Barriers to the use of Workers’ Compensation: Experience in Community Health Centers

Robert Naparstek, MD, FACOEM

In April of this year the Massachusetts Occupational Health Surveillance Program (OHSP) of the Department of Public Health issued a report detailing the extent of a problem that hides within plain sight throughout our health system. That is, many work injured patients cannot access their employers’ workers’ compensation coverage to assure timely and appropriate care, wage replacement and other well known entitlements of the system.

The report cited data from a 2007 survey of more than four thousand adults. It found that 4.2 percent of those surveyed reported being seriously injured on the job during the previous twelve months and required medical attention. Of these fewer than sixty per cent reported that they were covered by the employers’ workers’ compensation insurance. In a concurrent survey of 1,428 patients at five Community Health Centers (CHC) asking about their occupational health experience 63% of all patients had never heard of OSHA. This included

ISOCYANATES: ARE YOU MISSING THE PROBLEM?

Carrie A. Redlich, MD, MPH

Isocyanate: Exposures / Work settings

Isocyanates, the essential cross-linking chemical for producing polyurethane, are well-known sensitizers and remain a leading cause of occupational asthma, despite attempts to reduce exposures. The major commercial isocyanates, methylene diphenyl diisocyanate (MDI), toluene diisocyanate (TDI), hexamethylene diisocyanate (HDI), and various polymeric formulations (polymers / prepolymers), all contain the isocyanate (NCO) reactive group, and can cause asthma. Isocyanates also can cause rhinitis, and less commonly hypersensitivity pneumonitis and dermatitis. Isocyanates are used to produce an expanding number of polyurethane foams, coatings, paints, fabrics, and adhesives. In the Northeast, exposures are most likely in end-user settings, such as auto body shops, and increasingly in the construction industry, where polyurethane spray foam insulation and other isocyanate-containing coatings, sealants and adhesives are applied during new construction and renovation work, with risk to both workers using the products and bystanders. The general public can also be exposed to isocyanates, due to the expanding number
41% of U.S. origin workers and increased by immigration status. Similarly, 39% had never heard of workers’ compensation. This awareness also varied by occupation. For example, 73% of service workers had never heard of OSHA; 50% had never heard of workers’ compensation. 67% of operators, fabricators and laborers had never heard of OSHA; 47% had never heard of workers’ Compensation. This is significant and consistently shows that those who tend to do the most dangerous jobs are least likely to be aware of these important entities.

When work injured patients are not covered under a proper workers’ compensation claim they are not likely to get the care they need. When care is provided at the CHC it causes cost shifting from the private insurer to the state and federal governments under Medicaid and Medicare. Additionally, prohibitive co-pays effectively impede care, the patient does not receive wage replacement, employers are not incented to maintain temporary light duty and occupational health surveillance is diminished. Financially, the CHC does not bill appropriately and loses the revenue it should receive from the employers’ insurance carrier. This artificially keeps dangerous employers’ insurance “mod rates” lower than they should be and allows private insurers to avoid paying out on bona fide claims.

This is a national problem! The CDC undertook a landmark study, which it published in Morbidity and Mortality Weekly Report (vol.59/no.29 July 30, 2007). It included the Massachusetts data of 2007 as well as data from 9 other states (Connecticut was the only other New England state), surveying injured workers who were hurt at work over the previous twelve months and asking if workers’ compensation paid for their care. The “Behavioral Risk Factor Surveillance System” (BRFSS) was used. This is a state based, random telephone survey of U.S. civilians over 18 years of age.

The advantage of using this survey instrument is that injuries captured by this are broader than those of the BLS Survey of Occupational Injury and Illness which relies on employer based case reporting. Response rates ranged from 26.9% for New Jersey to 60.1% for Kentucky with a median of 39.0%. The proportion of workers who were injured at work during the preceding twelve months ranged from 4.0% in Kentucky to 6.9% in New York (median-5.9%). However, the proportion for whom medical treatment was paid by Workers’ Compensation insurance was only 47% in Texas to 77% in Kentucky (median-61%). The CDC, in an editorial note stated, “...an injured worker with workers’ compensation coverage and an eligible injury might not report an injury or seek compensation...reasons include, among others, access to alternative insurance, less severe injuries, longer employment duration, low wages, poor job security, immigrant status and concerns over employer or co-worker retribution for injury reporting.”

Finally, in 2008-2009 the OHSP surveyed administrators and medical directors at 76 CHCs across Massachusetts. It is widely recognized that low income workers and especially immigrants and minority workers, the populations most served in CHCs are disproportionately employed in dangerous jobs (Murray LR; Am J Pub Health 2003;93:221-226). The CHCs have reported on the barriers they face in using Workers’ Compensation. The factors most cited by the CHC medical director respondents were; excessive paperwork; lack of familiarity with the system; and uncertainty about work-relatedness. CHC administrators identified reimbursement issues as major obstacles. Delays in reimbursement were identified by 53% of CHC administrators as “very much or somewhat” discouraging the center’s use of workers’ compensation. Additionally, arbitrary insurance denials and low reimbursement rates were also identified as impediments.

This reporter and member of NE-COEM has recently moved to the glorious “Ocean State” of Rhode Island. A project is underway here to
On Saturday September 24, 2011, 28 physicians, physician assistants, nurses, and organic chemists gathered at Millstone Power Station in Waterford, CT for a radiation medicine and safety conference. The event was moderated by Millstone’s Medical Director, Dr. Thomas Danyliw, who also serves as Medical Director for Middlesex Hospital’s Occupational & Environmental Medicine Clinic.

Millstone generates 2,097 megawatts from its two operational units, enough electricity to power 500,000 homes. Millstone generates approximately 40% of Connecticut’s total electricity needs. Unit 1 began commercial operation in December 1970, and ceased operating in July 1998. It is being decommissioned. Unit 2 began commercial operation in December 1975, and Unit 3 began operating in April 1986. Dominion acquired the station in March 2001. The station was named after the site’s historic granite quarry that produced high-quality millstones and structural building granite.

The first speaker was Joseph Albanese, PhD, a radiation biodosimetrist. Dr. Albanese is an Assistant Clinical Professor of Therapeutic Radiology and Pharmacology, Yale New Haven Health and works for the Center for Emergency Preparedness and Disaster Response at Yale University School of Medicine. He discussed how in Connecticut, Hartford Hospital and Yale-New Haven Hospital are designated centers for radiation exposures and emergencies. Conference attendees learned about the definition of radiation, exposure versus contamination, measurement of radiation, and how inhalation, ingestion, and absorption of radiation occurs in humans. He discussed environmental or background radiation and presented the following slide:

Historically, watchmakers were noted to have high rates of osteosarcoma; it was later discovered that during the assembly of watch dials, workers would lick the tips of their brushes which were contaminated with radium. Dr. Albanese also discussed radiation exposure from the atomic bombs used in World War II and nuclear power plant accidents.

Dr. Albanese touched upon fears of the “worried well” and sensationalism of the press in coverage of nuclear disasters. He discussed radiological emergency guidelines and has established and currently supervises the State of Connecticut Biodosimetry Laboratory, which provides radiation dose estimates for medical triage and diagnosis in the event of a large-scale radiological casualty incident. The laboratory is one of only several such facilities across the nation. Dr. Albanese also highlighted the Connecticut Hospital Emergency Management Plan for Radiation Emergencies, a hospital emergency management document that he co-authored which serves as a resource for Connecticut hospitals in planning and responding to radiological and nuclear emergencies.

Overall, Dr. Albanese emphasized how during an emergency, the most important step is removing the clothes of affected individual which can remove up to 80-90% of contaminants. He also shared pictures of mass decontamination unit which are portable trailers that can be brought to accident sites.

Triaging of affected individuals is dependent upon timing and dosing with worsened prognosis correlating to increased dose and greater than 4.5 Grays of exposure being nearly uniformly fatal. He emphasized how in all past accidents, no healthcare worker has suffered adverse effects from treating contaminated patients.

(Continued on page 5)
of readily available consumer products, such as do-it-yourself spray foam and coatings that contain isocyanates, such as “Great Stuff Foam Insulation” and “Gorilla Glue”.

End-user products that contain isocyanates typically are 2-part systems that have an “A” part that contains the isocyanate and a “B” part that can contain polyols, solvents, blowing agents, amine catalysts, flame retardants, and other substances, depending on the product. The two parts are mixed, applied (as a spray, coating, or foaming operation), and cured, which is an exothermic cross-linking chemical reaction. Isocyanates can also occur as a 1-part system, using water to cross-link, or where the 2-part system is not visible to the end-user. Once fully cured, free isocyanates are no longer present and there is no risk of exposure. However, curing times are variable, lasting anywhere from seconds to weeks or longer, even for the same product. Curing rates are dependent on factors such as temperature, humidity, mixing ratio and application method. Furthermore, heating, cutting or sanding cured products can also generate free isocyanates.

Usage of isocyanate-containing products in end-user settings such as the construction industry is frequently intermittent and variable, and exposure can easily be missed with routine air sampling, especially with the most commonly used isocyanate, MDI, which is less volatile. Importantly, skin exposure, which is common but difficult to measure, likely contributes to sensitization and the development of asthma. Thus isocyanate asthma occurs in exposure settings where measured airborne levels are very low, often below detectable and regulatory levels. OSHA regulates only TDI and MDI monomers with a PEL of 20 parts per billion, which many experts consider inadequate. Canada and most European countries have more extensive regulations with lower occupational exposure limits.

Isocyanate Asthma: Diagnosis and Management

Clinically, isocyanate asthma can be difficult to distinguish from “ordinary” adult asthma, especially as it becomes more chronic. The diagnosis is easy to miss, even by experienced clinicians. Typically, exposed workers become sensitized and develop asthmatic symptoms after several months to a few years of exposure, with skin exposure, in addition to inhalational exposure, likely increasing risk. Importantly, once an individual is sensitized to isocyanates, exposures to very low airborne levels can trigger exacerbations of asthma. Rhinitis-type symptoms can precede asthma, and cough, a common and non-specific complaint, may be the dominant symptom. Importantly, symptoms can be time-delayed, occurring 6 or more hours after exposure, long after the worker has left the work environment, further confusing the diagnosis. As with most asthmatics, symptoms typically become more diffuse (i.e., occurring in response to more triggers over time), further confusing recognition and diagnosis. Isocyanate asthma commonly persists even when away from the exposure, with particularly adverse socioeconomic consequences.

The diagnosis of isocyanate asthma depends on a high level of suspicion and a careful medical and occupational history. It is important to document the diagnosis of asthma and work-relatedness to the extent possible, before removing a worker from the workplace in question. Asthma ideally is “confirmed” by demonstrating airway reversibility, such as a positive bronchodilator response on spirometry, or a methacholine challenge test, in addition to a clinician’s diagnosis of asthma. However, airway reversibility can be more difficult to demonstrate with chronic asthma and also with the use of asthma medications, especially steroids.

There are several sources clinicians can use to obtain information about possible isocyanate work exposures. By far, the most important is a careful occupational history, which should include the type of products used, work tasks and processes, and the use of any personal protective equipment (PPE) including appropriate skin protection. Clinicians should be mindful that spray operations and heating increase opportunities for exposure. Industrial hygiene (Continued on page 6)
Dr. Albanese gave an overview of hematopoietic, vascular, gastrointestinal, and neurological effects of radiation, as well as overviews of the stages of illness: prodromal, latent, manifest, and death versus recovery, emphasizing that there is a somewhat predictable course.

Finally, he touched upon the overview of treatment, again emphasizing that the cornerstone is clothing removal and decontamination.

The second speaker was Tom Shedlosky, who has over forty years of experience in the nuclear industry. While employed by the Nuclear Regulatory Commission he assisted in formulating regulatory policy, he contributed to developing portions of its reactor safety review program and to the use of probabilistic risk analysis. He currently serves as a consultant for nuclear reactor safety. He gave an overview of the numbers and types of nuclear reactors in use in the United States today: 69 pressurized water reactors and 35 boiling water reactors.

Mr. Shedlosky also discussed the nuclear accidents at Three Mile Island, Chernobyl, and most recently Fukushima Daiichi.

The conference concluded with a tour of the facility’s training simulator. The simulator is an exact duplicate of the control rooms and allowed attendees to see first-hand how a nuclear power facility is managed.

Audio recordings of the speakers will be available on the NEOEM Podcast site, www.necoem.org.

All lecture slides of the conference are located on NEOEM’s website under the library section.

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https://election.acoem.org
**Isocyanates (Continued from page 4)**

Data are rarely available and are not necessary to make the diagnosis; non-detectable airborne isocyanate levels do not rule out the diagnosis. Relevant MSDS should be reviewed carefully, as the numerous isocyanate formulations and nomenclatures can be confusing, and the MSDS provided can be for the finished products, rather than what the worker used.

An association between work exposures and asthma is most commonly based on a careful history. The timing and onset of rhinitis and asthmatic symptoms in relationship to work and specific work tasks should be clarified, especially when symptoms first began. As delayed symptoms are particularly common with isocyanates, it is important to ask about evening (after work) symptoms, and if symptoms improve when away from work, such as days off or vacations, and worsen when returning to work. Peak flow recordings at work and away can be helpful, but work-related changes in peak flows can be difficult to document and interpret, especially when exposures are variable, and if the worker only takes 1-2 days off work at a time.

**Prevention and Surveillance**

Isocyanate asthma is preventable. Prevention depends on controlling exposures, which can be challenging, in part due to the complexities involved in measuring exposures, including skin exposure. Medical surveillance of exposed workers is recommended, including preemployment and annual follow-up spirometry and questionnaires, with more frequent surveillance in the first 1-2 years of work with isocyanates. Improved isocyanate-specific immunoassays may be useful exposure biomarkers.

**Got OM Board Certification?**

Do you work in Occupational Medicine, but never had the time for formal training? The Harvard School of Public Health (HSPH) has a new Complementary Pathway approved by the American Board of Preventive Medicine (ABPM). This unique program offers mid-career practitioners of OM to gain board certification with one-year of training, which may be accomplished half-time over two years. Thus, allowing the candidate to continue to work. Depending on past experience and coursework, HSPH will design an appropriate, individualized curriculum for each accepted resident. Briefly, appropriate candidates will be currently working in OM with two or more years of full-time OM work experience; must have completed a prior residency in the US or Canada AND be currently (ABMS) Board Certified in a related field.

NECOEM member, Paul Medrek MD, MPH, who formally trained in emergency medicine is the first practitioner to enter this program after years of OM experience. Dr. Medrek has found the program to be challenging, rewarding and highly worthwhile. For more information on eligibility requirements and curriculum, please contact Stefanos Kales MD, MPH, Program Director: skales@hsph.harvard.edu.

For a perspective from a colleague in the program, please contact Dr. Medrek: pmedrek@cox.net.

Paul Medrek is a consulting physician at Blue Cross Blue Shield of Massachusetts
gather the necessary stakeholders together (state and federal senators, Workers’ Compensation Court judges, OEM professionals and the CHCs themselves) to take these important data and begin to apply them. There are a significant number of injured workers whose workers’ compensation coverage is denied when applying for care at the CHCs. Their care is often profoundly delayed, which leads to prolonged recovery and possibly termination from work. The care they do finally receive is cost-shifted to government rather than have the private payers involved. These patients and their families quickly become poor with a percentage losing their homes, leading to further cost shifting to government. Inevitably, they become depressed, in chronic pain and treated with increasing doses of narcotics. I have been appalled to see how many of these former workers reach bottom when they are inevitably labeled as “chronically disabled” and further cost-shifted to Social Security Disability Insurance. I have been working with a large network Community Health Center in Rhode Island where there is an obvious need for education and training of the providers and administrators, from the primary care doctor to the billing department and registration. Further consultation services are planned, in addition to outreach and education of patients in order to inform them of their rights and responsibilities under workers’ compensation. The CHC should see the fruits of this labor as a new or enhanced revenue stream from the private insurers. The Workers’ Compensation system is set up as a “no-fault” mechanism to ensure care and wage replacement for injured and sick workers. Employers receive freedom from lawsuits in exchange for carrying insurance. Let us all roll up our sleeves and participate wherever we can to support access to care and enhanced prevention in the workplace. We must act to support a system that is already legally enshrined but dysfunctional. Every worker deserves to have a safe workplace and if hurt, freedom from the horror of chronic injury and poverty.

Robert Naparstek is a Fellow of ACOEM and is exploring how to make a Public Health impact in his new home state of Rhode Island.
NECOEM is a not-for-profit, regional component society of the American College of Occupational and Environmental Medicine, the pre-eminent organization of occupational and environmental physicians, associate and affiliate clinicians.

NECOEM has over 240 physician, associate and affiliate members and is dedicated to preventing and treating occupational injuries and illnesses. NECOEM provides continuing medical education for its members and other clinicians in order to enhance the care that they provide to men and women in the workplace. NECOEM is an advocate for workplace safety, occupational health research, raising public awareness of occupational and environmental health issues, providing guidance on public health policy, and recognizing outstanding achievement by individuals in occupational and environmental health.

The editorial board welcomes letters to the editor. Write or email to NECOEM at the above address. The editor reserves the right to edit letters for publication purposes.

PLEASE WELCOME OUR NEW CO-EDITOR OF THE NECOEM REPORTER!

Matthew Lundquist, MD MPH is board certified in Internal Medicine and board eligible in Occupational Medicine with an additional certification as a Medical Review Officer. Dr. Lundquist received his BS at Cornell University, his MD at SUNY Stony Brook, and his MPH at Yale University. He completed residency in 2009 in Internal Medicine at Yale-New Haven Hospital and a fellowship in Occupational Medicine at Yale University in June 2011.

Dr. Lundquist recently began working as a staff physician at Middlesex Hospital Occupational and Environmental Medicine Clinic in Middletown, CT where he sees patients full-time. He has interests in public health, employer wellness programs, and the role of insurance in health care. He currently resides in central Connecticut with his wife and son. Outside hobbies include golf, spending time with family, and watching his beloved New York Mets, Jets, and Islanders struggle through their respective seasons.