HIGHLIGHTS:
The Physician Burnout Epidemic: A Call to Action for OEM
Healthcare is changing and becoming ever so much complex. Changing reimbursement structures, dealing with cumbersome and difficult to navigate Electronic Medical Records, unending paperwork - all add to the ever increasing burden placed on health care providers. In the midst of all this is the most important person, the patient, who must be provided with quality compassionate care in the most customer friendly way. It is therefore not surprising that physician burnout is on the rise and is soon to reach epidemic proportions. In this article, Susan Upham, MD, MPH, describes physician burnout and outlines strategies that we as OEM practitioners can take to combat and manage this problem.

“You Gotta Be Crazy!” Tales of My Practice in Rural Maine
Dr. Ron Blum, President-Elect, NEOEM, needs no introduction. He has practiced in rural Maine for many years, providing a myriad of services as a family physician to his patients. However, how he "landed" up in Maine and what still keeps him going, is another story! Read on about his impressive career as he reminisces about his life in Maine!

NECOEM’s Quest Laboratory Tour
On a Wednesday evening in October, 2015, NEOEM sponsored a worksite tour and dinner event. A group of 21 physicians, nurse practitioners, and nurses gathered at the Quest Laboratories Northeast Regional facility in Marlborough, MA, for the tour and dinner event. Dr. Dana Sparhawk provides a description of this really wonderful and informative event.

Three in One: Occ Doc, Attorney and ...Sushi Chef!
One of our newest Board members is certainly an interesting personality. Meet Dr. Kenji Saito, MD, JD, occupational medicine physician and currently Medical Director at the Aroostook Medical Center in Northern Maine!

What Is It?
The NEOEM Reporter’s trivia section is back with another puzzle. If you can identify what the photos represent, please e-mail Dr. Abhijay Karandikar. We will print the name of all individuals with correct responses in the next Issue of the Reporter.

Events & Happenings!
The Physician Burnout Epidemic: A Call to Action for OEM
By Susan Upham, MD, MPH, FACOEM

Chronic stress in the practice of medicine, resulting in burnout, is on the rise. It was estimated to affect over 50% of the US physician workforce in 2014. This alarming finding was presented in a recent Mayo Clinic study (Shanafelt TD et al 2015) which showed a 10% increase in prevalence between 2011 and 2014. In an editorial regarding this finding, Ariely D and Lanier W (2015), commented that “the structure we have created for practicing medicine makes taking care of patients more difficult, more stressful and ultimately, counterproductive.” Considering the wide reaching negative impact that burnout has on physicians, as well as their families, patients and employers, the need for action has never been more urgent. There are solutions, but we need to think beyond self-care and more in terms of healthier management of the medical workplace.

Even though the DSM does not recognize this as a diagnosable mental illness, it has been studied and characterized (see table p.2) and is a modern day occupational psychological risk for physicians. OEM physicians who serve health care organizations should consider themselves well poised to get involved and make a difference, influencing their employers to take the necessary steps needed to treat this epidemic. The facts should serve as your call to action.

Burnout Basics
Quint Studer is the CEO and founder of the private health care consulting company, Studer Group. He is an author and lecturer and provides advisory services to various health care organizations. His recently published book, “Healing Physician Burnout” (Fire Starter Publishing, 2015), describes typical indicators of a burned out physician. Early behaviors include “The Three D’s: Disengagement, Disinterest, and Disconnection.” These doctors withdraw from involvement in physician activities such as attending meetings and isolate themselves. They may be visibly fatigued, apathetic, and cynical about their patients or colleagues, irritable, anxious, and dissatisfied. They start to have difficulty concentrating, Their patients may note that they are less compassionate or responsive. Indicators of more advanced burnout include a low sense of personal accomplishment or powerlessness. Their risk of malpractice is increased as they make more medical errors and exhibit poor judgment. Personal relationships are damaged and they may start abusing substances. Without help, this process may end in suicide. Many leave the medical profession, often at the height of their careers and at a loss to the field.

Solutions
There is limited research on therapies for burnout. Cognitive Behavioral Therapy (CBT) is the only approach that has research proven efficacy (Korczak D et al 2012).

Physicians can try to prevent burnout via self care, and there are various recommended approaches. (See Burnout Basics box.) Mindfulness is a commonly referenced stress reduction tool. A brief review of this is offered in the article by J. Dreher, MD (See box p.5.) Examples of other tools include the “AMA STEPS Forward” on line program, which is a series of modules which “help physicians learn their risk factors for burnout and adopt real life strategies to reignite professional fulfillment and resilience.” Some employers provide services that are highly supportive. One example is the “Physician Support Services” program created by Florida Hospital which offers multiple options, including counseling and psychotherapy, on-boarding
interviews, “Finding the Meaning in Medicine” dialogues, events which promote peer interaction, and resiliency training (Paolini HO et al 2013.)

Organizational changes are necessary and can have a positive impact. Quint Studer's book is a valuable resource that provides an in-depth review of effective management approaches. He recommends the following steps:

1. Diagnosis (aka use tools to better understand the problems in the system which contribute to stress)
   Examples: Physician engagement survey, focus groups, management shadowing physicians for a day

2. Measurement (aka use tools to give feedback and monitor progress)
   Examples: Individual physician feedback systems, stoplight reports to communicate progress on issues

3. Treatment (aka use tools to create a positive work environment)
   Examples: Management rounding on physicians, reward and recognition, thank-you notes

4. "Out of the Box" Tactics (aka use unique or alternative ideas to make dramatic changes)
   Examples: On site fitness center with dedicated time for physicians only, support groups, activities to support peer relationships, physician lounges or clubs, mandatory annual wellness examinations.

   Linzer M et al in “10 Bold Steps to Prevent Burnout in General Internal Medicine” (2013) suggest that “the metrics for institutional success include physician satisfaction and wellbeing.” Their recommendations include prioritizing time for reflection, planning and relationship building. Efforts to reduce the stress from the use of the electronic health record are encouraged, such as adding “desktop” time to one’s daily schedule. Primary care clinicians in highly challenging settings should be prioritized in receiving resources, such as supplies, equipment, rooms, and access to specialists.

   A unique suggestion involves planning for and covering “predictable life events” of physicians by using “float pools.” It is estimated that the typical general internal medicine practice has “10% less FTE than anticipated due to predictable life events.” In some cases, this has been seen as high as 20-30%. Float pool coverage “may be cost effective, as coverage raises morale and avoids burnout and turnover.”

   Babbott S et al (2014) studied the effects of electronic medical records and physician stress in primary care and found that increased stress was found as EHR functions increased, with the highest rates found when high EHR demands were combined with time pressure. They concluded that offices should provide longer visits and scheduled catch up time to reduce physician stress.

**Quint Studer Interview**

I recently interviewed Quint Studer and he offered the following additional perspectives on physician burnout.

It is frustrating. “Sometimes in healthcare, until a problem becomes an epidemic, we don’t address it.” Physician burnout is just that type of epidemic. From a national perspective, he
believes that we are just starting to take this problem seriously. He likened this experience to that which occurred in healthcare in the 1990s, when the nation was suffering a nursing shortage and hospitals ended up paying a high price...increased salaries and the high expenses of agency nurses for coverage. In reality, the system was paying a high price for supporting a negative work culture for nurses and poor retention practices. Fast forward 20 years later, and we now have a health care system where the majority of doctors are now employees, and we are seeing this epidemic, with similar root causes – lack of attention to those factors which lead to physician work life satisfaction.

Organizationally, the industry needs to understand the absolute importance of caring for their "elite performers" (i.e. physicians.) He mentions other non-health care organizations, such as the sports industry, where their elite athletes receive various services and feedback to help them achieve their maximal potential. Physicians should be afforded the same attention.

This problem also is partly a reflection of the health care industry's lack of experience managing large numbers of physicians as employees. Fortunately, there are examples of organizations that are succeeding in this matter, such as Advocate Healthcare, The Mayo Clinic, The Cleveland Clinic, The University of Alabama Birmingham and Kaiser Permanente. However, they all share the same feature – long term experience employing physicians. This should offer some hope to others in the industry who are early in this journey.

Mr. Studer’s goal is to reach out to health care leaders and help them understand how to effectively manage and support physicians. It is a complex problem, and as such, there may be resistance to dealing with it. However, he thinks that once the leaders get past the denial, they are good at moving on issues. This is a key part of the solution.

Mr. Studer says you have to “make the complex simple.” It is a two pronged approach: personal and organizational. The first step is for the health care organization to conduct a "Physician Engagement Survey" or in other words, a physician satisfaction survey. His book describes this as “one of the best diagnostic tools for providing insight into issues like quality, efficiency and input.” It obtains data on where there are problems, and the information gained can be used by management to prioritize which actions to take first.

We talked about financial barriers as being a possible limiting factor to this work. It takes little persuasion to prove that this should not be so. He says that the return on investment for initiatives to help doctors be happy is huge. Happy doctors are more productive, have better clinical outcomes, and recruit other happy doctors. This is a major win for everybody.

He sees that collegiality and relationships between the physicians has diminished over time and likely is another factor that needs to be improved. Supporting activities that bring physicians together will help to reduce burnout.

**An Institution Responds to Burnout in their Physician Staff:**  **MMC (Portland, ME)**

Located in Maine’s largest city, Maine Medical Center (MMC) employs approximately 1500 clinicians (physicians and mid-level practitioners), and is an example of a health care system taking steps to address this problem. I recently interviewed Joe Dreher, MD and Peter Bates, MD who are the leaders of MMC’s “Prevention and Mitigation of Burnout” work group. To set the stage, Dr. Bates indicates that they are “at the beginning of a long journey.”

Dr. Dreher has worked with the Maine Board of Licensure of Medicine and in other capacities dealing with the mental health of physicians, and is very familiar with the stress that they experience. He has become an institutional leader on this issue. After learning more about
physician burnout at an International Conference on Physician Health several years ago, he presented these concerns to their Medical Executive Committee, in hopes of initiating a response to this problem in their system.

Upon reflection, he worries about the high complexity of the problem. He mentions several common contributing factors: time starvation, productivity demands and the general "frenetic pace" of the work that erode the physician patient relationship, a system with its internal tensions that cause clinicians “moral distress,” the unreasonable number of matrices requiring attention, and EHR demands. The challenge is further accentuated by the fact that there seems to be little research on what organizational interventions are effective. Financial constraints are constantly in the background, and limit what interventions can be enacted. Per Dr. Dreher, there seems to be an emerging concept of burnout as a dilemma requiring a long term menu approach rather than as a singular problem to be fixed.

In 2013, MMC conducted a Provider Engagement Survey from which they estimated that about 35% of their clinicians were suffering from burnout symptoms. This was followed by clinic visits and direct interviews with the providers. Dr. Bates says that this was when they first realized the full extent of the angst and concern of their clinicians. The next step was to develop a Provider Engagement Committee which determined six key themes around which to focus their efforts. Work groups were created for each theme, such as “Prevention and Mitigation of Burnout, Improving Organizational Structure/Decision Making Authority/Clarity, and Enhancing Medical Staff Participation in Planning Activities.” Additionally, monthly clinic meetings to focus on improving problem solving and communication were scheduled.

Dreher's and Bate's committee is supporting numerous efforts to educate, empower, and encourage collaboration of their physicians as it relates to burnout recognition and prevention. As an example of this, Dr. Dreher encourages mindfulness, which is described in the October 15, 2015 MMC physician newsletter, The Scope, and is reprinted here with permission. (See box.)

Supporting clinicians who seek help for stress is another important initiative. Dr. Bates recognizes that physicians are often the worst patients, and the unspoken rule among clinicians that they are expected to “pull their weight,” may make it difficult for them to ask for help or to cut back. To counter this, MMC has developed the MMC Peer Support Program, which is a confidential resource for all clinicians needing support during times of severe stress. This program is “beginning to take hold” as they see more physicians directly asking for help and a shift in attitudes, where their doctors are increasingly recognizing that getting help is a good thing. Because little research has been performed on these types of programs, they are now conducting a study to examine the relationship between “beliefs and attitudes about peer support and professional burnout, empathy, tolerance for ambiguity and epistemic uncertainty beliefs.” To this end, clinicians are encouraged to complete an anonymous survey.

The MMC clinical staff has experienced its share of strain due to technology. Dr. Bates, considering their EHR conversion several years ago, thinks that the EHR system has generally added to the burden of physicians but he sees this as a national problem as well. MMC provided additional support during their conversion, including training and utilizing “Super Users” who acted as resources for clinicians. Yet, he admits that even those efforts were “probably not enough.”

Dr. Bates also recognizes that the healthcare culture of “being sharp/tough on each other,” can have its downside from a stress standpoint. To counter this, MMC has instituted professional behavior policies for clinicians and provides training and coaching when needed. It may be
that one of the first steps to healing this harsh system is for doctors to learn to be cordial in their words and deeds to each other.

In spite of the above efforts, they regard themselves as being at the early stages of this process, as they are still trying to prioritize and make decisions over what works best for their system. Dr. Bates indicates that the next steps will include direct involvement of physicians, so they can tailor a plan that best suits their unique needs. It seems that this is a step in the right direction, allowing the physicians to have some increased control over the functions of their workplace, a factor that will help to reduce some of the stress of working in this complicated system.

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*Shanafelt T et al, 2012; Spickard A et al, 2002; Babbott S et al, 2014; Keeton K et al, 2007; AAFP
Mindful Moment: RAIN(E) your way to more skillful responses

By Joe Dreher, MD, MMC Medical Staff Provider Health and Resilience Committee. Printed with permission.

One of the benefits of mindfulness is observing how our mind works and gradually moving from life on autopilot to more conscious decision-making on how we respond in stressful moments. This does not mean always pausing before every action or choice; rather leaning toward promoting more skillful actions and choices over time such that they become the norm.

One training approach is to become more internally aware of our reactions in a less-judgmental way thereby allowing a more constructive stance to develop within ourselves. Notice this is not a process of shoulds, but rather a gentle realigning of how one perceives and lives with internal or external conflicts.

When you are having a destabilizing feeling or thought, begin by taking a few slow deep breaths to bring yourself into the moment, then work on bringing the refreshment of RAIN(E) to bear on the experience:

R = Recognize and label what thoughts and emotions are arising within you.
A = Accept these internal experiences without judging yourself for their existence.
I = Investigate with curiosity, openness and your senses, the emotions, thoughts and sensations arising within you and how they may color your perceptions and beliefs regarding the event.
N = Non-identify with these thoughts, feelings and emotions perhaps by viewing them as events occurring within you yet not exclusively defining who you are.
E = Excellence – approach your responses by seeking excellence rather than expecting perfection in yourself.

The entire process is like conducting an orchestra with all your parts working together some times – less so other times, yet seeking a desired life harmony and melody. Practice as you can. You will slowly make this process easier to call on when you sense an emerging unskillful reaction and wish to move in a more desirable direction. Remember, being a more skillful human requires time and self-compassion.

Be well.

References for Review

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“You Gotta Be Crazy!” Tales of My Practice in Rural Maine
By Ron Blum, MD, FACOEM, FAAFP

I was raised in an eastern Pennsylvania city of 100,000, in a nuclear family, my parents honoring their marriage vows ‘till death did them part. I had a typical conventional education—public school, liberal arts college, then medical school in “the big city”—Philadelphia. In the days before family medicine had declared itself a specialty, I emulated my family doctor—who also graduated from my alma mater, Jefferson Medical College—and strove to prepare myself for general practice and community service. I chose pediatrics for my internship, with plans for a year of internal medicine and perhaps surgery, as well. I soon learned that kids weren’t just little adults, but adults were really just big kids, at least for the most part, and stayed in pediatrics for the full three years. My residency in the Bronx (an even bigger city) enabled me to take two months of electives each year in adult medicine disciplines, so I felt reasonably prepared for independent primary care practice when the time came. But I couldn’t have predicted the location.

Northern Maine

“What do you mean you want to practice in northern Maine?” was my father’s reaction to the plan. “You gotta be crazy!”—he had hoped I would open an office in our Pennsylvania city. But I was disgusted with the polluted air, high crime rates, and disconnect from nature that city life represented, and sought the freedom of country living. Besides, there was a real need for modern, quality medical care (I flatly told myself, but I felt well trained) in rural towns where the cost of living was reasonable, people were honest and sincere, land was cheap, and outdoor recreation was literally at your doorstep. So I agreed to become the first and only physician at a newly established Rural Health Center in a town of 1200 in the foothills of Mount Katahdin, Maine’s highest peak and the northern terminus of the Appalachian Trail. Was I naive?—sure, aren’t we all at this stage?—but more so politically than medically.

A Chainsaw Challenge
What I lacked in confidence I soon gained in experience. One of my first challenges was provided by the manager of the local auto parts store, around the corner from my office. While cutting his firewood, a universal chore in these parts, he managed to bounce the moving chainsaw blade across the back of his left hand. When he came running into our one-exam-room office with his hand wrapped in a bloody rag, I had barely learned how to
recognize a chain saw, let alone attend the dirty, ragged result of serial steel teeth dragged across soft flesh. I was confident in my ability to assess the wound, so I dutifully unwrapped his makeshift bandage to expose what looked like hamburger on the back of his hand. At least wounds in the Bronx were from smooth knife blades! Most of the epidermis was torn away from about one-third of his hand with stellate irregular lacerations at the edges and a few islands of intact flesh. I did a superficial rinse of the wound with saline and Betadine and applied a sterile dressing to hold him until he could get to a real surgeon. Thus began my first “woods lesson.” There was no way he was about to drive the 35 miles to the nearest hospital for surgical treatment. “You can treat it best you can doc, or I’ll get by on my own.” And he clearly meant it. Well, medicine had not yet become so liability conscious, and I was, after all, in a small village in northern Maine, where legal consequences were a distant concern. With renewed determination, I re-examined the wound. Tendons, though exposed, were intact. No significant injury to vessels or nerves was apparent, and all finger functions were preserved. So after generous local infiltration anesthesia, I carefully debrided devitalized tissue and wood chips, and scrubbed out soil and oil, and flushed, and flushed again. I then carefully sutured what viable fragments of epidermis I could capture, generously covered the wound with nonadherent dressing and hoped for the best. Needless to say, none of my New York City experience had specifically trained me for this. When he was too busy in his store to come in for my required daily wound checks and dressing changes, I called on him. The wound healed. It never got infected. He had full motion and use of all digits and wrist. And his comment to me on the day of discharge, “I knew you could do it, doc.” Well, now I knew I could do it. And that’s how I gained confidence, patient by patient.

I was less prepared for dealing with local village politics. There were a variety of needs and expectations among the clinic’s community Board members and clientele, and I was neither aware of nor capable of meeting them all. Although my practice grew successfully that first year, advisers to the Rural Health Center opted for applying for a National Health Service Corp doctor (at no cost), and chose not to renew my (private pay) contract. But I had come to really appreciate the community and the rural lifestyle—the nearest traffic light and McDonalds were 35 miles away. And besides, I had no particular place to go. So, much to the surprise of many local residents, and to the delight of my patients, after a brief stint in the hospital Emergency Room, where, by the way, all medical staff of any specialty still took a turn staffing, I went into private practice. At first, with a local general practitioner from a town ten miles south, who shared his wealth of experience, and then after his retirement two years later, on my own. Over the ensuing 28 years I have had a variety of associates from time to time—doctors, physician assistants, nurse practitioners—and a variety of students of similar ilk.

My Own Private Practice
My practice has been busy, stimulating, and gratifying. For most of my years here the only other providers serving the area’s 5000-6000 residents were staff at the still-operating Rural Health Center, which sits on the opposite corner of the block from my office. Although they get cost-based reimbursement from Medicare—currently about $108 per visit—I get less than $30 for the same code. Being a rural provider has allowed me to practice an incredible breadth of medicine, an experience not even approached in an urban practice. The absence of nearby specialists (the nearest tertiary care hospital is 100 miles away) has allowed me to be involved in all aspects of my patient’s care. This location has afforded me the opportunity to forge close relationships with the other physicians and provided unending learning opportunities. I have
administered IV chemotherapy protocols weekly, every two weeks, or as needed, in my office, to patients who visited the oncologist only quarterly. I have performed a wide range of outpatient surgeries in my office, including trauma repairs, biopsies, vasectomies, and even an inguinal herniorrhaphy under local anesthesia. I’ve ridden ambulances, resuscitated newborns, attended the local Amish community at their farms, set fractures, and grieved with family members when resuscitation failed. I’ve completed surgery by flashlight when we lost electric power (a more frequent occurrence earlier in my career); I’ve fabricated custom splints so farmers can continue their harvest in spite of an injury. I attended patients in the local nursing home and mentally and physically handicapped adults in the group home. I serve as a Medical Examiner (coroner) for the area, school doctor, and as a public health officer. In all these roles, I never have hesitated to seek advice from colleagues, and only rarely have been refused assistance.

Professional and Family
My opportunity for professional advancement has not been limited. I’ve served as preceptor at the Family Medicine Residency Program, as well as to students in my office. I’ve been involved with a variety of specialty organizations, serving in local, state and national positions. I became a Fellow in the American Academy of Family Physicians (AAFP). I have had opportunities to teach in those venues and interact with some of our nation’s leading physicians. I served as president of our hospital medical staff and of the Maine Academy of Family Physicians, as advisor to the American Hospital Association, and on the Board of the New England College of Occupational and Environmental Medicine. I am one of Maine’s two delegates to the AAFP and Vice-Chair of the Work Fitness and Disability Section of the American College of Occupational and Environmental Medicine (ACOEM).

Meanwhile, back at the homestead, my wife and I raised four great kids—children, that is—along with some kids, chickens, turkeys, rabbits, and an occasional sheep. Although it was a concern at first, I can say assuredly their education did not suffer for being raised in the country and attending a small school. If anything the advantages outweighed the compromises. The eldest have attended prestigious colleges and university and are well set to succeed in life. Our youngest are still at home, so we continue to watch soccer and basketball games and help prepare for proms and parties. I’ve pursued my interests in gardening, camping, fishing, canoeing, sailing, and photography, served as a scoutmaster, and been active in our congregation’s religious life.

The Business Side
No, I don’t think I was crazy for settling here, although separation from our families in Pennsylvania over the years has presented some hardship. If there is a negative, I’ve alluded to it above—the business side. When I went into practice with “Ol’ Doc Daniels” in 1978, we decided to raise his standard office call fee (we now call it a 99213) to $7, more than double what he charged when he started practice. Office care was busy, and we supplemented that income with service at the hospital, nursing home, school, and local industry.

Over the years rates (and expenses) have increased exponentially, but the payer shift and practice climate has changed dramatically. As economic changes have brought closures in area farms and pulp, paper, and lumber mills (our major local industries), there are fewer working age families with indemnity insurance or Worker’s Compensation coverage. Many of my current population of patients are enrolled in Medicare and Medicaid, which in the current
political structure are no longer profitable, usually representing a financial loss. Another shift in care delivery is the employment by the hospital of almost all the nearby physicians. Their hours and responsibilities no longer dictated by practice demands, they are not particularly interested in sharing patient care or covering my patients in my absence. However, those practicing hospitalist care are perfectly willing to accept my patients for admission. Thus I reluctantly relinquished inpatient care, sacrificing the patient’s continuity of care and satisfaction for the political reality of modern medicine, and sacrificing an income source, as well.

My financial stability has been the result of alternative practice pursuits. While others of my colleagues (no, I am not alone in this lifestyle choice) have supplemented their practices working in the Emergency Room or teaching, my niche has been Occupational Medicine. Working part-time over the years with several local employers, in some cases on site, I have developed expertise and a reputation in this relatively unpopulated specialty, providing an unusual service for a rural area. Income is not filtered through third parties, and as an independent contractor I can maintain professional and ethical independence. Supplemental education has allowed me to become a Fellow in ACOEM, an independent examiner for insurers and lawyers seeking objective assessments, and part-time Medical Director for a large area employer with multiple plant sites.

Sincere Service
My varied interests and flexibility have served me well in this unique and welcoming setting. I get a lot of satisfaction (and occasional garden products or moose meat) from my patients, some of whom I’ve cared for their entire lives and are now returning with their new families. Most local folks carry on multiple tasks to survive—one or two jobs, cut firewood, garden and hunt to supplement the larder, yard sale, perhaps sell some arts or crafts, all in order to continue this clean lifestyle in a beautiful environment. Well, my practice is not much different. My life is full, my service sincere, my main regret is that the government rural health programs should be complementary and cooperative, rather than competitive and adversarial. But I have maintained a medical practice with honesty and integrity, without depending disproportionately on taxpayers, and demonstrate by example the plausibility of rural private. Nah, I’m not crazy.


NECOEM’s Quest Laboratories Tour
By Dana Sparhawk, MD

At 4:30 on a Wednesday evening in October, 2015, a group of 21 physicians, nurse practitioners, and nurses gathered at the Quest Laboratories Northeast Regional facility in Marlborough, MA, for a tour and dinner event sponsored by NECOEM. The title of the meeting was "Protecting Your Laboratory Workers - Injury and Exposure Trends, Surveillance Recommendations and Treatment Pearls”. The Quest Laboratories facility in Marlborough, a
bright, clean, modern, eco-friendly facility that was impressive to all from the moment we stepped inside and viewed the large open-in areas. We entered the conference room to be greeted with delicious Quest chocolate bars and appetizers; we were all given brochures entitled "The Lab of the Future: A New Model of Diagnostic Excellence". Quest is very proud of this facility, and it is clearly a far cry from the local hospital, industrial, or college labs where we haveworked in our careers or back when we were students.

Dr. Salim Kabawat, Regional Medical Director, Michael Hellyar, Director of Operations, and Marguerite Walkowski, Core Lab Operations Director were our hosts for the evening, and offered an overview of the testing performed at the lab, and the history of how this particular facility had been designed. This facility can handle an impressive 50,000 "patients" (samples) per day, which includes up to 100,000 individual tests. Most of the samples arrive late afternoon or evening from collection sites around New England, so at the time of this tour, they were just entering full production mode for the evening. We left the conference room, donned white lab coats, and started our tours in an observation area overlooking the largest part of the lab. Samples were removed from collection bags from local labs and placed on conveyors. There they were bar coded and whisked down various conveyor belts where robots snatched up the samples to suck up an aliquot to test or re-route to a different belt. When the tests were finished, the samples were loaded by robot into a large room where they store up to 200,000 samples for one week. All of these functions were machine operated. The lab workers function mostly as mechanics and machine operators, making sure no jams occur and scanning for alarm lights on the lines and control panels that were present around the facility. After watching from a distance at the observation window, we then were escorted to the floor for an up close look at the processes. We also viewed other areas including pathology and microbiology. Some of this work is still performed manually, but a lot of it is performed by machines, including spreading of petri dishes, identifying growth on the micro plates, and testing of sensitivities of the cultures. This has become so high tech that microbiological identification is much more specific than most practicing physicians want. As such, they have had to modify the lab reports towards simpler identification, excluding the reporting of certain sub-species.

After our tour, we doffed our lab coats and returned for a wonderful buffet dinner while our hosts fielded questions from our group. Although one would initially think that the major concerns at a lab have to do with chemical and infectious agent exposures, these are extremely
rare at this Quest lab. They believe this is because of the high tech processes and the culture of safety at Quest. of their injuries are similar to other workers in industrial environments—musculoskeletal in nature. They have tried to address this with a focus on preventive ergonomics.

NECOEM’s President Philip Parks, MD, MPH, Senior Physician at Procter and Gamble, and Program Manager, Biomedical Solutions at Draper Labs, then presented a lecture titled "Protecting Laboratory Workers". He reviewed the scope of laboratory environments, applicable regulatory oversight, and defined the typical risks and hazards. He then discussed specific exposure and injury trends with lab workers as well as surveillance, machine/human interface, and ergonomics. Dr. Parks reiterated what the Quest personnel presented, that injuries in lab workers are musculoskeletal. He further reviewed emerging infectious diseases, new product development, nanoparticles, and animal research. Although known exposures are rare in laboratories, there is always concern about the potential exposure of lab workers to highly toxic chemical agents or potentially infectious blood and bodily fluids. Regarding lab workers, risk of cancer cannot be made as it depends on what type of lab and what types of exposures could occur. Epidemiologic studies have shown lower levels (compared to age-matched controls) of mortality in lab workers, perhaps as a result of the "healthy worker effect" which can hide certain associations. Another factor that complicates studies in laboratory workers is that longitudinal follow-up periods are short given the long lag times for some cancers (e.g., lung cancer). Dr. Parks cited one cohort study of chemical lab workers that found that even though there was no increased risk of mortality for any cancer or non-cancer specific outcome, there were statistically significant elevations in the risk of leukemia in chemical lab workers employed for greater than 20 years. He finished his lecture with some provocative questions for the group and encouraged those who are concerned in their institutions to become involved with their biosafety committees.

We left around 7:30 PM after an evening in which we toured a facility is far removed from what most of us do for work in our daily lives, learned more about the lab industry, and a chance to interact professionally and socially with our colleagues.

**Dr Park’s PowerPoint slides for this session is available on the NECOEM website.**
Meet Our New BoD Member: Dr Kenji Saito

Three in One: Occ Doc, Attorney and ...Sushi Chef!

One of the newest members of the NEOCEM Board of Directors is Kenji Saito, MD, JD. Dr Saito represents northern Maine and brings an especially rich mix of expertise to our board.

In his mother's restaurant in Philadelphia, Dr Saito grew up and worked many roles. As a female sushi chef in Japan in the 1970's, his mom was prohibited from opening her own restaurant so she moved to Philadelphia and opened the first Japanese restaurant in town. It quickly became one of the top in the city where she was deemed Philadelphia’s “Queen of Sushi” and was credited as the creator of the “Philadelphia Roll.” At the recommendation of the French chef in the restaurant next door, his mother traveled to France to study French cuisine, thus Dr Saito spent his middle school summers in France. Upon return to Philadelphia, the cuisine in her restaurant, now Le Champignon de Tokio, changed to authentic French and Japanese. The young Dr Saito learned much about small business and occupational health issues as he worked there as bus boy, waiter, cook, sushi chef and manager. His interest in the culinary arts led him to pursue research in smell and taste which he later published in the textbook On The Senses: A Comprehensive Reference.

A love of science, health, the law, and world cultures led Dr Saito to focus on bioethics and cross cultural issues while an undergraduate at the University of Pennsylvania. During this time he spent a semester at the Stanford Kyoto Center for Japanese Studies in Kyoto, Japan, where he completed a cross-cultural project paper which was published by the Harvard Journal on Medical Ethics. He founded the Penn Bioethics Society and received the Presidential Student Service Award for leadership and scholarship. Following graduation, Dr Saito worked for
Dr Saito into the Drexel University ophthalmology residency following graduation from his dual degree program. Although enjoying his surgical training immensely, after two years in his ophthalmology residency he realized that he really wasn't pursuing a field that made productive use of his law degree. He remembered back to a period while working on global training programs for GlaxoSmithKline when he spent time working in their human resources section, often interacting with their preventive and occupational medicine specialists. In the context of his extensive experience working in his family's small business and dealing with occupational and public health from that perspective, he found occupational medicine to be intriguing – and he recognized that this was a specialty with much greater potential to tap his law degree. Soon, Dr Saito was in the University of Pennsylvania occupational medicine residency where he was able to explore environmental law with time spent at the EPA and employment and labor law while at OSHA and NIOSH. Ultimately, he carried on at the program as its Chief Resident.

Dr Saito currently serves as the Medical Director of Occupational Health and Wellness at The Aroostook Medical Center in northern Maine (Presque Isle). He enjoys practicing clinical occupational medicine, engaging with population health, and advising the hospital's safety, claims review, medical staff executive and ethics committees. Dr Saito remains actively
involved in bioethics research and instruction as well as employment and environmental law. He serves in the ACOEM House of Delegates, as well as Secretary and Treasurer representing residents and recent graduates, and serves as visiting faculty for the University of Pennsylvania School of Medicine in occupational and environmental medicine.

WHAT IS IT?

The images above are associated with a significant well-known environmental disaster, associated with a toxic chemical. What Is It?

Please send responses to Abhijay Karandikar, MD, at dr_abhik@yahoo.com Readers who send in correct responses will be identified in the next issue. The correct answer will be published in the next issue of the NECOEM Reporter.

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

Moore Medical is a Corporate sponsor of NECOEM. Visit www.necoem.org for more information and discounted services.
On February 18th, 11 OEM physicians met up for an informal dinner at Legal Seafood in Kendall Square, Cambridge. The “Meet Up” dinner was a pilot program to see if NECOEM could facilitate inter-professional networking and learning with the simple model of just announcing a place and time for dinner. We would like to report that this meeting was a success! A tentative date of May 5th same place and time, has been set or a next Meet Up Dinner. Our Executive Committee invites other NECOEM members to propose their own dates and places convenient for them to host similar events. If 10-15 NECOM members or prospective members can be gathered at sites outside of Greater Boston, NECOEM will support these happenings with a modest contribution that should cover tips and drinks. Please send your proposed places and dates to David Diamond, NECOEM@comcast.net.

**NECOEM INTRODUCES MEET UPS**

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The 2015 Annual Conference Presentations are now available to all in the Resource Library.

NEOEM Executive Director: Dianne Plantamura, MSW, CSS