental rights and addresses demonstrated substance use disorders with a rehabilitative rather than punitive approach. Occupation is a social determinant of health. Therefore, reasonable access to steady employment, for salary and purpose, is a positive right. The negative right to bodily integrity/autonomy is also a protected domain. Efforts to infringe upon these rights with pre-employment or random drug testing must therefore provide clear and convincing evidence that they ensure or preclude safety/productivity issues in non-safety-sensitive work, which does not exist. This presentation is an advocacy-focused lecture recommending the universal elimination of pre-employment and random drug testing for non-safety-sensitive positions in the United States at the federal level. are true? Are these reasons valid enough to limit civil liberties? If not, what is the solution?

Learning Objectives

- Explain the intentions and assumptions of pre-employment and random drug testing and consider whether they are valid.
- Explain the role of the history of human substance use and the 'War on Drugs' on the moral, ethical, and legal implications of pre-employment and random drug testing.
- Explain the role of bodily integrity/autonomy and the right to reasonable occupational access in considerations on the moral, ethical, and legal implications of pre-employment and random drug testing.

Faculty Arielle J. Gerard, MD, MS, MPH



10:45:00 AM - 11:45:00 AM

110 Workplace and Community Strategies for Evaluating and Addressing COVID-19 Vaccine Hesitancy

Vaccine hesitancy is a significant and ongoing issue in the United States particularly since the late 1990s following the work of Dr. Andrew Wakefield, compounding pre-existing issues of mistrust in healthcare systems in underserved communities. While issues of hesitancy generally have not resulted in significant community impacts other than uncommon small outbreaks, COVID-19 vaccine hesitancy shares some of the existing issues while having new facets of its own, and is also more prevalent in underserved communities. The COVID-19 pandemic already resulted in a larger degree of disparate health outcomes in underserved communities due to increased rates of chronic disease, greater exposure to COVID-19 with more 'essential' workers from these communities, and higher incidence of severe disease and death prior to vaccination availability, and the reduced uptake of vaccine by some communities has amplified these issues. This session aims to describe the reasons behind issues of COVID-19 vaccine hesitancy in work-related and non-work-related settings, and how community partnership and appropriate messaging can work to overcome these barriers. hesitancy in underserved communities and workers.

Learning Objectives

- Discuss issues of trust, hesitancy, and deliberation regarding vaccines, particularly the COVID-19 vaccine.
- Engage patients and workers with language to convey understanding and empathy regarding vaccine-related concerns.
- Pursue community- and workplace-based partnerships to reduce vaccine hesitancy.

Faculty

Zeke J. McKinney, MD, MHI, MPH



10:45:00 AM - 11:45:00 AM

111 Which Health and Safety Award is Right for Your Organization? The Value in Applying for ACOEM's Excellence in Corporate Health Achievement Award

ACOEM's Excellence in Corporate Health Achievement Award (eCHAA) brings attention to the importance of worker health, safety, and environmental management. It emphasizes an organization's performance measures, positive outcomes, and continuous improvement. It also communicates the highest standards of excellence to the business and professional community and provides organizations with visibility and validation of their efforts to provide a safe and healthy working environment. Organizations have the option to apply for a wide variety of health and wellness awards. Which one is right for your organization? This session will highlight the value of participating in the eCHAA program and why the comprehensiveness of this award will better suit your organization. Tips will also be provided on how to engage leadership in supporting an application and the benefits of applying for and winning the eCHAA.

Learning Objectives

- Demonstrate an understanding of the eCHAA criteria and process.
- Identify the benefits of the eCHAA vs. other health and safety awards.
- Describe key messaging to engage organizational leadership to support an application.

Faculty

Nathan M. Jones, MD, MPH Charles M. Yarborough, III, MD, MPH, FACOEM



10:45:00 AM - 11:45:00 AM

112 Scanning the Horizon - Biological Exposures and Occupational Medicine

The awareness of the potential individual and workplace havoc that can be wreaked by exposures to biological hazards has probably never been higher than it currently is. A tsunami combination of experiencing a pandemic, the increased public and private funding of animal and human health related research and the rapid growth of the globally emerging biotech industry has created the need for greater participation by occupational health providers in both the planning and response processes in reducing risks to workers and the general public. Research and health institutions need occupational medicine providers who are knowledgeable and willing to assist in this vital area. This presentation is led by a globally experienced expert in working with government, private and non-government organizations to expand efforts in biological risk management.

Learning Objectives

- Discuss the growing need for their medical expertise in preventing and treating biological exposures.
- Identify institutions in their respective communities that can benefit from their medical services.
- Identify and create appropriate training opportunities and assets for preventing and treating biological exposures.

Faculty James M. Welch, BS



12:45:00 PM - 1:45:00 PM

113 Precepting & Competency-based Education

Community occupational and environmental medicine (OEM) practitioners have important knowledge and experience to share with residents based in academic institutions but often may not know how to become a residency rotation preceptor. This session aims to build a bridge between academic OEM residency programs and community OEM practitioners. Over the past 15 years, residency training of OEM physicians has transitioned to a competency-based model. For residency preceptors, an understanding of competency-based education supports meaningful engagement with today's residency training programs. The Accreditation Council for Graduate Medical Education (ACGME) competencies and milestones can be used to develop and communicate specific learning objectives for your rotation with residency training programs, and with residents themselves. The ACGME milestones for OEM, first published in August 2013, were recently revised. This session will provide an overview of competencybased training, an update on the new ACGME milestones, and recommendations for how to approach a residency program with your new proposed rotation.

Learning Objectives

- Engage in education of residents using competency-based methods.
- Plan residency rotation objectives using ACGME milestones.
- Distinguish between ACGME milestones and ACOEM core competencies.

Faculty

Ana Nobis, MD, MPH, FACOEM Pamela L. Krahl, MD, MPH, FACOEM, FACP



12:45:00 PM - 1:45:00 PM

114 Beyond DOT drug testing: Toxicological evaluation in NTSB accident investigations

Employees designated by Department of Transportaion (DOT) regulations as having a safety sensitive job are subject to DOT drug and alcohol testing. Testing is restricted to five classes of drugs of abuse and uses urine specimens. Post-accident, certain criteria must also be met before drug testing is required. The National Transportation Safety Board (NTSB) is an independent, non-regulatory federal agency whose mission is to determine the probable cause of transportation accidents. By necessity, for the medical aspects, NTSB's evaluation goes beyond DOT drug testing and uses other sources of toxicology information. In our evaluations, we consider whether natural disease, its treatment, or use of substance(s) lead to impairment or incapacitation which contributed to the cause of the accident. Through several case examples, this presentation illustrates the shortcomings of DOT drug testing for determining probable cause of an accident and provides insight to providers who evaluate employees in safety sensitive positions.

Learning Objectives

- Describe the approach taken by NTSB in evaluating the medical aspects of transportation accident investigations.
- Identify some shortcomings of DOT drug testing in evaluating impairment in post-accident investigations.
- Recognize the role of the effects of using some prescription and non-prescription medications when performing safety sensitive functions in accident causation.

Faculty

Michelle Watters, MD, PhD, MPH



12:45:00 PM - 1:45:00 PM

115 What we learned - setting up a successful staff health risk assessment survey during a pandemic.

Having good data is essential to any Occupational Health Service. Our Health and Safety team provides occupational health and safety support to more than 30,000 staff based in 200+ offices in 140+ countries, many of whom travel frequently, and with very different risk profiles. In 2021, we conducted a health and safety risk assessment of all staff, with dual objectives of following up on changes in health status from our baseline survey conducted in 2014 as well as assessing effects of the COVID-19 pandemic. We aligned with organizational objectives namely, evaluation of previous evidence-based interventions for ongoing health and safety initiatives, the impact of COVID-19, and planning for future interventions, including safe return to premises. The timing of the survey presented unique challenges, including thoughtful adaptation of baseline survey, novel communication requirements, and stakeholder agreement. We succeeded, with a high response rate (32%) and adoption by 23 UN agencies (23%). During this session, we will present tailoring a survey with outcome in mind, including reflecting the impact of a global health crisis on organizational priorities.

Learning Objectives

- Explain how to get information that you can use to inform your programs and then what do you do with it
- List actionable 'how to achieves'
- Describe roadblocks and how to overcome them

Faculty

Stuart B. Fisher, PhD Caryne S. Frith, MBBCH, DOH, DipPEC Jasminka Goldoni Laestadius, MD, PhD, FACOEM Sophia Woldemicael, MD (ASCP)



12:45:00 PM - 1:45:00 PM

116 A Centre for Wellbeing - set up and delivery of an integrated and agile on site holistic wellbeing service - what are the challenges, does it make a difference and can you prove it is worth it to the business?

Jaguar Land Rover piloted and then expanded a concept of Centres for Wellbeing at our main sites starting in the UK and then globally. These centres offered a holistic, integrated and evolving programme of activities based on the biopsychosocal model. Ease of access was paramount both via physical and digital entry points, with guided triage to programmes based on an individual assessment. Programmes evolved in response to both external and internal influences e.g. long COVID and mental health prevalence respectively. We ran individual and group classess, both on site and digitally. Proof of concept and proof of return of investment was a key component of the design, using validated clinical tools and robust Return on Investment analysis. We had to prove to the business we were making a difference to both the health and wellbeing of colleagues as well as colleague engagement but also the underlying financial fundamentals of the business. This session will discuss the challenges of setting up the centres, critique the mistakes made and analyse the actual data to show the difference it made to colleagues and the business.

Learning Objectives

- Demonstrate the skills and knowledge to write the proposal and set up a Centre for Wellbeing in their own businesses.
- Detect and avoid the common mistakes in the set up and design of programmes and the physical layout of a Centre for Wellbeing in their own businesses.
- Design and appraise the programmes to ensure data capture in real time leading to the production of robust management information for their own businesses to prove the success of the programmes.

Faculty Steven P. Iley, MBChB



12:45:00 PM - 1:45:00 PM

117 Social Media as a Tool to Educate the Public, Promote Your Practice, and Maximize Engagement

Social media is a powerful tool that can be used to educate patients and the public on a variety of pertinent health and safety issues. Whether you are brand new to social media or already have your own hashtag, this session will de-mystify the various platforms, provide an overview of posting, following, and interacting, and offer guidance for developing engaging content. This session will empower you to create an online presence and learn strategies to maximize and engage with potential audiences, share stories, and be part of the conversation.

Learning Objectives

- Create a social media account and establish an online presence
- Engage with an online audience and promote educational resources to patients
- Utilize social media for marketing/PR for your practice

Faculty

Manijeh Berenji, MD, MPH, FACOEM Zeke J. McKinney, MD, MHI, MPH Charles F. Peckman Erin L. Ransford, BSPH Parvathi Somasundaram, MD, MPH



12:45:00 PM - 1:45:00 PM

118 Worker's Compensation Disability Evaluations Related to the Visual System and Ocular History Taking for all Physicians. How to Ask the Right Questions and How to Read and Interpret Worker's Compensation Ophthalmic Reports.

Work-related ocular injuries are less common than injuries to other body parts. However, eye and vision-related impairments are often missed when a history intake is done. When co-existing with other bodily injuries, the evaluating general practitioner depends on the reports from ophthalmologists or optometrists involved in the case for the ophthalmic report. However, the language and concepts used by these specialists are often confusing and complicated for the average medical practitioner. This session will discuss the concepts in a simple and understandable way. Ocular-related history forms are presented. Visual impairments, such as reduced visual acuity, loss of visual fields, binocularity dysfunction, color vision abnormalities, dry eye symptoms, light sensitivity, etc., are discussed. In addition, work preclusions for these visual impairments are investigated.

Learning Objectives

- Probe appropriate ocular-related history from injured workers. Two sample history forms will be shared. First is a short form that is designed to identify any visual or ocular abnormalities. The second is a multi-page detailed form that identifies comprehensive aspects of the injured worker's ocular conditions.
- List the categories used in rating visual impairments: Visual Acuity, Visual Fields, Individual Adjustments (binocularity, color perception, photophobia, glare sensitivity, etc.). Combining these values with other bodily disabilities is discussed.
- Envision work preclusions for various visual impairments. Examples of conditions considered are dry eye syndrome, photophobia and glare sensitivity, poor visual acuity, and poor depth perception.

Faculty Babak Kamkar, OD



2:00:00 PM - 3:30:00 PM

119 The Global UN Workforce: A Road to Post-Pandemic Recovery and Resilience

The United Nations (UN) Health Intelligence conducted the UN-Wide Health Survey among 23 UN agencies with total 158,572 employees worldwide between June and August 2021. The survey was administered in English, French, Spanish, and Arabic through a common platform to assess the pandemic impact on physical and mental health in the UN global workforce. Average response rate was 23%. Results showed high prevalence of preventable health risks and disorders, which worsened significantly during the Covid-19 pandemic. Geographical differences in access to vaccination and vaccine hesitancy were extensive. Health risk stratification showed 57% of respondents to be in medium or high health risk categories. This comprehensive health risk assessment provided a powerful pool of data to guide future UN OEM strategies, and mental health and wellbeing services. The research team and Medical Directors of participating UN agencies will present detailed results and recommend evidence- based interventions to recover workers' physical and mental health, increase resilience for future global health crises, and prepare UN organizations for work in the post-pandemic world.

Learning Objectives

- Discuss challenges and opportunities of Occupational and Environmental Medicine during and after the global health crisis. The research team will demonstrate how to conduct health risk assessment to establish OEM interventions across borders. Participants will be able to apply lessons learned from the UN physicians to their own diverse populations.
- Assess modifiable health and safety risks in remote and diverse workforce, how to select and customize appropriate survey tools and customize them to fit their populations, and how to establish a baseline for monitoring and evaluation of preventive programs' impact.
- Describe the processes of networking, collaborative decision/consensus making among UN physicians, and reaching out to a mobile, dispersed workforce to provide preventive OEM programs in a coordinated manner. In an interactive session, participants will discuss how to develop sustainable and effective OEM strategies for hybrid work in the post-pandemic era.

Faculty

Gloria Dal Forno, MD, PhD Marianne Igelnik, MD Jasminka Goldoni Laestadius, MD, PhD, FACOEM Matthias Lademann, MD Sophia Woldemicael, MT (ASCP)

Other Authors

Danijela Milic, MPA Roger Parry, BA, MSc, MBA Aidan Stead, BSc



2:00:00 PM - 3:30:00 PM

120 Assessing the Impact of Climate Change on the Health of the Worker and Developing Solutions: An Interactive Session to Gain Knowledge and Build Confidence to Communicate with Patients

While many health professionals report that the health of their patients will be harmed by climate change, continuing professional education and communication training are cited as barriers to engage in this topic in the clinical setting. This 3-part interactive session will start with a 30-minute presentation on the science and health impacts of climate change. Participants will then be placed into seven groups to discuss prepared scenarios, and play provider and patient roles for 30 minutes. The potential impact of the scenario on a patient's work and health will be explored with guidance from the session faculty. The scenarios provided will set the context for seven climate change related events namely heat, drought, food insecurity, an extreme weather phenomenon, air pollution and allergies, infectious diseases and lastly mental health. The small group deliverable will be three questions a provider may ask to elicit relevant clinical information for each scenario. For the last 30 minutes, a spokesperson from each group will report out on key points and the formulated questions. Participants will leave with the collective set of questions from each scenario.

Learning Objectives

- Describe the science of changes in the climate and resulting environmental impacts
- Identify seven major pathways through which climate change will impact human health
- Gain confidence in relating climate change to real life health implications through role-play and arriving at viable solutions

Faculty

Judith G. McKenzie, MD, MPH Pouné Saberi, MD, MPH



2:00:00 PM - 3:30:00 PM

121 Hot Topics in Occupational Neurology and Neurotoxicology

In this didactic session, Dr. Rutchik will update the audience on 6 important topics in the area of occupational and environmental neurology and neurotoxicology. In 2021, this was quite successful. For 2022, these topics will include complex lumbar and lower extremity disorders; head injuries and post-concussion seizures, chronic traumatic encephalopathy and complex neurologic return to work scenarios, functional neurological cases, central and peripheral nervous system neurotoxicity, and Covid 19 neurological sequela. Clinical pearls and direction on newest direction on acute and chronic care will be presented.

Learning Objectives

- Evaluate patients with complex neurological presentations
- Describe how to treat patients with head injuries
- Discuss the challenges of returning a safety sensitive employee back to work after a neurological condition arises; will become more confident when handling a patient with a functional neurological problem or a Covid 19 patient

Faculty Jonathan Rutchik, MD, MPH



2:00:00 PM - 3:30:00 PM

122 Addressing Veterans' Concerns with Exposures at the VA and the Promotion of Telehealth

Concerns with environmental exposures to Veterans, both during and between combat deployments in growing among Veterans, Congress, the media and other advocates. This session will review some of the known or postulated environmental exposures or situations such as Agent Orange, various Gulf War exposures (depleted uranium, pesticides, chemical agents etc.) burn pits and other airborne hazards, PFAS (and related compounds), Karshi Khanabad (K-2) Air Base and others. It will describe the current six registry programs in this area and the future of registries known as the Individual Longitudinal Exposure Record (ILER). In addition, the current process of getting a Veteran into an exposure exam and/or referring the Veteran for a more comprehensive workup at what is known as the WRIISC will be delineated and provide information on VA training opportunities in this area. It will also brief on the wide expansion and use of telehealth and video-connect and plans to maintain the momentum in this area.

Learning Objectives

- Explain the growing importance of environmental and occupational medicine to evaluate militiary exposures in Veterans.
- Describe why registries have strengths and weaknesses and that the Individual Longitudinal Exposure Registry may helps solve some of these issues.
- Discuss how telehealth helps with some but not all the issues with evaluating a Veteran with possible toxic exposures this session will help with triaging additional tests or consults as needed based on history.

Faculty

Ronit Katz, MD, FACPM Michelle W. Robertson, MD, MPH Peter D. Rumm, MD, MPH Shanna Smith, DrPH



2:00:00 PM - 3:30:00 PM

123 Preventing low back pain disability: From research to practice

Low back pain occurs at some time in most adults. Despite most episodes manifesting as non-specific LBP, the condition remains a significant contributor to medical expense, lost work time and indemnity costs, workers' comp and social security disability. There is growing evidence that both medical and non-medical factors, including psychosocial, workplace and system factors, are significant contributors to disability. Care decisions can also contribute to disability. Of significance, clinician and patient conversations tend to focus on biomedical issues that fail to identify disability risks, missing opportunities to address return to work barriers. Evidence based early screening instruments exist, yet clinicians have not commonly adopted these tools in practice. Literature suggests that multi-domain interventions including healthcare provision, service coordination and work accommodation can reduce work loss. This session will review research evidence and practical solutions to reduce LBP disability. I put this in because psychological factors really are medical.

Learning Objectives

- Describe LBP disability risk factors (psychosocial, workplace, medical care, system)
- Identify literature supported LBP disability risk screening tools
- Discuss the implementation of psychologically informed practice and Primary Spine Practitioner training to improve outcomes
- Develop a framework to identify and implement disability prevention strategies in multiple practice settings

Faculty

Michael Erdil, MD, FACOEM David Hoyle, PT, DPT Donald R. Murphy, DC, FRCC



2:00:00 PM - 3:30:00 PM

124 COVID-19 isn't the only virus. What's next on the pandemic list and how can I be prepared?

The last 18 months have been a fascinating journey through the first pandemic in many decades. What has it taught us? That we (largely) were unprepared; that science is often taken with a pinch of salt by Governments who make their own decisions about protective measures, lockdowns, restrictions, quarantine times, isolation times, mask wearing, vaccinations, boosters; that politics has played an unpleasant part in morbidity and mortality; and that if you're trying to provide health to a global population of employees through all of this, it's difficult and almost impossible to apply one standard set of principles across the world. Can we do it better next time? Can we be better at predicting next time? This session looks at the value of warning and surveillance systems, how to be best prepared for another pandemic through dynamic business contingency plans and how to best manage this in a global context, learning from the lessons of COVID-19.

Learning Objectives

- Differentiate fact from fiction as he/she develops risk mitigation policies/procedures against COVID-19.
- Describe how and where different countries have developed certain practices pertaining to COVID-19.
- Demonstrate a safe COVID-19 risk mitigation program regardless of the geographic/political jurisdiction.

Faculty

Athalia Christie, DrPH, MIA Myles Druckman, MD Robert L. Quigley, MD, D.Phil



3:45:00 PM - 5:15:00 PM

Opening General Session: Sappington Lecture

The Sappington Lecture was created to honor Clarence Olds Sappington, MD, DrPH (1889-1949), who was a noted consultant in occupational diseases and industrial hygiene and the first American to hold a DrPH degree.

The Future of Preventive Medicine

Paul Jung, MD, MPH, MBA

Paul Jung is a preventive medicine physician who has served in assignments at the Health Resources and Services Administration, Indian Health Service, Peace Corps, Office of the Surgeon General, Centers for Disease Control, National Institutes of Health, and Food and Drug Administration. Dr. Jung chaired the Physicians Professional Advisory Committee of the U.S. Public Health Service for two terms and is one of the most widely published authors on the health of Peace Corps Volunteers and the specialty of Preventive Medicine. He graduated from the University of Maryland School of Medicine, completed residencies in internal medicine at Case Western Reserve University and preventive medicine at Emory University, and earned his M.P.H. as a Robert Wood Johnson Clinical Scholar at Johns Hopkins University. Dr. Jung is a Fellow of the American College of Preventive Medicine.





5:30:00 PM - 7:00:00 PM

Opening Reception and Poster Viewing Session

Join the ACOEM Board of Directors and the Program Committee for the Opening Reception in the Grand Ballroom Exhibit Hall. Network with friends and see what exciting products and services the exhibitors are showing. Join us for a fun and interesting evening exploring new technologies for occupational medicine professionals. ACOEM wishes to thank the AOHC 2022 exhibitors and acknowledge their part in contributing to the success of the conference.

Abstract Poster Session

NEW in 2022! 1.5 AMA PRA Category 1 Credits[™] are offered for the poster session on Sunday, May 1.

Posters will be on display beginning Sunday, May 1 in the corridor between the Grand and Imperial Ballrooms (just outside the exhibit hall). Poster authors will be available to discuss their research on Sunday, May 1 from 5:30 PM - 7:00 PM.

Learning Objectives

- Describe the most recent research in occupational and environmental medicine.
- Discuss the importance and impact of the research presented.
- Describe the impact of research on the field of OEM.



8:00 am - 11:00 am Bus Departs: 7:00 am

HILL AIRFORCE BASE WORKSITE VISIT (Separate registration required)

Acids...Chrome...Cadmium...MSK...Isocyanates...Solvents....

These are just a few of the dangerous materials encountered everyday by those who work at Hill Airforce Base Plating and Depot Maintenance Facility.

Discover how the military manages these hazards during this in-depth tour.

Hill Airforce Base is home to one of the nation's largest plating facilities. The landing gears from all Air Force aircraft are sent periodically to get stripped and replated to extend the service life of the landing gear.

In addition, the base also serves as the F-16 Depot maintenance facility, where F-16 aircraft are disassembled, media blasted, and repainted to also extend the service life of the aircraft. This is a rare opportunity to see occupational safety practices in such an intense setting.

Learning Objectives

- Identify the most common hazards associated with aircraft maintenance
- Identify all the different levels of the hierarchy of control
- Understand the teamwork approach to identifying/controlling hazards and protecting workers

Please Note

- US Citizens will need to provide their driver's license number in advance of the tour for a background check. A form will be sent via email. Registrations must be received by March 28, 2022.
- Foreign nationals are permitted on the tour pending the completion of a Foreign Visitor Request Form, which will be sent upon registration, and a background check. Registrations must be received by March 21 and the form must be returned by March 28.



8:00 am - 10:00 am Bus Departs: 7:30 am

DEVELOPING A COMPREHENSIVE OEHS/OM LEGACY PROGRAM RMCOEH WORKSITE VISIT (Separate registration required)

Goals:

- 1. Identify the criticality of having a legacy story
- 2. Detail means to develop and secure funding
- 3. Summarize the utility of a thoughtful strategic plan for the future

Faculty:

Eric Swedin, PhD. Historian. Weber State University Dennis Lloyd, JD. Chief Counsel. WCF Insurance and RMCOEH Adv Board Chair. Kurt Hegmann, MD. RMCOEH Center Director

Location:

Rocky Mountain Center for Occupational and Environmental Health 250 East 200 South Salt Lake City, UT

Description

This breakfast session will describe elements to develop an impactful OEHS/OM program. This journey will start with highlights from an historian, Dr. Eric Swedin, who has catalogued Dr. Paul Richards` work as CMO of the Kennecott copper mine, implementing OEHS injury prevention programs, and major impacts on public health.

RMCOEH was founded in 1977 and groundbreaking legislative advances have resulted in 8-fold growth of RMCOEH over the past 18 years including expansion of all of its OEHS and OM programs. These legislative advances will be described by Dennis Lloyd, JD. Future plans will be projected including expansion to Weber State University and development of undergraduate and pipeline programs. These plans will be provided as templates for others to develop your own local programs and legacies, whether in academia or at healthcare systems.

Subsequent, optional tours of RMCOEH of up to 1 hr are available to tour and discuss with the expert PhD/MD/DO faculty/research staff/students regarding projects and facilities at RMCOEH including 4 of the research teams located at the HQ building: Occupational Injury Prevention lab; COVID studies; Evidence-based Medicine Research Team; and the Center for Meeting Effectiveness.



7:30:00 AM - 8:30:00 AM

201 Safety and health strategies, challenges, and successes of the Church of Jesus Christ of Latter-day Saints

Participants will learn about the safety and health efforts for the complex world-wide operations of the Church of Jesus Christ of Latter-day Saints. Health and safety strategies address the needs of Church workers engaged in a wide diversity of labors to support Church membership, local communities and citizens of the human family in over 150 nations. In addition to a young adult missionary force of over 50,000 serving in neighborhoods across the world, a variety of employees and volunteers contribute to the work in apparel manufacturing, agricultural food production, food processing, disaster recovery efforts involving tens of thousands of volunteers, cultural living museums, family history centers, humanitarian projects, and facility construction and maintenance tasks amongst many other activities across the globe.

Learning Objectives

- Broaden perspectives of work exposures and hazard control strategies that occur internationally for a diverse workforce.
- Provide information of incident and injury prevention strategies targeted for different age groups and abilities.

Faculty Nathan H. Spencer, MS



7:30:00 AM - 8:30:00 AM

202 PFAS: Past, Present, and Future - Current State of Affairs

Per- and polyfluoroalkyl substances (PFAS) are chemicals that have been used in both industry and consumer products since the 1940s. These chemicals include perfluorooctane sufonic acid (PFOS) and perfluorooctanic acid (PFOA). PFAS are widely used in industrial applications, including in fire extinguishing foam, chrome plating, electronics, and in textile and paper manufacturing. PFAS are also found in consumer products such as food packaging, nonstick cookware and personal care products. Research over the years has demonstrated that exposure to PFAS may lead to health effects such as decreased fertility, developmental effects or delays in children including low infant birth weights, asthma, thyroid hormone disruption and cancer. There is no current EPA maximum concentration limit for PFAS. EPA has established a health advisory for PFA at levels above 70 parts per trillion. As of June 2021: Only 14 states have adopted a PFAS standard at or less than 70 parts per trillion. This session will aim to review the history of PFAS and current steps being taken at the federal and state levels to regulate PFAS.

Learning Objectives

- Assess current scientific studies on PFAS
- Review current environmental and epidemiological studies on PFAS and its impact on human health
- Discuss current regulatory landscape at the national and state level surrounding PFAS

Faculty

Manijeh Berenji, MD, MPH, FACOEM Warren Silverman, MD, FACOEM Shilpa N. Gowda, MD, MPH, FACOEM



7:30:00 AM - 8:30:00 AM

203 Doctor, doctor, give me the news and stop my employees getting the blues. How to run a successful wellbeing and mental health programme and get results.

One thing COVID-19 has shown us (apart from reminding us of the challenges of dealing with a pandemic) is its impact on non-communicable diseases and in particular mental health (MH). The long-term effects of COVID-19 on MH, in conjunction with the existing MH issues, make it likely that over the next decade, MH morbidity may be greater than that seen with COVID-19 infection itself. If you're managing a global workforce in multiple countries, how do you manage their mental health and well-being when there are different cultures, expectations, values, stigmas, and understanding of MH as an issue? Having an EAP is not the answer for MH, particularly in emerging markets, yet it seems to be considered as adequate by many global organizations. This session covers the future of MH and wellbeing, what works and what doesn't, gives examples in health and fiscal terms of global programs that have been successful and some that haven't.

Learning Objectives

- Describe how different cultures acknowledge and in turn manage MH.
- Define how COVID-19 has been more than a communicable disease and in fact has exacerbated many non-communicable diseases inclusive of mental health.
- List those best practices needed to design and execute a successful well-being program with an emphasis on MH.

Faculty

Philippe Guibert, MD Robert L. Quigley, MD, D.Phil Richard Vinroot, MD, MPH



7:30:00 AM - 8:30:00 AM

204 The ACOEM Program for ABPM Certified Physicians to Meet Transitional Improvement in Medical Practice (IMP) Requirements

As one of the four parts required for recertification under Maintenance of Certification, American Board of Preventive Medicine diplomates are required to complete a practice performance assessment, also known as Part IV. This component utilizes a quality improvement model with opportunities for assessment of practice performance and improvement activities available in clinical practice, teaching, research, and administration. This session will cover ACOEM's Part IV program.

Learning Objectives

- Describe the overall elements of the ABPM Transitional MOC Requirements
- List the choices available for them to identify an area for a practice improvement plan.
- Demonstrate knowledge of what is required to complete the ACOEM Transitional MOC IMP module for ABPM certified physicians.

Faculty

Denece O. Kesler, MD, MPH, FACOEM Kevin C. Patrick, B.A.



7:30:00 AM - 8:30:00 AM

205 Bouncing back after a work injury: Applications of the science of resilience

Injured employees experience many challenges when faced with a work-related injury. While many employees bounce back after an injury and take the happy path to recovery, others may struggle with multiple barriers that may delay recovery. Resilience offers a framework for understanding why some injured employees do better than others, even when the injury itself is very similar. In this innovation session, we will explore common psychosocial roadblocks to recovery: what they are, how to identify them and how to overcome them by teaching resilience building skills. We will address why these barriers are not mental health conditions and why addressing them does not develop into a 'psych claim'.

Learning Objectives

- Explain what resilience is and why it matters in a work-related injury.
- Identify individuals who are at risk and may benefit from non-medical interventions to build resilience.
- Describe digital tools used in building resilience in the context of a work-related injury.

Faculty

Marcos Iglesias, MD



7:30:00 AM - 8:30:00 AM

206 Emerging Surface Disinfectant Technologies. Sure they kill bugs but are they safe?

Patient room surface disinfection to help reduce healthcare-associated infections is an important topic. Products are continually being introduced that promise improvements including ease of use, greater efficacy, and shorter contact times. Recent pandemic response needs have resulted in a rush to get new products and technologies into the marketplace. Often overlooked details when selecting new products include user and occupant safety. This session will focus on common product formulation examples to illustrate challenges faced when trying to balance disinfection efficacy with environmental health and safety. The session will also look at emerging application methods including room fogging. The session will briefly summarize the characteristics of PAA, including common product formulations and uses, and review sampling methods, results of case studies, challenges encountered with sample media and equipment, and other occupational hygiene considerations such as the impact of posture and work habits and sampling results. The session will also review the AIHA Guidelines for the Selection and Use of Surface Disinfectants in Health Care.

Learning Objectives

- List three specific concerns regarding impact of patient and non-cleaning staff exposures to surface disinfectants.
- List a minimum of three common methods available to reduce exposures during and after room disinfection
- Describe the impact of limited exposure assessment data for patients and non-cleaning staff and identify the media, equipment, and lab methods available to assess for peractic acid and the common difficulties encountered during sampling

Faculty

John Martinelli, CDPH I/A, CHCPEW



7:30:00 AM - 8:30:00 AM

207 The Neuroscience of Exceptional Presentation - OEM communication approaches using neuroscience and pedagogical research

Is a picture worth a thousand words? Turns out it is according to Roger Shepard's research on implicit and explicit memory and learning. The ACGME has listed ability to communicate effectively as a mandatory competency for Occupational Medicine physicians and health professionals. Whether you are convincing a patient to get vacinated or giving a keynote address to 1,000 physicians, neuroscience research lays the groundwork on how to effectively convey your ideas and scientific concepts. This presentation takes peer-reviewed research from neuroscience, pedagogical science, and game theory and applies it to real world communication scenarios to teach the attendee how to be more effective and convincing when teaching, communicating and conveying his or her ideas. If you communicate with others, this is a must see session.

Learning Objectives

- Discuss how research on brain function impacts awareness and retention of technical information.
- Apply techniques described in this presentation to more effectively communicate to patients and large groups.
- Recognize a heightened awareness of how well (or poorly) scientific information is being conveyed when observing other communicators.

Faculty

Constantine J. Gean, MD, MS, MBA, FACOEM



9:00:00 AM - 10:30:00 AM

208 Hurricane Preparedness - What Do You Do When the Roof Comes Off????

This session will have presentations from the experiences of the OEM Clinical Provider and Consultant, the Hospital Based Senior Physician Leadership and an Urgent Care Network Senior Physician Leader. Major Hurricanes can have devastating impacts on maritime, offshore and coastal assets and inhabitants. The mitigation of some of these impacts is possible with advanced planning and preparation. Even with the best plans, sometimes the unthinkable happens. These presentations will give you some insight into preparations and management of the unexpected challenges.

Learning Objectives

- Discuss risks to consider in advanced planning for natural disasters.
- Describe mitigating perceived risks
- Managing Unexpected Events

Faculty Robert M. Bourgeois, MD, MPH, FACOEM Sandra Kemmerly, MD



9:00:00 AM - 10:30:00 AM

209 Diagnostic Musculoskeletal Ultrasound with Interventional Approaches to Pathology in the Upper Extremity: Shoulder, Elbow, and Wrist

This lecture will cover multiple joint MSK US which will allow clinicians seeking skills in Ultrasound to participate and learn basic to advanced skillsets. This lecture will cover the most common pathologies, tips to intervene, and a LIVE SCANNING demonstration. Participants that are hesitant to learn ultrasound due to the pre/post conference costs will be able attend with their standard conference fee. This high impact session will have robust faculty from many of the large academic universities. This session will finally cover reimbursement and how to maximize diagnostic and interventional productivity.

Learning Objectives

- Perform diagnostic ultrasound of a specific upper extremity joint
- Diagnose Musculoskeletal injuries of the shoulder, elbow, and the hand/wrist.
- Provide improved clinical outcomes to their patients by improving treatment and strategies based on their imaging examination

Faculty

Girish Gandikota, MBBS Yusef Sayeed, MD Michael Schaefer Kate Sully



9:00:00 AM - 10:30:00 AM

210 Occupational Ergonomics: Assessing, Preventing and Compensating Work-related Musculoskeletal Disorders (WMSDs) - Part I

Identifying the root cause of a WMSD is important to an Occupational Medicine practice. Ergonomic workplace assessment, intervention and recommendations can generate evidence based, clinical documents that objectivize the process to improve and compensate a worker's case or a group of workers. Most importantly, it will give the Ergonomist in collaboration with the Occupational Physician, Physical medicine and rehabilitation, Occupational nurses, Psychologist and other members of the interdisciplinary team, the tools to implement a safe-return-to work program avoiding the return of a recovered patient to the same working conditions that originally caused the injury-primary prevention. We will navigate through the macroergonomics/organizational and psychosocial and aspects that can influence a clinical occupational practice. As well as a more focused approach such as teleworking/office ergonomics, manual material handling and application of ergonomic principals into the workplace fomenting a preventive culture of WMSDs while improving productivity.

Learning Objectives

- Explain the important role Ergonomics has in Occupational Health
- Discuss the applications of the ergonomics principles of anthropometrics / biomechanics, Job analysis, workplace evaluation and design, manual material handling, organizational aspects and medical surveillance for ergonomics programs.
- Identify opportunities to implement an ergonomic program through an interdisciplinary team of health and engineering professionals through a participatory approach where workers play an important role in the process of improving working conditions, while fomenting a preventing workplace culture.

Faculty

Yohama A. Caraballo-Arias, MD Jack Dennerlein, PhD George Friedman-Jimenez MD, DrPH Andy Imada, PhD Susan Richman MD, MSc Acran Salmen Navarro, MD, MSc



9:00:00 AM - 10:30:00 AM

211 Electronic Employee Health Records in the Age of COVID-19: Opportunities, Pitfalls and How to Move forward in a Fast-changing Environment Employee health EHR needs and digital privacy.

Join our panel of OEM physicians as they discuss their experiences using Electronic Health Records (EHRs) to manage employee health and occupational medicine programs through the COVID-19 Pandemic. Specific topics will include a review of the results from a survey of OEM physicians finding common gaps, needs and limitations of their current EHRs, as well as privacy, regulatory and legal issues impacting the use of EHRs, especially in medical center settings. Panelists will discuss their experience with a variety of EHRs and how OEM physicians can influence and improve these products as we move beyond COVID-19.

Learning Objectives

- List the regulations that impact the use of employee EHRs (ADAAA, GINA, HIPAA, 21st Century Cures, OSHA, etc.)
- Discuss some of the gaps and pitfalls with current employee health EHRs
- Identify some possible solutions to the issues current EHRs face

Faculty

Sumeet Batra, MD, MPH Rosalynn RZ. Conic, MD, PhD Marcia Isakari, MD, MPH, FACOEM Kenji Saito, MD, JD Arthur Sanchez, NP-C



9:00:00 AM - 10:30:00 AM

212 The Independent Medical Evaluation

The independent medical evaluation can be an important skill developed by the OEM physician. IMEs are requested by third parties when there is an area of dispute (causation, treatment, return to duty, impairment or disability status) and do not involve typical doctor-patient relationships. Given that there are few opportunities to learn IME skills in residency, most IME physicians learn to do them 'on the job' and often attend educational seminars and courses to learn the finer skills that are necessary to perform high quality services. This presentation will review the basics of what an IME is, how it fits within the context of a medicolegal claim, and how to go about doing it. Mechanics of IME appointments and fundamental requirements for IME reports will be discussed. The learners will garner pointers and tips from an occ med physician who has conducted IMEs for 27 years.

Learning Objectives

- Describe the reasons that IMEs are conducted
- Explain how IMEs are different than typical doctor-patient encounters.
- Demonstrate the essential components of a quality IME report.

Faculty

Douglas Martin, MD FACOEM FAAFP FAADEP



9:00:00 AM - 10:30:00 AM

213 Three required topics for public safety medicine providers - Initial evaluation, seizures and diabetes.

This session will present the various public safety workers' guideances and standards as relates to these three issues. The session will emphasize how to use these documents to preform fitness for duty (preplacement, return to work, disability) evaluations in these workers (law enforcement, firefighters, correctional officers, EMS workers, bomb squads, SWAT teams). Attendees may choose to use this session to obtain credit for three required modules for the ACOEM Certificate of Completion for Public Safety Medicine Providers

Learning Objectives

- Access and understand which document to use in the evaluation of various public safety workers.
- Provide fitness for duty decisions for public safety workers as relates to pre-placement, return to work and disability evaluations.
- Advise public safety employers on the proper way to evaluate workers for fitness for duty.

Faculty

Pam Allweiss, MD, MPH Fabrice Czarnecki, MD, MA, MPH Daniel Samo, MD, FACOEM



9:00:00 AM - 10:30:00 AM

214 Occupational and Environmental Health in the Developing World

The panel will present follow-up information about Liberian public health efforts to establish national OEH standards from the perspective of the Deputy Director for Environmental and Occupational Health at the National Public Health Institute of Liberia and an update focused on vaccination efforts among Healthcare Workers that include Hepatitis B, Covid-19, and Ebola vaccinations. Panel members will discuss healthcare worker experiences in Ghana during the pandemic, address covid-19 vaccination disparities in the high income countries and describe challenges related to implementing a workplace facilitated COVID-19 vaccination program for globally distributed staff employed by international organizations.

Learning Objectives

- Describe the approval and implementation of health and safety standards by the National Public Health Institute of Liberia.
- Describe Healthcare Worker vaccination programs in Liberia, healthcare worker issues in Ghana, and vaccination disparities in high income countries during the SARS-CoV2 pandemic
- Discuss the challenges faced by occupational health professionals facilitating access to COVID-19 vaccines for staff in global organizations

Faculty

Brian J. Davey, MD Amos Gborie, MPH Stephen T. Odonkor, BSc, MPhil, MBA, PHD Sajjad A. Savul, MD, MS, FACOEM Rosemary K. Sokas, MD. MOH Benjamin T. Vonhm, M.D., MMed., M.Sc., MBA



9:00:00 AM - 10:30:00 AM

215 Called to Serve – Medical Qualifications, Readiness, and Sustainment for Missionaries of The Church of Jesus Christ of Latter-Day Saints

Missionaries of The Church of Jesus Christ of Latter-day Saints are commonly identified throughout the world as they tread two by two, often wearing recognizable white shirts and name badges. Although all serve voluntarily, eligibility and qualifications for missionary service can be quite rigorous. Furthermore, missionaries of varying ages can be expected to live and work in considerably austere conditions with limited lines of support. Supporting the more than 60,000 missionaries worldwide is the Missionary Health Services Department of the Church. Risks inherent with missionary service are not insignificant. Ensuring that individuals and couples who apply for missionary service can successfully meet their service obligations requires extensive medical, and psychological evaluation. Supporting missionaries in remote and austere environments requires considerable coordination with both federal and foreign government officials. Repatriation from missionary service can also be a challenge for some individuals that can require ongoing support. This talk will discuss the process of establishing and evaluating the medical qualifications for service for missionaries, the challenges of supporting health maintenance across the world, and successful repatriation home upon completion of missionary service.

Learning Objectives

- Describe the process to evaluate medical qualifications of missionaries and assign them to the appropriate established missions around the world.
- Discuss the diversity of exposures that must be addressed based on area, country, and locality of missionary assignment.
- Explain the process of addressing and responding to acute and chronic health and safety issues impacting missionaries.

Faculty Weatherford T. Clayton, MD



11:00:00 AM - 12:30:00 PM

216 Overview of Pre-Exposure (PrEP) and Post-Exposure Prophylaxis in Clinical Occupational Medicine

The presentation is a comprehensive review of the current management of the most clinically significant workplace biohazards in the biomedical research industry, as well as, in the in-patient and out-patient healthcare setting. It will describe the scope of both pre-exposure and post-exposure prophylaxis protocols established over the past 50 years. The presentation will focus on the current management of exposures to bloodborne pathogens (HIV, HCV, HBV), Simian B virus, chimeric viruses, tuberculosis, as well as, to exposures to multi-drug resistant and emerging agents. The presentation will also include references to all the current guidelines concerning Pre-Exposure (PrEP) and Post-Exposure (PEP) that an Occupational Medicine Specialist will need to know to support a Biomedical Research and/or Healthcare workforce.

Learning Objectives

- Review how PrEP and PEP has evolved over the past 50 years into a critical responsibility of the Occupational Medicine Specialist.
- Review the current recommended PrEP and PEP management of the most common biohazards of the Biomedical Research and Healthcare workforce.
- Learn how to deal with even the most complicated of Bloodborne Pathogen exposures.

Faculty

Michael A. Sauri, MD, MPH&TM, FACP, FACPM, FACOEM



11:00:00 AM - 12:30:00 PM

217 OEM in the Medical School Curriculum or Hamilton and Ramazzini go to Med School!

The future of occupational and environmental medicine (OEM) is in part dependent on capturing the interest of medical students early in their education. Most occupational health decisions are made by providers who are not specialists in OEM. This is particularly problematic for underserved populations who can neither afford nor access OEM specialists. The best time to reach physicians is in medical school. Despite efforts to include occupational and environmental health in medical school curricula, ACOEM's taskforce on the 'Future of OEM Workforce' notes that 'only 68% of US medical schools offer formal training in OEM, and those that do allot an average of just 4-6 hours of total curriculum time'. What more can ACOEM members do to increase medical school curricula. Panel participants will discuss obstacles and solutions to integrating OEM content, including inserting emerging issues such as climate change, into the ever-growing medical school subject matter. Open discussion will address what ACOEM members can do with their local medical schools.

Learning Objectives

- Describe at least three innovative approaches to inserting OEM content into medical school curricula.
- List obstacles and solutions to gaining acceptance of OEM by medical school curricula developers.
- Outline three ways to contribute to local efforts to educate medical students on OEM.

Faculty

Marianne Cloeren, MD, MPH, FACOEM, FACP Kathleen M. Fagan, MD, MPH Karen B. Mulloy, DO, MSCH Katherine H. Kirkland, DrPH, MPH Pouné Saberi, MD, MPH Judith G. McKenzie, MD, MPH



11:00:00 AM - 12:30:00 PM

218 Occupational Ergonomics: Assessing, Preventing and Compensating Work-related Musculoskeletal Disorders (WMSDs) - Part II

Identifying the root cause of a WMSD is important to an Occupational Medicine practice. Ergonomic workplace assessment, intervention and recommendations can generate evidence based, clinical documents that objectivize the process to improve and compensate a worker's case or a group of workers. Most importantly, it will give the Ergonomist in collaboration with the Occupational Physician, Physical medicine and rehabilitation, Occupational nurses, Psychologist and other members of the interdisciplinary team, the tools to implement a safe-return-to work program avoiding the return of a recovered patient to the same working conditions that originally caused the injury-primary prevention. We will navigate through the macroergonomics/organizational and psychosocial and aspects that can influence a clinical occupational practice. As well as a more focused approach such as teleworking/office ergonomics, manual material handling and application of ergonomic principals into the workplace fomenting a preventive culture of WMSDs while improving productivity.

Learning Objectives

- Explain the important role ergonomics has in Occupational Health
- Discuss the applications of the ergonomics principles of anthropometrics / biomechanics, Job analysis, workplace evaluation and design, manual material handling, organizational aspects and medical surveillance for ergonomics programs.
- Identify opportunities to implement an ergonomic program through an interdisciplinary team of health and engineering professionals through a participatory approach where workers play an important role in the process of improving working conditions, while fomenting a preventing workplace culture.

Faculty

Igor Bello, MD Yohama A. Caraballo-Arias, MD Jack Dennerlein, PhD George Friedman-Jimenez MD, DrPH Andy Imada, PhD Susan Richman MD, MSc Acran Salmen Navarro, MD, MSc



11:00:00 AM - 12:30:00 PM

219 Three elective topics for public safety medicine providers - Periodic exams, gender issues and COPD.

This session will present the various public safety workers' guidance and standards as relates to these three issues. The session will emphasize how to use these documents to preform fitness for duty (preplacement, return to work, disability) evaluations in these workers (law enforcement, firefighters, correctional officers, EMS workers, bomb squads, SWAT teams). Attendees may choose to use this session to obtain credit for three elective modules for the ACOEM Certificate of Completion for Public Safety Medicine Providers.

Learning Objectives

- Access and understand which document to use in the evaluation of various public safety workers.
- Provide fitness for duty decisions for public safety workers as relates to pre-placement, return to work and disability evaluations.
- Advise public safety employers on the proper way to evaluate workers for fitness for duty.

Faculty

Fabrice Czarnecki, MD, MA, MPH Daniel Samo, MD, FACOEM



11:00:00 AM - 12:30:00 PM

220 The Department of Energy's Former Worker Program: 25+ Years of Medical Surveillance, Screening and Scientific Discovery

Current and former workers at Department of Energy (DOE) sites face unique occupational hazards such as beryllium, asbestos, silica, metals and solvents and potential for disease. The DOE's Former Worker Program (FWP) has provided medical screening examinations since the 1990s to ensure evaluation of workers' health in relation to their workplace exposures. This session will highlight the programmatic structure of the DOE's medical screening programs, including key findings from scientific research that has emerged from these programs.

Learning Objectives

- List the occupational illnesses faced by Department of Energy (DOE) former workers and the mechanisms under the DOE and Department of Labor to provide them medical surveillance and eligibility for benefits under the Energy Employees Occupational Illness and Compensation Program (EEOICPA).
- Describe the relevance of the findings of Beryllium Sensitization in former DOE workers in prediction for development of Chronic Beryllium Disease.
- Recognize the importance of inclusion of occupational risk in eligibility criteria for lung cancer screening as demonstrated by former DOE workers

Faculty

Stella Hines, MD, MSPH Gregory Lewis, MPP Annyce Mayer, MD, MSPH, FACOEM Rachel Pond, MPA C. David Rowlett, MD, MS, FACOEM Steven Markowitz, MD, DrPH



11:00:00 AM - 12:30:00 PM

221 Optimizing Employee Health, Safety & Well-Being in an Academic Health System: The Role of the Chief Wellness Officer and Occupational Medicine Leadership

Over the past several years the science and practice of Total Worker Health has highlighted the profound link between work and employee health, safety and well-being. This linkage, even more apparent in the context of the COVID-19 pandemic, has motivated some employers to expand the role and structure of employee health leadership. Nowhere has this initiative become more necessary than in large health systems. This session features three leaders of a large academic health system who will illustrate the new role of the Chief Wellness Officer and how the role integrates with other aspects of occupational health care to protect and advance the health of the Health System's employees and dependents.

Learning Objectives

- Explain the role of a Chief Wellness Officer and its relationship to other aspects of occupational health care
- Outline the opportunities and challenges of multiple leaders engaged together in protecting and advancing the health of employees and their dependents
- Describe one approach to structuring a comprehensive employee health program

Faculty

Robert K. McLellan, MD Kristine Olson, MD, MS Mark Russi, MD, MPH, FACOEM Craig Thorne, MD, MPH, MBA, FACP, FACOEM



11:00:00 AM - 12:30:00 PM

222 So, You Want to Start a Podcast

In 2020, 75% of Americans over the age of 12 were familiar with podcasts, with 37% of Americans (~104 million) listening monthly (1). With the increased uptake of podcast content, more and more clinicians have incorporated podcasting into their medical practice to educate the public about various medical topics. With the launch of the *OccPod: COVID Conversations* series in late December 2020, ACOEM embarked on a journey which incorporated the intersection of COVID-19 and practice of occupational medicine. Since its inception, *COVID Conversations* tackled timely issues related to the pandemic with the perspective of the OEM practitioner. Moving forward, *OccPod* will address diverse OEM topics featuring ACOEM member content experts. Podcasts can be an effective tool for clinicians to disseminate credible information quickly. This session aims to present podcast fundamentals and provide tips and tools to set up a functional workflow for a successful podcast.

Reference: 1. The Infinite Dial 2020. Available at: http://www.edisonresearch.com/wp-content/uploads/2020/03/The-Infinite-Dial-2020-U.S.-Edison-Research.pdf. Accessed on 19 August 2021.

Learning Objectives

- Discuss the basics of podcast creation and production.
- Describe the tools needed to be able to create and stream semi structured podcasts on diverse themes. It will provide strategies on how to integrate podcasts as an effective communication tool to disseminate nuance information and thus enhancing their OEM practice.
- Describe how to participate in ACOEM's podcast, OccPod.

Faculty

Manijeh Berenji, MD, MPH, FACOEM Erin L. Ransford, BSPH Ismail Nabeel, MD, MPH, MS, FACOEM



11:00:00 AM - 12:30:00 PM

223 Sleep Disorders and their Impact on the Workplace; What's New

It is essential that the Occupational Health Care provider understands the impact of sleep disorders on the workplace. While the main condition practitioners will encounter will be Obstructive Sleep Apnea (OSA), an understanding of other conditions is also important. This session will focus on OSA but comment on other conditions and discussl recent changes in diagnosis and treatment. Current and potential changes in regulatory standards and guidance will also be discussed.

Learning Objectives

- Discuss tools which can be used in the diagnosis and assessment of sleep disorders
- Review current and emerging treatments for sleep disorders
- Describe current and pending requirements or guidance on the assessment and treatment of sleep disorders for those in safety sensitive positions

Faculty

Natalie P. Hartenbaum, MD, MPH, FACOEM Joseph M. Ojile, M.D., D.ABSM, FCCP



1:45:00 PM - 2:45:00 PM

224 Occupational Medicine on the Cutting Edge of Technology-Occupational Health Program Needs for the Battery Electric Vehicle Industry

The transition from manufacture of traditional internal combustion engine (ICE) to battery electric vehicles (BEVs) requires Occupational Medicine physicians, Occupational Health Nurses, Industrial Hygienists and Safety professionals to develop knowledge of processes and potential exposures related to these processes. This session will review the elements of BEV manufacture, the differences between ICE and BEV manufacture, and highlight opportunities for development of medical surveillance and exposure monitoring programs to align with these new operations.

Learning Objectives

- Describe the general differences between the manufacturing processes for internal combustion engines and battery electric vehicles.
- Identify potential medical surveillance program needs for manufacture of battery electric vehicles.
- Identify potential exposure monitoring needs for manufacture of battery electric vehicles.

Faculty

Francesca K. Litow, MD MPH



1:45:00 PM - 2:45:00 PM

225 Air Pollution and Health: Scientific and Public Policy Controversies

Almost unbelievably, it is currently estimated that air pollution is the 5th largest risk factor contributing to global burden of disease. Breathing fine particulate air pollution contributes to cardiopulmonary diseases and mortality. Short-term exposure exacerbates existing cardiovascular and pulmonary disease and increases the risk of becoming symptomatic, requiring medical attention, or even dying. Long-term repeated exposures increase the risk of chronic pulmonary and cardiovascular disease. Recent research has attempted to evaluate potential mechanistic pathways that link exposure to particulate air pollution and cardiopulmonary disease and mortality. This presentation will review, the top ten scientific and public policy controversies pertaining to the health effects of air pollution.

Learning Objectives

- Describe the scientific evidence that air pollution contributes to human disease including lung cancer and cardiopulmonary disease and death.
- Explain general pathophysiological pathways that link exposure to air pollution and observed cardiopulmonary disease.
- Explain the contribution of air pollution to global burden of disease relative to other important risk factors.

Faculty C. Arden Pope, III PhD



1:45:00 PM - 2:45:00 PM

226 Medical Center Occupational Health: Effective Management Strategies for Daily Success

This presentation will provide the participant with shared insights from a panel of MCOH experts regarding the daily challenges in Medical Center Occupational Health. Audience participation is key to the success of addressing audience needs. Strategies regarding infectious disease exposures such as respiratory illnesses such as COVID, Flu and TB as well as bloodborne pathogen exposures and other work injuries and illnesses will be provided.

Learning Objectives

- Develop an enhanced understanding of controversial issues in occupational medical centers.
- Improve complex case management skills relevant to facilitate their daily operations.
- Describe the resources available to address difficult MCOH issues.

Faculty

Amy J. Behrman, MD, FACOEM Rebecca Guest, MD, MPH Rachel Leibu, MD, MBA, MS, FACOEM Lori Rolando, MD, MPH, FACOEM Mark Russi, MD, MPH, FACOEM Melanie Swift, MD, MPH, FACOEM



1:45:00 PM - 2:45:00 PM

227 Adapting to the Future: Framework Analysis of External Influences on Occupational and Environmental Medicine

Occupational and environmental medicine (OEM) is a highly adaptable specialty that is largely defined by the needs of its stakeholders, including employees, employers, and the public. The Political-Economic-Sociocultural-Technological-Environmental-Legal (PESTEL) analysis provides a structured framework for considering external influences on an organization. Applying this framework to the specialty of OEM can provide a comprehensive review of the influences on our specialty today that may shape our future. This session will apply the PESTEL framework to analyze two areas of OEM practice: military OEM and civilian OEM residency training programs. The goal is to demonstrate the potential value of performing this systematic assessment. Proactively adapting to changing needs may better position the specialty to improve the health and productivity of workers in the future.

Learning Objectives

- Realize the value of using a structured framework to analyze external influences when planning strategically.
- Apply the PESTEL analysis to an area of OEM practice in order to prioritize opportunities and threats.

Faculty

Pamela L. Krahl, MD, MPH, FACOEM, FACP Aisha Rivera, MD, MS



1:45:00 PM - 2:45:00 PM

228 Implementing Nurse Telehealth Services for Workplace Injuries and Expanding it to Other Essential Occupational Medicine Services: The Yale New Haven Health Experience

Pivoting forward from successful COVID-19 telehealth services for our employees and the public, in August 2021 we expanded nurse telehealth services for injured workers that include: Workers' Compensation injury triage to determine the need for immediate care or to schedule a convenient appointment; Assisting employees with navigating the process of completing their first report of injury (FROI) form; First-aid recommendations and stay-at-work guidance for minor cuts/abrasions, bruises, dermatitis, etc.; and Simple return-to-work clearances for non-work related conditions, many of which can be cleared over the telephone or more easily scheduled with a clinician. We later expanded the services to include: COVID-19 related accommodation management; COVID-19 vaccine inquiries and adverse event reporting, including medical and religious waiver management; Non-COVID related accommodation management; and virtual PPD reads, etc. The speakers will outline their initial service design and the strategic growth of services over time; present sample protocols; review communication strategies to boost participation; and discuss early process and impact measures of success for over 32,000 internal employees of the Yale New Haven Health System.

Learning Objectives

- Describe existing models in place for workers' compensation injury triage and how they shaped the new Yale New Haven Health System model;
- Discuss staffing the model, nurse standing orders and the role of the Occupational Medicine physician; and
- Describe measures of success for both employees, supervisors, and the health system.

Faculty

Raj Ahsan, MD, MPH, Medical Director Craig Thorne, MD, MPH, MBA, FACP, FACOEM, Chief Medical Director



1:45:00 PM - 2:45:00 PM

229 All Types of Impairment Can Create Safety Risks

The cause of workplace impairment is more extensive than just substance use. To help employers and workplace safety professionals address impairment holistically, the National Safety Countil (NSC) is defining what workplace impairment encompasses. This session will discuss this new scope of workplace impairment, the safety impact of impairment in the workplace, NSC survey results revealing current employer practices and gaps, and solutions to address these multi-faceted issues.

Learning Objectives

- Describe the multi-faceted nature of workplace impairment and its impact on workplace safety
- Discuss current employer practices and barriers when addressing workplace impairment
- Reference available tools to help employers address multiple causes of impairment

Faculty

Natalie P. Hartenbaum, MD, MPH, FACOEM Katie Mueller, BA



1:45:00 PM - 2:45:00 PM

230 Playing It Straight: Best Communication Practices for Promoting a Culture of Health During Unhealthy Times

Fake news and misinformation, amplified by social media, have created unprecedented communication challenges for medical professionals. With increasing frequency, doctors may be required to address distorted claims and erroneous beliefs. Research shows that facts are more likely to be accepted by resistant audiences when they are presented in a respectful style that is both empathic and authoritative. This presentation will provide examples of this approach to help physicians counter emotionally fueled fictions with facts.

Learning Objectives

- Provide assertive, respectful responses to individuals who espouse irrational, emotionallycharged beliefs
- Empathize with individuals who espouse erroneous beliefs, even while disputing such beliefs

Faculty David Frances, PhD



1:45:00 PM - 2:45:00 PM

231 Using Mental Health Screening and Therapy to Improve Outcomes for Work-Related Concussions

Secondary emotional adjustment has an adverse effect on concussion recovery. Faculty will present findings from their study on improving return-to-work outcomes for workers receiving workers' compensation benefits for mTBI and/or post-concussion syndrome. By employing a neurocognitive screening evaluation and a brief therapy model that includes work-focused cognitive behavioral therapy to address negative emotional adjustment and functional sleep disturbances, workers can expect more favorable outcomes and return-to-work timeframes.

Learning Objectives

- Present findings that support concerns that unaddressed psychological factors severely affect mTBI and PCS RTW outcomes.
- Compare visual resources that validate pre-referral and post-referral results.
- Equip the participants with criteria that explain the importance of using the treatment models consecutively.

Faculty

Miranda Kofeldt, PhD, LP Daniel LeGoff, PhD, LP Aimee Peters, LCSW



3:00:00 PM - 4:00:00 PM

232 A mixed methods assessment of SARS-CoV-2 testing of workers: facilitators, barriers, and implications for social marketing

This session will describe the results of a two-phase study conducted between January and July 2021. The main objective was to identify facilitators and barriers for any type of SARS-CoV-2 testing (either performed on or off-site) among US businesses representing employers within the 10 NORA sectors. Phase 1 used in-depth interviews among 20 participants to elucidate employer actions regarding workplace requirements or guidelines for SARS-CoV-2 testing during the first year of the pandemic. Qualitative analysis produced 12 overarching themes related to workplace testing. The qualitative data were also analyzed for the social marketing constructs of product, price, place, and promotion. Based on the qualitative findings, Phase 2 created and distributed an online survey to obtain a national sample from a variety of workplaces. Over 300 responses are included in the data analysis which solicited information regarding both early and ongoing challenges to testing. This session will present the findings from both phases of the study, as well as provide social marketing guidance to inform workplace practices regarding SARS-CoV-2 testing for workers.

Learning Objectives

- Characterize important facilitators and barriers to implementing SARS-CoV-2 testing in the workplace as perceived by different US employers.
- Outline issues faced by US employers as a result of the COVID-19 Pandemic.
- Describe modifications sought in product, price, place and promotion to reduce barriers to SARS-CoV-2 testing in the workplace.

Faculty and/or Co-authors

Cynthia Ball, DO, MS Alberto J. Caban-Martinez, DO, PhD, MPH Naciely Cabral, MS Adrienne Eastlake, MS, RS/REHS, MT Kevin G. Moore, PhD, MBA Dalia E. Nessim, MD Claudia Parvanta, PhD Paul A. Schulte, PhD Matthew S. Thiese, PhD, MSPH



3:00:00 PM - 4:00:00 PM

233 OMG It's a Needlestick!

Quick action in the event of a body fluid exposure is the standard expectation of care for our population. Exposure to blood-borne pathogens poses a serious risk to health care personnel (HCP). We review the OSHA standards and best practices that guide the development of polices and exposure plans. We review the occupational risk and management of exposure to potential human immunodeficiency virus (HIV), hepatitis B virus (HBV) and hepatitis c virus (HC) infections. We also discuss the current methods for preventing and mitigating exposures and recommendations for postexposure prophylaxis. Lastly, we introduce methods to improve efficiency in processes which lead to a decrease in the overall dispense of HIV PEP and mitigation of HCP emotional unrest.

Learning Objectives

- Describe the key aspects of a Blood borne Pathogen Exposure Control Plan
- Describe how best to integrate processes across department to achieve improved outcomes
- Describe best practices for data collection and management

Faculty

Maria C. Lanzi, MS, MPH, ANP-BC Erlinda M. Singarajah, PhD, ANP-C, COHN-S



3:00:00 PM - 4:00:00 PM

234 Refilling Our Cups: Improvements in Community Health Center Staff Well-being Following *Total Worker Health®* Systems-level Interventions

Community health centers (CHCs) serve as the nation's public health safety net. Caring for vulnerable communities often takes an emotional and psychological toll on CHC employees, resulting in high burnout and turnover rates. The ongoing psychosocial trauma of the COVID-19 pandemic overwhelmed traditional efforts to maintain and boost staff morale. In response to an urgent need to address social isolation, workplace safety concerns, and decreasing staff well-being, AccessHealth implemented several innovative initiatives: appointed a Director of Health & Well-Being, consulted a *Total Worker Health®* professional, formed a *Trauma-Informed Care* buddy system, external partnership with a tele-therapy organization, weekly wellness initiatives, new avenue for staff feedback to leadership, and monthly psychoeducation townhalls. Pre-and post-intervention surveys revealed significant improvements in burnout, secondary traumatic stress, well-being, feelings of gratitude, and workplace environment sentiment (p-value < 0.05). Learn more about these systems-level best practices to advance healthcare worker well-being and public health.

Learning Objectives

- Justify and promote *Total Worker Health*[®]-aligned initiatives
- Describe examples of worker well-being measurement and evaluation tools
- Discuss special challenges faced by healthcare workers in community health centers

Faculty

Marcqwon Daywalker, MD Rosandra Daywalker, MD, PhD Candidate



3:00:00 PM - 4:00:00 PM

235 Military Occupational and Environmental Medicine Consultants'/Specialy Leaders' Update

This 60-minute session led by the OEM specialty leaders/consultants from three U.S. uniformed services (Air Force, Army, and Navy) will familiarize and update learners with the clinical occupational health programs of each of these services, highlighting the similarities and differences in oversight and execution. Greater understanding of such aspects can benefit OEM practice on joint installations, provide insight into some of the challenges of integrating programs and meeting key requirements/needs, and offer suggestions of possible areas for research to address OEM gaps between the Services. As the US military transitions to a greater focus on Readiness and evolving public health governance/oversight by the Defense Health Agency, more joint understanding, coordination, and collaboration will be required to ensure that essential OEM missions across the military (in support of broader operational missions) are efficiently and effectively accomplished.

Learning Objectives

- Describe the mission and current status of OEM in the US Army, Navy, and Air Force and under the Defense Health Agency
- Cite the differences in the oversight and execution of clinical occupational health programs in the Department of Defense and under the respective/participating uniformed services
- Describe key aspects of the current state/transition of clinical occupational health under the Defense Health Agency and under the respective/participating uniformed Services in this session

Faculty

Max Clark, II, MD, MPH, MHSA Scott M. Everson, DO Jose M. Ortiz, MD, MPH



3:00:00 PM - 4:00:00 PM

236 Lifestyle Medicine in the Workplace

Lifestyle medicine is one of the fastest growing medical specialties in the U.S. and offers significant benefits to occupational medicine providers, workers, and employers. This field is described as the use of evidence-based therapeutic lifestyle interventions to prevent, treat, and often reverse chronic disease. Absenteeism, presenteeism, and direct healthcare spending due to chronic conditions such as diabetes and cardiovascular disease represent an immense financial burden for employers. An evergrowing body of research supports the implementation of lifestyle medicine principles in the workplace to address these issues. This session will introduce the field of lifestyle medicine and its core tenets, share the specific benefits to be gained from embedding lifestyle medicine in an occupational setting, provide examples of successful implementation strategies, and describe practical resources for attendees to take the next step in their own practice.

Learning Objectives

- Define the specialty of lifestyle medicine, its core principles, and its impact on population health.
- Recognize the benefits of and strategies for the implementation of lifestyle medicine in an occupational setting.
- Select from various evidence-based resources to support the practical application of lifestyle medicine in the workplace to improve your patient population's health.

Faculty

Nathan M. Jones, MD, MPH Seema Sarin, MD, DiplABLM Valeria Tivnan, MPH, MEd



<u>Monday, May 2, 2022</u>

3:00:00 PM - 4:00:00 PM

237 Telemedicine and the Burgeoning Virtual Occ Health Clinic: The New Way of Practicing Occupational Medicine

As the economy and society have opened up again, many employers are seeing and reaping the benefits of offering virtual occupational health. Over the past decade, a few forward-thinking occupational health practices began offering telemedicine as part of their service offerings. With the COVID-19 pandemic, telemedicine practice sky-rocketed, with many occupational health clinicians transitioning to all-virtual care. With reimbursements at-parity with in-person care, the advancement of virtual occupational healthcare blossomed even further. With the incorporation of new digital technologies, many clinicians are embedding virtual care into their workflows to deliver better outcomes to their patients and their clients. This session will aim to provide a broad overview of virtual care in occupational health and future trends to anticipate in the next decade.

Learning Objectives

- Provide the occupational health clinician an overview of the current telemedicine landscape.
- Review best practices as to how to deliver high-quality, cost-effective virtual healthcare.
- Discuss how to set up a virtual occupational health clinic practice.

Faculty

Manijeh Berenji, MD, MPH, FACOEM Monya De MD MPH Jeffrey A. Jacobs, MD, MPH, C-MRO, FACOEM Shane P. Joseph, MD David Sterns, MD



3:00:00 PM - 4:00:00 PM

238 Global Burden of Occupational Disease, Climate, Pandemics, and Planetary Health - Roadmap to Universal Occupational Health Coverage through Basic OH Services

The global burden of disease (GBD) attributable to occupational and environmental health (OEH) risks is rapidly changing as traditional definitions of estimates must now account for the large and rapidly worsening impacts on working conditions of permanent manmade climate change and the hideous global SARS-2 (COVID-19) pandemic. Climate is now a global crisis of children's rights, our future workforce, and already poses serious worker health and safety challenges due to heat, drought, massive fires, floods, severe storms, sea rise, infectious disease outbreaks, human migration, civil strife, and wars. Most pronounced perhaps is the impact and downstream effects on migrant workers and refugees looking for work, within and among nations. The COVID-19 pandemic is also an occupational disease (OD) of widespread death and disruption for workers and their families, as well as to businesses. Indeed, our home, the Earth itself, is in peril if we do not integrate and align OEH practices with a farsighted view to protect Planetary Health, not just of humans, but of the natural world that sustains us.

Learning Objectives

- Describe how individuals can play a role in a brighter, more just and healthier future for the world's 7.8 billion people.
- Discuss how to achieve a 'vision zero' for occupational diseases worldwide.
- Describe the four key Sustainable Development Goals for 2030 endorsed by the United Nations in 2015.

Faculty

Thomas H. Gassert, MD MSc



4:15:00 PM - 5:30:00 PM

Perspectives on the Future of Occupational and Environmental Medicine

What is the future of Occupational and Environmental Medicine (OEM)? This plenary session will provide an overview of some of the important issues facing OEM. The current state of work and the potential future of work will be discussed as well as the importance of OEM physicians and leadership to be agile in facing the challenges of the future. Other topics include diversity, equity, and inclusion of all groups, evolving wellness and resiliency needs of employees, and the implications for international OEM. The session will end with a panel discussion encompassing multiple perspectives, taking attendees questions and comments, on where we go from here and on what lies ahead.

Topics

- Overview: OEM Education/Current & Future State
- Facing Emerging and Infectious Threats
- Sustainability and OEM
- Telehealth and OEM
- The Future of Work
- Panel Discussion/Questions and Answers

Learning Objectives

- Assess how OEM has changed and the need to be agile to continue to meet the needs of workers and the workplace
- Discuss plans to ensure the viability of OEM
- Discuss evolving competencies necessary for residents and OEM physicians
- Explain the importance of strengthening health systems and of contingency planning to meet occupational threats
- Describe changes in work and the work environment affecting OEM
- Recognize elements in the changing nature of work and changes necessary to meet the challenges

Faculty

Manijeh Berenji, MD, MPH, FACOEM Edward Emmett, MD, MS, FACOEM Tee L. Guidotti, MD, MPH, DABT, FACOEM Judith McKenzie, MD, MPH, FACPM, FACP, FACOEM



7:00 pm - 9:00 pm

Grand America Courtyard Social Event Dinner, Drinks, and Dueling Pianos

Tickets are \$125 per person

Eat, drink, and listen to dueling pianos among the stars! The beautiful Courtyard of the Grand America Hotel provides the perfect setting for this social event.

Registration includes a lavish buffet and two drink tickets, as well as the opportunity to support the Occupational & Environmental Health Foundation.

OEHF builds resources and creates opportunities to train occupational medicine professionals for the future. Donate to this wonderful organization by requesting a song during the evening (\$20 donation suggested).

The perfect way to relax after a busy day in the sessions!



Tuesday, May 3, 2022

8:00 am - 10:00 am Bus Departs: 7:30 am

Printing Services & Global Distribution Services of The Church of Jesus Christ of Latter-Day Saints Worksite Visit (Separate registration required)

See firsthand how safety conditions are managed in a printing and distribution center, including handling materials, operating machinery, using heavy equipment, and exposure to chemicals and noisy environments.

LDS Printing Services is the central point for printed products that are distributed worldwide by the Church of Jesus Christ of Latter-Day Saints. In addition to a variety of printing operations involving a variety of technologies, Printing Services also produces sacrament cups, giclee fine art prints and framing services. Global Distribution Services personnel effectively provide unique products to a worldwide Church membership.

Learning Objectives

- Discuss the hazards associated with a variety of printing technologies.
- View firsthand controls to maximize ergonomics for those working in material handling.
- View hundreds of pieces of machinery dedicated to the binding and production of various printed products.



Tuesday, May 3, 2022

8:00 am - 10:00 am Bus Departs: 7:00 am

MCWANE DUCTILE WORKSITE VISIT (Separate registration required)

" Do it Safely, or Not at All" provides the directional emphasis for a culture of safety excellence throughout McWane Ductile.

Despite the demanding safety and environmental challenges of a foundry, McWane is committed to providing its employees a safe, environmentally compliant workplace. They honor that commitment every day by implementing and monitoring the highest standards and safety policies, developed by experts in the industry.

This is done with the assistance of professional safety and health personnel, internal and external thirdparty safety audits, management commitment and team member engagement, metrics that focus not on trailing injury rates but on proactive leading indicators, and through cooperative partnerships and meetings with federal, state and local regulatory agencies.

This intensive tour will focus on:

- Molten metal hazards
- Guarding
- Lockout tagout
- Crane, forklift, and below the hook lifting devices
- Personal Protection Equipment
- Ergonomic issues

Learning Objectives

- Discuss the importance of the Initial New Hire Physical.
- Explain the need for a random drug test.
- Describe the physical demand that is required for a team member to return to a full duty status after a personnel injury.



Tuesday, May 3, 2022

8:45:00 AM - 10:15:00 AM

301 Integrating Evidence-based Causation and Risk Factor Analysis into the Treatment of Musculoskeletal Disorders by the Primary Occupational Medicine Physician

Occupational medicine physicians often treat musculoskeletal disorders in the absence of clear information concerning causation. Terms such as 'acute-on-chronic', 'repetitive stress' or 'cumulative trauma' attempt to explain the onset of symptoms even when an obvious mechanism of injury is not available. This approach fails to provide an accurate assessment of risk factors that contribute to an injured worker's disease and may even mislead the treater concerning the primary risk factors for injury. A well-defined causation analysis based upon quality epidemiological evidence and assessment of ergonomic and other risk factors is the foundation of successful musculoskeletal disease treatment. This session provides a case-based, interactive discussion of the epidemiologic evidence, ergonomic risk factors, and how to apply this evidence to inform causation and refine clinical management of lateral epicondylitis, rotator cuff tendinopathy, cervical radiculopathy and low back pain. Attendees are encouraged to bring challenging musculoskeletal cases to discuss with faculty.

Learning Objectives

- Describe the epidemiological evidence supporting work-relatedness for common musculoskeletal disorders: Lateral Epicondylitis, Rotator Cuff Tendinopathy, Cervical Radiculopathy, and Low Back Pain.
- Define the common ergonomic risk factors, such as force, repetition, posture, and other objective measurements of the relationship between employee and workstation and describe which risks do, and do not lead to these specific musculoskeletal disorders. Explain how ergonomic analyses may identify the presence or absence of these risk factors and mitigate or eliminate them.
- Explain why how knowledge of epidemiology-based and experience-based risk factors inform clinical management of each of these common musculoskeletal disorders, including assessing causation and promoting return-to-work/stay-at-work rehabilitation strategy.

Faculty

David C. Caretto, MD MPH Rajiv Das, MD Kurt T. Hegmann, MD, MPH, FACOEM Andrew Merryweather, Ph.D;



8:45:00 AM - 10:15:00 AM

302 Extreme Environments: Military Influences on Preventive Medicine

Workers in extreme environments, specifically military personnel are often required to operate in extreme environments, the hazards of which classically trained Occupational & Environmental (OEM) physicians may be only cursorily familiar. Throughout history, work in extreme environments has required innovative approaches to prevent environmental exposure-related injury and illness. Before Aerospace Medicine became a certified specialty, advances in aircraft design and capabilities drove a need for individuals with an intimate understanding of the physiologic impacts of working at high altitudes. The specialty evolved from a handful of military 'Flight Surgeons' in WWI to residency trained experts in military/civil aviation and space medicine but there are linkages to the past that might be surprising. Military physicians / researchers have contributed substantially to scientific knowledge related to physical hazards like temperature, pressure, and dynamic forces that link to OEM practiced today. Hyperbaric and Undersea Medicine practice also has lineage in military working environments in ocean depths.

Learning Objectives

- Discuss how work in military extreme environments has influenced the practice of preventive medicine today.
- Differentiate the approaches historically employed by the military to protect service members in hyperbaric and hypobaric environments.
- Incorporate lessons learned from military operations in extreme climates into modern worker protection.

Faculty

Pamela L. Krahl, MD, MPH, FACOEM, FACP Judith G. McKenzie, MD, MPH, FACPM, FACP, FACOEM Verba Moore, MD, MPH, FACOEM Richard J. Thomas, MD, MPH, FACOEM



8:45:00 AM - 10:15:00 AM

303 Burn Bright, Burn Out: signs, symptoms and support for a pandemic of compassion fatigue

Recent research suggests burnout and compassion fatigue are affecting healthcare workers in unprecedented numbers. Occupational medicine practitioners face a multifaceted version of the issue as they steward worker well-being within a complex network of stakeholders and regulations. During this interactive session, interdisciplinary faculty of behavioral science and expert occupational nurses will explore nuances, neuroscience, and interventions for compassion fatigue, burnout, and related syndromes at the micro, mezzo, and macro level in an adult-learning style format. The team will break down Burnout Syndrome into its component parts to demonstrate how and why it happens and present evidence-based tools from the fields of counseling and psychology that identify and reverse its effects. A candid prognosis and case-study interventions will be reviewed to highlight known indicators of improved resilience for individuals, teams, and organizational culture. Attendees will have the opportunity to connect, practice anti-burnout techniques, and discuss ideas in small groups on how to bring these ideas back to their organizations.

Learning Objectives

- Identify severity level of emotional exhaustion in themselves and their patients, including compassion fatigue, burnout, tertiary stress syndrome, traumatic stress syndrome (and their relation & differentiation to job performance issues).
- Differentiate the component parts of empathy, and thinking styles that lead towards- or away from- compassion fatigue. Attendees will be able to utilize techniques of Rapid Emotive Behavioral Therapy as well as Macro-Applied Behavioral Analysis and Cultural Change Theory to build resilience in themselves, workers, teams and organizations.
- Identify and strengthen indicators of successful interventions, including healthy, resilient thinking patterns as identified in Cognitive Behavioral Therapy, and Organizational indicators identified by IO Psychologists that reveal improved resilience in teams and organizations.

Faculty

Kelly Makino, MSW, EdD Andrea J. Warner, RN, BS Launi Walker, BSN, CNP in progress



8:45:00 AM - 10:15:00 AM

304 Global Ergonomics: Successful and Sustainable Strategies for the Post-Pandemic World

During the COVID-19 pandemic, the World Bank Group's Ergonomic Team (WBGET) successfully developed an agile ergonomic program in an effort to reach 37,000 staff, representing 176 nationalities, in 170 offices, and in 133 countries. Over a 20-year period, the program evolved based on staff needs and technological developments from a paper-based program to a flexible, hybrid program with online and in-person multi-faceted services. Initially limited by its primary reach to the Washington DC Headquarters, the program adapted during the pandemic by providing virtual one-on-one services to Headquarters staff in their new 'home offices', standardizing services, presenting webinars on 16 distinct topics, and expanding to provide virtual global consultations ultimately reaching staff in 112 countries. Program adaptations continue for the ever-changing global and diverse work environment by the:

- Development of the Africa Regional Hub in Kenya
- Launch and completion of all-staff Health and Safety Risk Assessment
- Enhancement of disability inclusion initiatives
- Preparation of sustainable strategies for future work environments.

Learning Objectives

- Utilize employee survey data to assess staff needs, outline goals of an ergonomics program, identify program components, and implement monitoring and evaluation framework for measuring ergonomic program's impact. Participants will understand regional differences in the creation and implementation of specific components of an ergonomics program.
- Recognize the ways in which an ergonomic program can empower the inclusion of staff with permanent or temporary disabilities, and support work productivity through disability accommodation. Attendees will understand how, through collaboration with all stakeholders within an organization, the ergonomic program contributes to an inclusive environment.
- Identify sustainable, innovative, and flexible ergonomic strategies and solutions for all components of the future hybrid work environment. These will involve a 'work from anywhere' perspective to include home, traditional and flexible workspaces, as well as travel scenarios. The application of IT technologies to enhance multi use functions for all devices will be shown as well.

Faculty

Naomi Abrams, OTD, OTR/L, CEAS Ann-Marie Bolton, PT, DPT, CEES Stephanie Coleman, DPT, AOEAS Jasminka Goldoni Laestadius, MD, PhD, FACOEM Maria Malca, BA, RYT-200, CPT Catherine Wambua, PT, DPT, CEAS Sophia Woldemicael, MT(ASCP)



8:45:00 AM - 10:15:00 AM

305 Current and Complicated Issues in Commercial Driver Medical Certification

This session will provide an update on the National Registry of Certified Medical Examiners and other issues which affect commercial driver medical examiners. Topics will include recent or pending regulatory changes including status of the Medical Examiner Handbook, proceedings of the Medical Review Board and discussion of common areas of confusion for the commercial driver medical examiner.

Learning Objectives

- Utilize new and complicated information on the NRCME
- Describe appropriate certification decisions in the absence of official guidance
- Identify resources for CMV driver certification determinations

Faculty

Natalie P. Hartenbaum, MD, MPH, FACOEM Christine Hydock Douglas Marcello



8:45:00 AM - 10:15:00 AM

306 Patients, Populations and Public Health: Experiences from the Frontline to Capture and Standardize Occupational Data and Why It's Important for Primary Care

Occupational Date for Health (ODH) is a framework developed by researchers at the National Institute for Occupational Safety and Health (NIOSH) to standardize and capture work information into electronic health records. This information contains key social determinants of health and has been submitted for inclusion into version 3 of USCDI (United States Core Data for Interoperability). The ability to use standardized job and industry data in general electronic medical records will drive public health policy, create new areas of inquiry and research, and improve and inform better primary care and preventive health measures. In this session we will describe present and planned use of this framework in general medicine and discuss future development of ODH including ways in which additional pilot programs may be developed. Patient care, population health, and public health scenarios will illustrate how ODH can be used to mitigate disparities, address the needs of underserved communities, and support emergency response.

Learning Objectives

- Describe the importance of standardizing work information so it can can be used for general medical care, research and public health
- Explain how the Occupational Data for Health framework can be operationalized
- Contribute to efforts to include ODH in the primary electronic health record

Faculty

Manijeh Berenji, MD, MPH, FACOEM Michele Kowalski-Mcgraw, MD MPH FACOEM Robert K. McLellan, MD



8:45:00 AM - 10:15:00 AM

307 Advocating for OEM on an International Level - A Call to Action

Improving the health of workers by increasing access to Occupational Health services remains a major theme of international health organizations, amplified by the COVID-19 epidemic. However, data shows that the number of Occupational Medicine specialists is decreasing. This pipeline problem is multifactorial and global. The International Occupational Medicine Society Collaborative (IOMSC) has developed two detailed toolkits to help OEM societies promote the specialty and thrive. These toolkits are not well known and have been underutilized. A 2019 survey of IOMSC member countries on OEM education and certification provided a multitude of examples of real-life pipeline problems that the toolkits were designed to help address. This session will use anonymized examples of problems or issues related to the OEM pipeline, obtained in the recent IOMSC member country survey, to illustrate how the toolkit content could be applied to support the expressed needs of the respondents. Our goal is to publicize the availability of these valuable resources, while providing case-based examples of applying toolkit ideas to solve advocacy or organizational problems.

Learning Objectives

- Explain how the 'health' of the specialty of Occupational and Environmental Medicine around the world is critical for protecting and promoting the health of workers, organizations and communities, with the opportunities magnified by learnings from the COVID-19 pandemic.
- Describe the two toolkits offered by the IOMSC to promote the specialty of Occupational and Environmental Medicine.
- Apply the content of one of the toolkits to a real-life Occupational and Environmental Medicine pipeline challenge that was shared by an IOMSC member country in a recent international survey on OEM education.

Faculty

Marianne Cloeren, MD, MPH, FACOEM, FACP Peter A. Connaughton, MBBCH, MBA, FAFOEM, FACOEM Richard JL. Heron, MD, FRCP, FACOEM Ron R. Loeppke, MD, MPH, FACOEM Herman O. Spanjaard, MD, MPH, FACOEM



10:45:00 AM - 12:15:00 PM

308 An Initiative to Safeguard and Promote the Mental Health of Health Workers - Part 1: Burden and Best Practices

As part of the American Rescue Plan, CDC/NIOSH received funding to deliver a national education and awareness campaign for the nation's health employers and nearly 20 million workers in the healthcare sector, and emergency medical technicians and public health workers. The initiative targets protecting and improving workers' mental health and emotional well-being through prevention, awareness, and intervention. Challenges for workers include unprecedented working conditions, even longer work hours, extreme exposure to human suffering/death, and increased risk for personal exposure/harm. This first of two sessions presents an initiative overview and describes approaches to characterizing the burden of mental health issues and evidence-based interventions, best-practices, and current resources. The campaign seeks to prevent and address risks for mental health effects such as work-related stress, burnout, depression, anxiety, fatigue, substance use disorder, and suicidal behavior.

Learning Objectives

- Describe elements of the Health Worker Mental Health Initiative.
- Discuss approaches to characterizing the burden and nature of mental health outcomes in health workers.
- Discuss the evidence base for some interventions, best-practices, and resources regarding mental health issues in workers.

Faculty

W. Kent Anger, PhD, MA Thomas R. Cunningham, PhD Suzanne M. Marsh, MPA Sudha P. Pandalai, MD, PhD



10:45:00 AM - 12:15:00 PM

309 The Globalization of Occupational and Environmental Medicine - Give and Take

This session shall discuss strategies that will propel ACOEM into a global position. Globalization of ACOEM is not only desirable but may be necessary for it's future health. The world is looking for the information and resources that ACOEM possesses and is seeking to advance to the highest levels as experienced by the US and Europe. We will discuss strategies that will allow ACOEM to become a global leader. We will also discuss partnering with other organizations and international groups such as the United Nations and the World Bank to accelerate the advancement of all nations to the highest standards that currently exist.

Learning Objectives

- Identify what is lacking at the global level with regard to healthcare providers, government agencies and employers
- Facilitate learning for US based providers regarding global issues in occupational and environmental health
- Develop strategies to facilitate free communication between US based providers and the rest of the world. This will also provide a wide range of opportunities for US providers that currently don't exist.

Faculty

Warren Silverman, MD, FACOEM Jean Q. Xiao, MD



10:45:00 AM - 12:15:00 PM

310 Occupational Heat-related Illnesses: Gaps, Challenges, and New Guidance

Heat-related injury occurs when workers are exposed to extreme heat or work in hot environments. Climate change is increasing the frequency, duration, and intensity of heat waves, affecting workers in both outdoor and indoor settings. Occupational health providers need to be aware of the range of occupations at risk for heat exposure, potential adverse health outcomes of heat-related injuries (HRI), and risk reduction strategies that employers and employees can use to prevent work-related HRI. This session will start with a NIOSH case series on heat stroke fatalities in firefighter cadets during training then provide examples of heat-related acute kidney injury from OSHA's case files. The session will end with a presentation on new ACOEM guidelines on occupational heat-related illnesses.

Learning Objectives

- Identify heat stroke risk factors unique to cadets in firefighter training programs and review prevention strategies firefighter training programs can use to reduce the risk of cadet heat stroke deaths.
- Describe kidney risk in evaluating current and recurrent heat stress and the prevalence of acute kidney injury from heat-related injury.
- Explain ACOEM's new guidance for OEM providers who serve workers and employers in industries where heat exposure occurs.

Faculty

James Butler, MD, MPH Judith Eisenberg, MD, MS Aaron W. Tustin, MD, MPH



10:45:00 AM - 12:15:00 PM

311 Resident Research Presentations Part I *More information will be available in March 2022*

Moderator John D. Meyer, MD, MPH, FACOEM



10:45:00 AM - 12:15:00 PM

312 Evaluating Post-COVID Conditions

Post-COVID conditions (PCCs) have emerged as a major concern in recovery from acute COVID-19 illness, and developing rational return-to-work practices for individuals with these disorders is challenging. This session will begin with a brief overview of PCCs, including incidence, prevalence, pathology, and specific considerations in evaluation. It will address the challenges posed by nonspecific complaints, and explore potential underlying factors, including behavioral health influences and the contribution of medically unexplained physical symptoms (MUPS). The session will also review the potential contributions of administrative and medical iatrogenicity, and recognize the unusual stress that PCCs place on clinicians. Finally, it will delve into the association of PCCs with syndromic illnesses, particularly myalgic encephalomyelitis/chronic fatigue syndrome; the roles of information and disinformation; and the proliferation of dedicated PCC evaluation and care centers.

Learning Objectives

- Review current knowledge of the incidence, prevalence, and underlying pathology of PCCs.
- Discuss considerations in managing patients with PCCs, including nonspecificity of symptoms, and the potential contribution of behavioral health influences and medically unexplained physical symptoms.
- Formulate informed, balanced, and rational approaches to stay at work/return to work in individuals suffering from PCCs.

Faculty

Garson M. Caruso, MD, MPH, CLCP Les Kertay, PhD ABPP



10:45:00 AM - 12:15:00 PM

313 Pain in the Butt: A Comprehensive Examination of Posterior Thigh Pathology including Ultrasound Guided Diagnosis and Treatments

This course will teach participants diagnostic algorithms and treatment protocols for low back disorders. The session will also teach course participants how to return workers back to work at an accelerated rate. There will be a focus on discriminating types of etiology of posterior thigh pain and low back pain and best practices in the treatment once a clear diagnosis is made. The seminar will also describe clinical pearls as it related to the ultrasound examination of the posterior thigh and how to intervene appropriately with efficacy, precision, and safety.

Learning Objectives

- Evaluate and discriminate low back pain etiology
- Describe conservative and interventional approaches to return patients to work
- Incorporate physical exam findings and diagnosis in the treatment of low back pain.

Faculty Yusef Sayeed, MD



10:45:00 AM - 12:15:00 PM

314 We've Been Working on the Railroads: Why Occupational Medicine for Railroading is Unique

This session will explore the rich history of railroading in the US and Canada, and how railroading impacted not only our culture but the development of medicine. We will discuss regulatory requirements in the US and Canada and how injury care in railroading differs from the traditional Workers' Compensation arena. Finally, we will provide a brief overview of the dynamic and varied occupational environment workers may encounter to aid providers who may encounter railroad workers in their practices.

Learning Objectives

- Describe the historical contribution of railroading to occupational medicine and American culture.
- Discuss the myriad of regulatory requirements in the US that apply to railroad workers and understand how they impact and influence the culture of railroading. This will include an overview of the Canadian Railway Medical Rules, including the development and application of the fitness for duty guidelines for Canadian railroad workers.
- Describe the dynamic occupational environment in which railroad workers operate to better understand caring for railroad workers.

Faculty

Theodore Aquino, DO, MBA, MSPH, FACOEM Laura G. Gillis, MD, MPH, FACOEM Natalie P. Hartenbaum, MD, MPH, FACOEM George A. Lambros, MD



1:45:00 PM - 3:15:00 PM

315 An Initiative to Safeguard and Promote the Mental Health of Health Workers - Part 2: Interventions and Increasing Awareness, Reducing Stigma, and Lowering Barriers to Mental Health Care

As discussed in part 1, health workers have faced unprecedented challenges in recent times, including very difficult working conditions, even longer hours of work, higher levels of exposure to human suffering and death, and increased risks for personal exposure and harm. This second of two sessions on an initiative coordinated by CDC/NIOSH for a national education and awareness campaign on mental health issues for the nation's health workers will discuss tech interventions in addressing healthcare worker mental health and approaches to increasing awareness, reducing stigma, and lowering barriers to accessing mental health care. This session will also include a discussion of future directions and issues and a question/answer period to open a dialogue with the occupational medicine community regarding this initiative.

Learning Objectives

- Describe considerations in selecting and implementing technology interventions in mental health promotion and protection programs for healthcare organizations.
- Discuss approaches to increasing awareness and reducing stigma of mental health care utilization.
- Describe ways in which the role of lowering barriers to mental health care and work organization variables can be examined regarding mental health issues for health workers.

Faculty

W. Kent Anger, PhD, MA Thomas R. Cunningham, PhD Suzanne M. Marsh, MPA Lee S. Newman, MD, MA Sudha P. Pandalai, MD, PhD Bernice A. Pescosolido, PhD David N. Weissman, MD



1:45:00 PM - 3:15:00 PM

316 Meeting the Challenges of COVID -19 in the Entertainment Industry Part 2

This session is a follow-up to the one presented at Virtual AOHC 2021, and describes how an entertainment company approached reopening business with its focus on health and safety protocols for employees. During the session, we will cover the diverse businesses within the entertainment industry. This includes how cast and crew continue to work in the United States Television and Studio production environment and the return of cast and crew to the Parks, Resorts and Cruise line businesses with periodic COVID-19 testing , contact tracing, constantly updating return to work protocols and a COVID vaccine mandate. These efforts included meeting union as well as public health requirements in numerous jurisdictions, including the Conditional Sail Order by the CDC. This remains a constantly evolving process, highlighting the need for medical and public health expertise to the leadership team. Some of the latest challenges covered are international travel and vaccination protocols , vaccine mandates and coordination of measures with local and national public health officials.

Learning Objectives

- Describe the challenges of COVID-19 in the entertainment industry including safety, testing, travel and vaccination.
- Explain the challenges of a COVID vaccine mandate.

Faculty

Pamela Hymel, MD, MPH, FACOEM Lori Schwartz, MD, FACOEM Jeff Tzeng, DO, MPH, MBA



1:45:00 PM - 3:15:00 PM

317 Current Issues and Developments for Underserved Occupational Populations

OEM clinicians are typically not formally trained to recognize the obstacles to equitable health and safety for underserved occupational populations, many of which have been designated as Essential Workers. Yet, as a specialty, we have unique training and perspective that places us in a role to not only recognize but also to mitigate and prevent occupational and environmental threats to the health and safety of these integral worker populations and their communities. Specifically, this Session will explore and discuss the topics of the Covid-19 pandemic, climate change/heat exposure, and the role of Federal Policy on the health and safety of underserved workers and their communities. Moreover, attendees will be exposed to the challenges faced by clinicians working with these groups of workers along with potential solutions.

Learning Objectives

- Describe the inequitable exposure risk and treatment access of some specific underserved occupational populations.
- List some of the health and safety gaps created during the Covid-19 pandemic and by environmental heat extremes faced by outdoor workers.
- Explain the current state of Federal Policy vis a vis equitable health and safety protections for underserved occupational populations and their communities.

Faculty

Alexis Guild, MPP Scott D. Morris, MD, MPH Samah Nour, MD, MPH, FACOEM Marysel Pagan-Santana, DrPH, MS



1:45:00 PM - 3:15:00 PM

318 Resident Research Presentations Part II *More information will be available in March 2022*

Moderator John D. Meyer, MD, MPH, FACOEM



1:45:00 PM - 3:15:00 PM

319 MRO Controversies

This year's MRO Controversies will include the always popular MRO Jeopardy hosted by Dr. Doug Martin. Other speakers will discuss recent and pending changes in the regulatory requirements which will affect Medical Review Officers and the current status of Cannabis laws in the US.

Learning Objectives

- Discuss recent and pending changes in Federal drug and alcohol testing
- Describe complex and confusing issues in MRO result interpretation
- Explain the current state of cannabis laws and the impact on the workplace

Faculty

Natalie P. Hartenbaum, MD, MPH, FACOEM Douglas Martin, MD FACOEM FAAFP FAADEP Kathryn J. Russo, JD



1:45:00 PM - 3:15:00 PM

320 The Occupational and Environmental Medicine Physician During the Covid-19 Pandemic: Challenges of Caring for Those Who Care

OEM physicians working in health care organizations are charged with protecting the health, safety and well-being for health care providers. During the COVID-19 Pandemic, health care workers have been hailed as heroes, but then later as villains when they have refused vaccination, even as they have become ill. And, during this pandemic, caring for patients who have refused vaccination, sometimes very publicly and vehemently has challenged many exhausted clinicians, some of whom have had to ration care during crisis conditions in overwhelmed hospitals. This session will feature a panel of a medical ethicist, a psychiatrist and two OEM providers charged with caring for HCWs. They will engage in a dialogue with each other and the audience to illuminate an ethical approach to OEM practice in health care during a pandemic.

Learning Objectives

- Describe the challenges of caring for health care workers during the COVID-19 pandemic
- Engage in a dialogue designed to illuminate an ethical approach to OEM practice during the pandemic

Faculty

Margaret P. Battin, PhD Jeremy Biggs, MD, MSPH, FACOEM Peter Bolo, MD Robert K. McLellan, MD Rachel Leibu, MD, MBA, MS, FACOEM



1:45:00 PM - 3:15:00 PM

321 OEM is not Occupational Therapy: How to Champion OEM and Advocate for Your Work

Safe and healthy workplaces have always been important. The COVID-19 pandemic highlighted the essential and urgent need to define safe work practices and ensure healthy work environments. Occupational and environmental medicine providers are more vital than ever - but how do you market yourself and your specialty to other medical professionals, employers, and the public? How do you promote occupational medicine when it is frequently misunderstood? Join grassroots OEM professionals as we coach you on creating personalized presentations, social and print media products, and customized OEM pitches for various stakeholders. In this workshop, you will create an individualized plan using your skills and assets and identify strategies for success. With your help, we will customize a feedback loop to evaluate what worked well, and what further tools you need to help increase visibility and champion OEM.

Learning Objectives

- Identify at least two ACOEM tools to help increase awareness of OEM within your community.
- Create an individual plan for audience engagement to promote the field of OEM / awareness of occupational medicine to implement within one year.
- Provide feedback to ACOEM's Council on External Relations and Communications (CERC) on the success of your outreach efforts prior to AOHC 2023.

Faculty

William G. Buchta, MD, MPH, MS, FACOEM Constantine J. Gean, MD, MS, MBA, MRO, FACOEM Kathryn L. Mueller, MD, MPH, FACOEM Charlie Peckman, BA Erin L. Ransford, BSPH



3:30:00 PM - 4:30:00 PM

322 TED 6: The Cutting Edge of Occupational and Environmental Medicine

The ACOEM Teaching Academy is pleased to sponsor a sixth TED session, featuring exciting brief presentations by outstanding speakers on cutting edge OEM topics. 2022 topics will be selected based on relevance to the 2022 AOHC. Each TED 6 speaker will present an area of passionate personal interest that demonstrates one of OEM's top contributions to employers, workers and communities. TED 6 speakers will demonstrate their mastery of communication effectiveness, having been supported by Teaching Academy coaches to advance from 'good' to 'great' to 'outstanding' presentations. This is not just about OEM data, this is about those things in our field that inspire the heart of OEM physicians to pursue our noble calling.

Learning Objectives

- Describe how to create memorably effective communications in which speakers match their own passions to the needs of an audience
- Utilize simple, powerful ideas and effective techniques to quickly explain OEM's unique benefits to workers, employers and communities
- Be inspired by and delight in seeing effective communication from emerging OEM leaders

Faculty

Kent W. Peterson, MD, FACOEM Constantine J. Gean, MD, MS, MBA, FACOEM



3:30:00 PM - 4:30:00 PM

323 Global Pesticide Use and Underlying Environmental Health Disparities: A Review of the Literature and Current Best Practices

According to the United Nations' Food and Agricultural Organization, total pesticides trade reached approximately 5.6 million tons of formulated products in 2019, with a value of USD 35.5 billion (UN 2021). Pesticide use increased in the 2010s by more than 50 percent compared to the 1990s (UN 2021). Toxic pesticides continue to be used internationally and endanger human health, especially those vulnerable populations directly in contact with these chemicals, such as immigrant workers. The Rockefeller Foundation Lancet Commission on Planetary Health, the UN Human Rights Council, and the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services have all identified pesticides as being among the most serious threats to health and the environment (Jepson et. al. 2020). This session aims to review the status of pesticide usage globally and in the United States, identify worker populations most impacted by these pesticides, assess the current regulatory frameworks, identify new innovations in pesticide classification, and discuss communication strategies to pertinent stakeholders about pesticides and necessary safety measures.

Learning Objectives

- Describe global pesticide trends.
- Recognize disparities in pesticides exposure.
- Realize knowledge gaps in environmental health.

Faculty

Manijeh Berenji, MD, MPH, FACOEM Kushinga M. Bvute, MD, MPH Warren Silverman, MD, FACOEM



3:30:00 PM - 4:30:00 PM

325 Cannabis legalization safety challenges for employees and employers.

Cannabis legalization poses safety challenges for employees and employers. This session will take a look at the current regulatory picture for cannabis as well as emerging trends and public health concerns for employers. Results from a recent survey conducted by NSC show employers need improved policies around cannabis both on and off the job as well as solutions for addressing cannabis impairment

Learning Objectives

- Explain awareness, attitudes and behaviors relating to cannabis, from both the employer and the employee perspective
- Describe workplace policies around marijuana usage (e.g. marijuana-free workplace, restrictions with the exception of medical marijuana, etc.)
- Identify supports employers and employees most desire and would benefit from

Faculty

Katie Mueller, BA



3:30:00 PM - 4:30:00 PM

326 Covid-19 and Mental Health: the second pandemic

This presentation will discuss the short and longer term mental health implications of the Covid-19 pandemic. We discuss the biopsychosocial implications of: 1) the disruption of life leading to a lack of agency and worries about mortality usual not experienced until the end of life, 2) the impact of social isolation on mood, anxiety and the the brain, 3) the impact that the blurring of work and home roles have had, 4) the impact of the pandemic of children of different developmental stages, 5) the role of trauma, stress, grief, and the development of PTSD on individuals, and 6) the longer term impact of chronic Covid symptoms.

Learning Objectives

- Explain the impact of the lack of agency on one's mental health
- Describe how the pandemic caused an increase in anxiety and depressive symptoms
- Discuss some of the causes of stress and burnout as well as psychiatric disorders in providers

Faculty

Mark H. Rapaport, MD



3:30:00 PM - 4:30:00 PM

327 How OEM can better interface with National and Regional Resources for Pandemics and Natural Disasters

OEM physicians interacted with a variety of employers, healthcare systems, communities and agencies during the COVID-19 pandemic. This session will provide guidance to promote better communications and interactions with local, regional and national agencies. Physicians from ASPR (HHS Office of the Assistant Secretary for Preparedness and Response) and ASTHO (Association of State and Territorial Health Officials) will provide advice on how OEM physicians can work together with local and regional agencies to improve public health responses.

Learning Objectives

- Describe how to be introduced to the local and regional agencies.
- Demonstrate value to the local and regional agencies for futures incidents.
- Discuss how to stay in contact with these leaders.

Faculty

Michael R. Anderson, MD, MBA, FAAP, FCCM, FAARC Robert M. Bourgeois, MD, MPH, FACOEM Marcus Plescia, MD, MPH



3:30:00 PM - 4:30:00 PM

328 Lead Surveillance at US Air Force Firearm Ranges with Multiple Weapon Systems

Joint Base San Antonio--Lackland hosts a variety of firearms training for military recruits, technical training students, and individuals permanently assigned to the installation across a spectrum of weapon systems. Firearms instruction is carried out by Combat Arms Instructors on several ranges. Over the past years, Lackland has noted periods of elevated blood lead levels among these workers. This presentation will review typical operations at a military firing range, past history of medical complaints of workers, and a review of periodic lead surveillance. The presentation will include discussion of past mitigation interventions consisting of administrative controls and personal protective equipment. The presentation will also highlight the investigative responses taken when lead levels were unexpectedly elevated in an intriguing clinical case. This will be a tandem presentation by both Lackland OM physicians.

Learning Objectives

- Describe the components of a lead surveillance program at a firearm range, including mitigation measures.
- Address elevated lead levels in employees at a firearm range.
- Appropriately investigate unexpected elevations in lead levels in employees when mitigation measures are already in place.

Faculty

Steven M. Hetrick, MD, MPH, FACOEM Stephen D. Kasteler, MD, MPH



4:45:00 PM - 6:15:00 PM

General Session: Patterson Lecture

The Patterson Lecturer honors the memory of the late William Patterson, MD, FACOEM, an ACOEM Board member who was chair of the Committee on Ethical Practice in OEM. Dr. Patterson led the charge of revising ACOEM's Code of Ethics.

There Will be a Next Time...Can We Do Better?

- Doing the Right Thing--The Four Rights
- Three Tiers of Preparedness
- The Art and Science of Ethical Population Focused Prevention in the Context of Humility

John Dreyzehner, MD, MPH, FACOEM

Former Director, Center for Preparedness and Response, CDC, and former Commissioner of Health in Tennessee





9:15:00 AM - 10:15:00 AM

401 The ACOEM Ambassador Program

The occupational medicine workforce is aging, both in the United States and around the world. In addition, some formal occupational medicine residency programs have experienced funding challenges and even closures. In response to these realities, recent ACOEM leadership has devoted significant attention and effort to improving the pipeline of medical trainees into the specialty. Compared to other specialties, occupational medicine is historically underrepresented in undergraduate medical education. Medical students (and residents in other fields) are unlikely to pursue training in a specialty to which they have received little to no exposure. To increase the awareness of medical trainees regarding occupational medicine as a specialty and a potential career path, ACOEM has developed the Ambassador Program. This initiative endeavors to empower and incentivize occupational medicine professionals to spread the word about the specialty and help to recruit the occupational medicine specialists of the future. In this session, the ACOEM Ambassador Program, its resources, goals, and benefits will be presented.

Learning Objectives

- Identify historical data and trends that suggest an under-representation of occupational medicine in standard medical education.
- Discuss the resources and incentives available through the ACOEM Ambassador Program.

Faculty

Nicolette Davis, MPAS, PA-C Nathan M. Jones, MD, MPH Pamela L. Krahl, MD, MPH, FACOEM, FACP



9:15:00 AM - 10:15:00 AM

402 How to Be an Environmental Medicine Physician Full-Time – Current Landscape and Future Opportunities for Growth

Current occupational and environmental medicine (OEM) residency training incorporates clinical instruction with the goal to practice occupational medicine in a variety of settings including academia, hospital-based and free-standing clinics, private practice, corporate, public health, non-profit, government, and regulatory agencies. While a number of OEM clinicians do work primarily in an environmental health capacity, these roles are primarily within the non-profit/government/regulatory spheres. With the growing public discourse about environmental health topics, including climate change and environmental justice, OEM clinicians with a strong environmental medicine interest and supporting credentials who want to work full-time outside of non-profit/government/regulatory agencies have limited opportunities. This session plans to discuss current job prospects in Environmental Medicine for graduating OEM residents as well as those early, mid, and late career OEM clinicians who want to transition to Environmental Medicine full-time.

Learning Objectives

- Review current full-time Environmental Medicine career paths for post-residency, early, mid, and late career OEM clinicians.
- Discuss current obstacles to working in Environmental Medicine full-time.
- Assess future of Environmental Medicine and role the OEM clinician can take to engage pertinent stakeholders in hiring an OEM clinician to do primarily environmentally-related work (i.e. Chief Sustainability Officer).

Faculty

Manijeh Berenji, MD, MPH, FACOEM Shilpa N. Gowda, MD, MPH, FACOEM Warren Silverman, MD, FACOEM



9:15:00 AM - 10:15:00 AM

403 A Legislative Update of federal and state legislation during the COVID-19 pandemic

This presentation will discuss the Post COVID medical-political climate with analysis of Federal response through its existing agencies and interactions with the Healthcare systems. Also, discuss how States responded to the Pandemic and the economic and social upheaval. Specific examples of Utah's medical and political response will be examined and contrasted with other Regions.

Learning Objectives

- Describe the federal health system infrastructure that impacted Utah's response to COVID-19
- Explain how the pandemic response at the state level impacted the economy of Utah
- Discuss how state policies impacted health system readiness and response to the surges of COVID-19 variants

Faculty Brian E. Shiozawa, MD, FACEP



9:15:00 AM - 10:15:00 AM

404 Injury Rates Before and After the Proposed 2021 Film and Television Crew Strike

In 2021, the International Alliance of Theatrical Stage Employees authorized a strike to protest long hours and working conditions on film, television, and other productions. This session will educate on the most common injuries seen in this population and examine what changed following authorization of this historic strike.

Learning Objectives

- Identify the range of worker types and job duties included under film, stage, and television crews.
- Identify common injury patters pertinent to these workers, based on OSHA and DOL as well as union data.
- Identify how a strike changed injury patterns, and what future of the industry may hold for worker health.

Faculty

Monya De MD MPH



9:15:00 AM - 10:15:00 AM

405 Board Certification in OEM

Members of the American Board of Preventive Medicine (ABPM) will discuss specifics regarding the rules for acceptance as a candidate to sit for the initial certification examination, as well as for the four parts required for recertification under maintenance of certification: 1) professionalism; 2) lifelong learning; 3) cognitive examination; and 4) practice performance. Extensive Q&A with attendees has been a hallmark of this session. Additional information is available on the ABPM web site at www.theabpm.org. This session may be of particular interest to residents and recent graduates.

Learning Objectives

- Describe the requirements for achieving certification by the American Board of Preventive Medicine (ABPM)
- Describe the process for maintaining certification during ABPM's transition to a Continuing Certification Program
- Identify APM resources to assist diplomates in meeting ABPM requirements

Faculty

Eric M. Wood, MD, MPH, FACOEM



9:15:00 AM - 10:15:00 AM

406 Understanding evidence-based social support strategies for protecting psychological health at work: An Occupational Health Psychology perspective

Psychological health is essential to healthcare provision and to optimal functioning of any individual in work settings. In recent years, several evidence-based interventions have been introduced to empower healthcare professionals and workers in other high-demand occupations to proactively address psychological health in their work environments (for themselves and the people they serve). These interventions all highlight how protecting the psychological health of physicians and other healthcare professionals requires social support, voice, and control, three job-related resources that really only function well in the presence of each other. All of these interventions are designed around fundamental and well-supported applications of a new and developing area of applied psychological research and practice known as occupational health psychology (OHP). In this brief session, I will provide an introduction to OHP and a straightforward overview of how and why it is possible for peer-driven psychological health interventions to be impactful, and why such programs are an essential component to healthy and safe organizational cultures.

Learning Objectives

- Explain the focus and importance of the field of research and practice known as occupational health psychology (OHP).
- Define the concept of 'psychological health' and explain how it differs from 'mental health' or other similar concepts.
- Describe how and why social support at work is an essential element to protecting physicians' and workers' psychological health and well-being.

Faculty

Christopher J. Cunningham, PhD



10:30:00 AM - 12:00:00 PM

407 Building to Better Health: How Occupational & Environment Medicine can enhance health and well-being through the built environment

As the boundaries between work, home, and community life become increasingly porous, the built environment represents an even more crucial leverage point for worker and population well-being. Occupational & Environmental Medicine professionals can serve a powerful role by informing policies, plans, and designs for the built environment and other social determinants of health. Tune in to this panel session with experts from the public, private, and academic realms as they discuss topics including micro-pollution, urban canyons, urban microenvironments, environmental justice, equity-centered planning for physical community and workplace spaces, and urban resilience. Realistic hypothetical scenarios will also be posed, where both panelists and audience members will have an opportunity to explore tangible ways occupational and environmental medicine expertise can be used to advocate, inform, and influence decisions that have implications on environmental health

Learning Objectives

- Recognize disparities and challenges in environmental health, and how the built environment can be leveraged to increase health equity
- Collaborate with stakeholders to explore innovative solutions to support communities and workers
- Value the role of Occupational and Environmental Medicine in workplace and community planning and design

Faculty

John Clarke, MD, MBA, MS, FAAFP Rosandra Daywalker, MD, PhD Candidate Karen Li, MD, MPH Staci Lofton, JD, MPH Blythe Mansfield, MD, MPH, FACOEM Warren Silverman, MD, FACOEM



10:30:00 AM - 12:00:00 PM

408 The Global Shortage of Health Workers: The grave peril to our health systems

There is a shortage of health workers in all countries. This inadequate supply of health workforce has reached a crisis level in 57 countries. There are currently 136 million workers in the health and social work sectors - a deficit of 7.2 million health workers worldwide, projected to worsen to a 12.9 million deficit by 2035. The Covid-19 pandemic has greatly stressed our health care facilities and abilities to provide adequate care for our communities and subjected our health workers to increased health and safety risks, leading to additional workforce attrition. The deficit of health workers is likely to be much greater than projected above. This session will discuss the causes leading to the reluctance of new workers to enter the health care field and the attrition of health workers. Panelists will come from various global regions and will discuss the specific problems their communities are facing and the remediations that have been put in place to improve their health care abilities. The session will be a combination of short presentations, panel discussions and an opportunity for attendees to ask questions and/or offer their personal insights into this problem.

Learning Objectives

- Describe the current and projected deficit in the health workforce and our ability to provide adequate health care for our communities and truly appreciate that we are a global community limited health care in one region impacts all other regions.
- Discuss the degree of health and safety inequities between different countries/regions.
- Explain the need for stronger occupational health programs to improve the health and safety of health workers in all countries.

Faculty

Gwen O. Brachman, MD, MS, MPH Naesinee Chaiear, MD, MMedSc, PhD Charles B. Onigbogi, MD, MPH, DipOH, FIOGR Shyam Pingle, MD Julietta Rodriguez-Guzman, MD, MSc



10:30:00 AM - 12:00:00 PM

409 Oral Pathology Made Easy: Focus on the Top 30

The presentation will cover some of the more common oral soft tissue lesions seen in dental offices (and likely medical offices as well). Proper terminology will be reviewed. Differential diagnoses will be discussed. It is intended to be an interactive course involving problem-solving and critical thinking. Participants will be taught how to recognize normal, variations from normal and abnormal soft tissue entities commonly found in the oral and maxillofacial region. We will also discuss different treatments and their outcomes. Some time will also be dedicated to environmental exposures and the effects on the oral cavity.

Learning Objectives

- Learn and review current terminology used in oral pathology.
- Recognize normal, variations from normal and abnormal soft tissue entities commonly found in the oral and maxillofacial region.
- Discuss different treatments and their outcomes.

Faculty Bryan G. Trump, DDS, MS



10:30:00 AM - 12:00:00 PM

410 Occupational Vision Testing: Diligence in Evaluating Visual Fitness for Duty

Eye and vision testing is important in fitness for duty evaluations for many occupational roles-such as commercial drivers, pilots, law enforcement officers and members of the military-where good visual skills are critical. This course reviews the various procedures that are used to determine whether an individual meets vision standards from the perspective of why attention to detail on these assessments is important to the safety of the patient and the public.

Learning Objectives

- Discuss the need for careful critical assessment of visual skills for the worker who must meet vision standards for a job.
- Describe how color conveys information making it an important requirement for certain occupations.
- Explain job-related standards related to common procedures such as visual acuity, color vision, stereopsis and visuals fields.

Faculty Jeffrey L. Weaver, OD, MS



10:30:00 AM - 12:00:00 PM

411 OSHA Session: What Have We Learned in 2021

OSHA Office of Occupational Medicine and Nursing staff will present on 3 issues encountered over the last year.

- 1. OOMN investigated 32 outbreaks of COVID in the workplace, estimating Standardized Incidence Ratios (SIR), or exploring other approaches to characterizing work relatedness where available.
- Oxygen deficient atmospheres occur in a variety of work settings, driven by organic/biological and inorganic/physical or even human-created, processes. Some are associated with elevated CO2 levels; some show dramatic variations in the level of hazard. The presentation will provide a typology of settings, review of criteria, intervention/prevention guidance and areas for further inquiry.
- 3. Over the last 9 years, OOMN has encountered multiple areas of poor medical and nursing practice. These ranged from outright fraud and purposeful deviation from professional standards of practice to administrative violations of professional regulations including documentation, telemedicine, and scope of practice issues. OSHA is working with national professional organizations and state licensing boards to address these challenges.

Learning Objectives

- Recognize and apply criteria to workplace-relatedness of COVID cases, recognizing the utility of epidemiology and both State and county-based COVID rates
- Recognize common and unusual settings in which O2 deficient atmospheres occur, identify criteria by which increased concerns should arise, and know testing strategies for identification
- Characterize deficiencies and identify system solutions

Faculty

Dawn L. Cannon, MD, MS Melanie E. Hayes, DNP, APRN, FNP-C Michael J. Hodgson, MD, MPH Virginia M. Weaver, MD, MPH



10:30:00 AM - 12:00:00 PM

412 The Forensic Consultant in Occupational and Environmental Neurotoxicology:Causation and Considerations

Case presentations will trigger discussion between two experienced ACOEM members; one also board certified in Neurology, the other also board certified in Toxicology and Internal Medicine; and two experienced trial attorneys, one defense; and one plaintiff. Each will present information supporting a consistent approach to provide forensic consulting services.

Learning Objectives

- Describe a consistent approach, scientifically based, for a forensic evaluation.
- Improve their fund of knowledge of the definition of causation in the arena of personal injury.
- Discuss the perspective of a toxicologist, neurologist, neuropsychologist, neuroradiologist and a defense lawyer and a plaintiff lawyer.

Faculty

Thomas H. Case, JD Eustace de Sant Phalle, JD Michael Kosnett, MD, MPH, FACMT Jonathan Rutchik, MD, MPH



10:30:00 AM - 12:00:00 PM

413 Impact of Aging on Workplace Injury and Illness Risk

In its broadest sense, aging merely refers to the changes that occur during an organisms' life-span, though the rate at which these changes take place varies widely. This definition comprises changes that are not necessarily deleterious, such as wrinkles and graying hair in humans, but also includes changes that lead to increased risk of disease, disability and death. Aging workers have a higher risk of a number of musculoskeletal disorders, which can have a significant impact on their workplace safety, productivity, and quality of life. Although numerous factors including current level of health and physical fitness, mental/psychological resilience, past medical and surgical history, education, and job experience all impact the aging workers' work-life expectancy, this presentation will focus on the mechanisms of musculoskeletal aging and their impact on the aging worker.

Learning Objectives

- Discuss the basic theory of molecular and cellular aging.
- Describe how the molecular and cellular mechanisms of aging effect the components of the musculoskeletal system.
- Learn the types of occupational injuries and illness that are at increased risk due to aging.

Faculty

John C. Schumpert, MD, MPH



12:15:00 PM - 1:15:00 PM

414 Cancer Control and Prevention in the Firefighter Workforce: Evidence from the Firefighter Cancer Initiative

Not all firefighters are exposed to carcinogens equally. Epidemiologic studies on cancer incidence and mortality rates in the U.S. firefighter workforce have been largely limited to retrospective analyses of career firefighters, neglecting the critical workflow and unique exposures of other firefighter subgroups. In addition to exploring the occupational hazards associated with firefighter subgroups (i.e., arson investigators, instructors, volunteers, and wildland-urban interface firefighters), this session offers occupational and environmental medicine (OEM) physicians an opportunity to examine exposure assessment methods of carcinogens in the firefighter work environment, epigenetic changes from early carcinogenic exposures and educational curriculum for firefighters on cancer prevention. OEM physicians will learn about the Firefighter Cancer Initiative at the Sylvester Comprehensive Cancer Center, supporting novel translational research, wide-scale education and clinical prevention initiatives for firefighters.

Learning Objectives

- Describe the prevalence of specific elevated cancers in the U.S. firefighter workforce compared to the general population.
- Assess the use of silicone-based wristbands as passive sampling devices for the detection of carcinogenic compounds in the firefighter work and training environment.
- Appraise how early carcinogenic exposures in the firefighter work environment is associated with epigenetic changes (i.e., DNA methylation).

Faculty

Alberto J. Caban-Martinez, DO, PhD, MPH David J. Lee, PhD Natasha Schaefer Solle, RN, PhD



12:15:00 PM - 1:15:00 PM

415 Advancing ACOEM's Clinical Practice Guidelines and Their Mounting Evidence of Efficacy

This session will provide an overview of recent evidence-based changes and additions in ACOEM Clinical Practice Guidelines and methodology. These advances in guideline methodologies directs the creation of the ACOEM Guidelines to ensure that the process is robust, transparent, and reproducible. In addition, the growing evidence of validation of the ACOEM Guidelines demonstrating improved patient outcomes will be presented, including research on low back pain, opioids, and PTSD, along with the striking, continuing lack of compliance being reported.

Learning Objectives

- Summarize the evidence-based guidance changes in the ACOEM Guidelines.
- Identify methodological improvements in the Guidelines methodology.
- Synthesize the evidence of efficacy of the ACOEM Guidelines.

Faculty

Kurt T. Hegmann, MD, MPH, FACOEM Matthew S. Thiese, PhD Kerri Wizner, MPH



12:15:00 PM - 1:15:00 PM

416 Managing Worker Expectations of the Return-to-Work Timeline

According to the Bureau of Labor Statistics, there were 2.8 million non-fatal, recordable, injuries and illnesses in the US in 2019. Work-related injuries result in multiple days of lost productivity, which translates into lost revenue for employers, workers, families, and the larger community. Most injuries, particularly musculoskeletal injuries, have a defined time course for recovery. While many workers return to work within a reasonable time frame, managing workers who do not wish to return to work quickly can be challenging. At the conclusion of this presentation, participants will know how to: identify the recognized time course for most work-related injuries; recognize the barriers to recovery during the occupational medicine clinical encounter; implement communication techniques for sharing the expectations of recovery and the return-to-work timeline with workers.

Learning Objectives

- Identify the recognized time course for most work-related injuries.
- Recognize the barriers to recovery during the occupational medicine clinical encounter.
- Implement communication techniques for sharing the expectations of recovery and the returnto-work timeline with workers.

Faculty Leslie R. Cadet, MD, MPH



12:15:00 PM - 1:15:00 PM

417 Comparing Needlestick Injury and Mucocutaneous Incident Surveillance Among Healthcare Workers Before and During the COVID-19 Pandemic

With ongoing prevalence of needlesticks and mucocutaneous exposures in healthcare, is it important to illustrate how/if that changed before and during the pandemic, so that we know where to focus preventive controls. With lack of available PPE and staffing shortages, keeping a careful eye on preventing occupational injuries and illnesses is critical. This presentation will summarize national Exposure Prevention Information Network (EPINet) surveillance data and provide comparisons in occupational events over time. EPINet has captured epidemiological surveillance data in an aggregate of US healthcare facilities since 1992. This dataset is one of the only that is reported publicly to allow for comparisons. The latest EPINet data in 2020 for needlestick and sharp injuries has nurses accounting for the highest incidence (36.3%). Only 36.9% of employees said they were using a device with a safety design and of those 66.7% said they did not activate the safety feature. For splashes, more than 80% were to the head, while only 31.5% of those exposed were wearing any kind of PPE to protect their eyes, nose, or mouth. This along with other important data will be shared.

Learning Objectives

- Describe how and where sharps injuries, needlesticks, and mucocutaneous incidents are occurring
- Define how future events can be prevented
- Discuss opportunities to improve use of engineering controls and PPE

Faculty

Eric Persaud, DrPH



12:15:00 PM - 1:15:00 PM

418 COVID 19 Pandemic and the Workforce Safety

Occupational medical professionals are facing challenges from COVID-19 Pandemic.

- 1. This session would firstly introduce a simple screening tool for potential COVID-19 cases without PCR or antibody tests. This is particularly useful for screening a large amount of workforce at workplace entrances together with a question survey. Our study would present the sensitivity, specificity and other statistical indicators of the tool.
- 2. Accommodation requests are very common during COVID-19 Pandemic. This session also provided an example on how to standardize approval process for the accommodation requests from health care workers during COVID-19 Pandemic.
- 3. Lastly, this session provided an analytical method on how to estimate the risk of filing a WC claims due to COVID-19 by industries based on WC data without information on underlying workforce population.

Learning Objectives

- Discuss the value of using vinegar and water to identify covid-19 cases during a workplace entrance screening protocol in resource poor areas.
- Describe an example of standardizing the accommodations process for health care workers during covid-19.
- Describe the method of analysis on what industrial categories are workers at excess risk of filing a covid-19 workers' compensation claim? a study conducted in 11 midwestern us states.

Faculty

Edward J. Bernacki, MD, MPH Dan L. Hunt, DO Nimisha Kalia, MD, MPH, MBA Clarence K. Lam, MD, MPH Grant Tao, MD, PhD



12:15:00 PM - 1:15:00 PM

419 Emerging research from the National Safety Council on COVID's impact on substance use and mental health

As the COVID-19 Pandemic engulfed the country, the CDC reported that 40% of US adults in June 2020 reported struggling with mental health or substance use. More than 40 states reported increases in opioid overdoses in conjunction with the pandemic. Increased levels of stress, uncertainty and anxiety contributed to an increase in substance use, misuse, substance use disorders (SUD), or an increased risk for relapse for those in treatment or recovery, leading employers and employees facing what has been called the 'twin pandemic' of COVID and opioid overdoses. To better understand how this might play out among workplaces, the National Safety Council surveyed its members. The goal of this research, funded by the Substance Abuse and Mental Health Services Administration (SAMHSA), was to identify COVID's impact on:

- 1. Workplace changes: physical distancing, mask wearing, working from home, supply chain changes, layoffs, demand, etc.
- 2. Employee substance abuse: EAP usage, substance abuse rates, and substance use changes related to the pandemic
- 3. Employee mental health: EAP usage, mental health and stress related to the pandemic
- 4. Emerging best practices

Learning Objectives

- Describe COVID's impact on organizations
- Identify changes to substance use and mental health brought on by the pandemic
- Identify emerging best practices employers implemented in response to the pandemic

Faculty

Rebecca Martin, MPH



5:00 pm - 9:30 pm Bus Departs: 4:30 pm

Hale Centre Theatre: Tour, Dinner & School of Rock Musical (Separate registration required)

Tickets are \$200 per person

Theaters are workplaces that present unique hazards for performers and supporting crew. During this tour, Hale Centre Theatre's safety expert will show you the best practices of theatrical safety.

It should be noted that Hale Theatre is just not any performing arts building. <u>Structure Magazine calls it</u> <u>"Truly One of a Kind."</u>

Its centrally located round stage features seating radiating concentrically outward, with each row increasing in diameter. The stage also revolves, providing for 20 feet of vertical travel. Radiused suspended seating, perhaps the most distinctive feature of the design, allows for slip stages to retract below the seating on opposing sides. When patrons experience a show at Hale Centre Theatre's center stage, the viewing angle is 360-degrees.

Tour one of the jewels of Salt Lake City, then enjoy dinner and School of Rock, a charming musical about an unemployed rock star posing a teacher who leads a group of fifth graders to the Battle of the Bands.

You will:

- Learn what Hale Theatre does to ensure worker safety
- Hear about the unique design features of the theatre and what it took to construct
- Understand the unique safety features of the theatre