



National Association of State EMS Officials

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FATIGUE IN EMS RISK MANAGEMENT GUIDELINES GO LIVE!!

January 11, 2018 (Falls Church, VA) Workplace fatigue is a common complaint among shift workers. Emergency Medical Services (EMS) personnel work shifts and deliver emergent health care to the acutely ill and injured on the roadside, in patients' homes, and other environments. They must deliver this care while under significant time pressure and stress. Fatigue is a threat that is often overlooked by EMS leadership and personnel as "just part of the job."

The number of fatigue-related safety incidences involving EMS personnel and their patients is on the rise. Recent research shows that more than half of emergency medical services (EMS) personnel report severe mental and physical fatigue while at work, poor sleep quality, and poor recovery between shifts. Half of EMS personnel obtain less than 6 hours of sleep per day. The industry has a fatigue problem, yet few have developed solutions informed by the evidence or best practice.

The National Association of State EMS Officials (NASEMSO) has partnered with a team led by University of Pittsburgh School of Medicine scientists to develop new fatigue guidelines published early online in the journal *Prehospital Emergency Care*. The aim of the guidelines is to mitigate the effects of fatigue with recommendations based on a comprehensive evaluation of the best available evidence related to numerous fatigue mitigation strategies such as using caffeine and napping during shifts.

"Evidence Based Guidelines for Fatigue Risk Management in Emergency Medical Services" are now available at <http://tandfonline.com/doi/full/10.1080/10903127.2017.1376137> and all companion materials, including background information, systematic reviews, evidence tables, and expert commentaries can be freely accessed at <http://tandfonline.com/action/showAxaArticles?journalCode=ipec20>.

"Fatigue is widespread in EMS and is not isolated to one type of EMS operation or category of EMS clinician. The administrators of EMS organizations are tasked with creating shift schedules and mitigating threats to safety. Unfortunately, these administrators are not equipped to address fatigue in the workplace, in part because they have no guidance on how to manage fatigue in the workplace," said Daniel Patterson, Ph.D., lead author, assistant professor of emergency medicine at the Pitt School of Medicine, and active paramedic clinician. "Operating an ambulance is dangerous and fatigue can threaten safe operation of the vehicle," said Patterson. "Aside from driving, most of the work EMS clinicians do is patient care, and fatigue can have negative consequences for decision-making abilities and overall performance. The outcomes of fatigue can be devastating for EMS personnel and their patients."

Patterson and his team of two-dozen co-investigators and staff reviewed more than 38,000 pieces of literature, completed seven systematic literature reviews, including three meta-analyses. Investigators synthesized the quality of the evidence for a panel of experts, who used this information to create evidence-based guidelines for fatigue risk management.

The guidelines consist of five recommendations:

- Use of fatigue/sleepiness surveys to measure and monitor EMS personnel fatigue.
- Limit EMS shifts to less than 24 hours in duration.
- Provide EMS personnel access to caffeine to help stave off fatigue.
- Allow EMS personnel the opportunity to nap while on duty.
- Provide education and training in fatigue risk management to EMS personnel.

Patterson and his team expect the guidelines to have a wide impact on improving practice and policies to alleviate EMS personnel fatigue, whether when driving an ambulance or caring for patients.

Additional contributors to the study included: From the University of Pittsburgh, Christian Martin-Gill, MD, MPH, Anthony Fabio, PhD, MPH, Francis X. Guyette, MD MPH, Charity Moore, PhD, Daniel Buysse, MD, and Denisse Sequeira. From Harvard University, Laura Barger, PhD and Matthew Weaver, PhD. From the State University of New York at Buffalo, David Hostler, PhD, Jennifer Temple, PhD, and John Violanti, PhD. From Mecklenburg County EMS Agency, Jon Studnek, PhD, Allison Infinger, MSPH, and Josef Penner, MBA. From the University of Calgary Eddy Lang, MD. From Carolinas HealthCare System, Mike Runyon, MD. From the Institute for Behavior Resources, Inc., Francine James, PhD and Lauren Waggoner, PhD. From Washington State University, Hans Van Dongen, PhD. From Columbia Southern University, David Becker, MA. From Rowan County EMS Agency, NC, Bradley Dean, MA. From the National Highway Traffic Safety Administration, Stephen Higgins, PhD. From Geisinger Health System, Douglas Kupas, MD. From the University of Virginia, George Lindbeck, MD. From American Medical Response, Mr. Ron Thackery. From the National Association of State EMS Officials, Kathy Robinson and Dia Gainor.

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