

The workers were exposed to a mixture of poorly characterised inhaled toxicants. A variety of acute and chronic respiratory illnesses have been reported among all exposed workers, which are the subject of large scale ongoing investigation and follow up. The predominant WTC related chronic lower airway disorders have been clinically characterised as irritant-induced asthma, nonspecific chronic bronchitis, chronic bronchiolitis, and aggravated pre-existent chronic airway disease. In addition to those, several often limited case reports, case series, and small studies have suggested other associated lung diseases among those workers. Lung function surveillance, which demonstrated an exaggerated one time expiratory flow loss (about 500 ml), has shown an average expiratory flow decline in subsequent years that seems to follow age-related rates. This episode clearly invited reflection on the characterisation of chronic airway diseases, risk factors for respiratory health, and respiratory epidemiology methods.

1608d **CHANGING PHYSICIAN BEHAVIOUR – WHAT WORKS? A SNAPSHOT OF AN INTERVENTION TO IMPROVE MONITORING AND MEDICAL CARE FOR SURVIVORS AND RESPONDERS OF THE 9/11 TERRORIST ATTACKS**

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10.1136/oemed-2018-ICOHabstracts.322

Introduction and objectives After the terrorist attacks on September 11, 2001, there was a demonstrated need to develop monitoring and treatment programs for responders and local community survivors of the events. Almost immediately, the Fire Department of the City of New York initiated a screening program for FDNY responders. The Medical Monitoring Treatment Program began to monitor law enforcement and general responders in the New York City area. The New York City Health and Hospitals group established a program for area workers, residents, and those who were in the dust or dust cloud on 9/11 – the group now referred to as ‘survivors.’

Methods At the onset of the Program, a comprehensive outreach and education strategy was created to reach potentially eligible 9/11 responders and survivors. A treatment Referral Program was established with the New York City Department of Health and Mental Hygiene, WTC Health Registry. These efforts proved successful in enrolling new members. However, a gap was identified in how information about the program and related health conditions were being disseminated to medical health professionals who were in a unique position to refer patients to the Program for care.

To reach healthcare providers the Program contracted with WebMD-Medscape, a leading online source of information for the medical community and healthcare professionals. The goals of partnering with Medscape were: to increase provider awareness about WTC Health Program screening and treatment, provide training materials to external healthcare providers to ensure consistency and quality related to screening and treatment, incentivize the use of training materials by offering CME/CE credits through a free and easy to access system, and to archive WTC Health Program knowledge.

Through the partnership with WebMD-Medscape the Program created five products:

1. After the 9/11 Terrorist Attacks: The World Trade Centre Health Program and Disaster Response
2. Health Risks Associated with 9/11 and the WTC Disaster: Lessons Learned
3. Advances in Screening and Treatment for WTC Responders and Survivors
4. Airway, Digestive, and Mental Health Comorbidities in WTC Responders and Survivors
5. Cancer in the WTC Health Program

Results

- Reached over almost 45 000 healthcare providers in 45 states, the District of Columbia, and non-continental US Territories
- 77% of learners who took the post-test indicated they will make a change in their practice and 50% of those indicated they were very committed to making this change.
- On average, 22% of test takers said they plan to modify treatment plans, 19% will change their prevention practice, 12% will incorporate different diagnostic strategies and 10% will use alternative communication methods
- On average 50% of the test takers are very committed to making the change and 32% were somewhat committed.

Conclusions

- Continuing education trainings are an effective tool for sharing research with healthcare providers.
- The five CME/CE programs credited by the WTC Health Program reached a large number of healthcare providers and led to improved awareness and treatment for 9/11-related diseases.

1449 **EBOLA VIRUS DISEASE: CHALLENGES AND CONTINGENCIES FOR NIGERIA'S OFFSHORE INDUSTRY**

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10.1136/oemed-2018-ICOHabstracts.323

Introduction The largest outbreak of Ebola Virus Disease (EVD) was first reported by Guinea to the WHO in March 2013. From that time, the outbreak spread to Liberia, Sierra Leone, Senegal and Nigeria. The virus was exported to Nigeria in July 2014 by a business traveller from Liberia. As of September 2014, 20 cases (including the index case) had been reported with 8 deaths. However, it is the novel challenge posed by the presence of the virus to the offshore industry in Nigeria that required offshore operators to adapt and innovate emergency and crisis preparedness measures in dealing with the EVD situation. This paper shares the experience of a major offshore exploration and production player in Nigeria in operationalizing, through an incident management system approach, the different facets of preparedness for an EVD crisis within its offshore space.

Methods Primary data was gathered through direct observation, witnessing and participation in preparedness activities related to a potential offshore EVD case.

Results The incident management system approach proved to be useful and adaptable to non-traditional occupational and business risks, with regards to preparedness and response. It was however clear that industry and government have a lot more to do and learn in terms of hazard identification, risk assessment and crisis preparedness of pandemics.

Conclusion The occurrence of a suspected EVD case in any offshore installation or facility will always require a multi-sectoral response. It is a matter of national importance as for example; the principle of quarantine enforced on a host offshore facility will pose practical and epidemiological curiosity; repatriation of affected expatriate workers will require deployment of foreign diplomatic/military missions, and port control formalities installed once a case is declared in-country often requires inter-governmental collaboration. While research continues to study behaviour and pathogenicity of new viral strains of epidemic potential, industry and governments must maintain realistic and regularly 'drilled' pandemic preparedness plans.

541 FIRST AID IN THE WORKPLACE IN THE WORLD: A SYSTEMATIC REVIEW

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10.1136/oemed-2018-ICOHabstracts.324

Introduction Implementing an effective First Aid system at the workplace is a major challenge taking into account the increasing frequency of cardiovascular disorders, easy access of defibrillators, and legal consequences of injury occurring in this particular setting. The aim of the study was to perform a systematic review to evaluate the current knowledge of First Aid techniques at the workplace.

Methods Five databases (Pub-Med, Web of Science, Science Direct, Institut National de recherche et de Sécurité (INRS) and European Reference Centre for First Aid Education (ERCFAE) were searched since 2000, using the keywords « First aid », (« Workplace », or « Occupational disease »). The full-text articles included had to take place at the workplace and to describe a First Aid intervention. A two-stage process with two independent readers was used to select relevant papers.

Results 18 studies were included in the systematic review on the 168 records screened. Studies were mainly from Europe and North America: 5 referred to the regulation of first aid at the workplace, 8 to the organisation, 3 to the training and 2 both to regulation and organisation. Legislation and organisation of the emergencies at the workplace were very different between countries and disparities even existed within a same country. Employees involved in First Aid interventions should benefit from an adequate theoretical and practical training as well as suitable places with an access to the adapted equipment they need. On the training aspect, interest of refresher courses has shown better results in terms of knowledge and theoretical and practical skills.

Conclusion First aid at the workplace seems to be important even if the countries didn't make specific and homogeneous recommendations on the subject. Develop an effective First Aid system at the workplace means acting on occupational injuries and helping to prevent occupational risks.

1160 EARLY DEFIBRILLATION IN WORKPLACES IN ITALY

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10.1136/oemed-2018-ICOHabstracts.325

In Italy the presence of AEDs and people trained is mandatory in sporting centres, while in industrial sites, places with high traffic of people (stations, stadiums, theatres, shopping centres) or isolated and difficult to reach (trains, planes, boats) is, at the moment, only recommended.

In the workplace, the organisation and management of first aid are established by law (Legislative Decree 81/2008 and Ministerial Decree 388/2003): the occupational physician takes care of the organisation of the company's first aid system, while the management in case of incident goes through lay rescuers, specifically identified and properly trained, and the local emergency medical service (EMS).

The first aid training lasts 12–16 hours, with specific learning objectives defined by law, includes about 5 hours of cardio-pulmonary resuscitation manoeuvres. Therefore adding the use of AED to the training program would not entail an additional cost for the companies, both in economic terms and in time. It would only be necessary to respect the internationally agreed features on didactic content, student/instructor relationship, training on manikin, learning test and more frequently retraining. Instead, the benefits would be significant: increase of the efficiency of first aid courses, improvement of public access network to early defibrillation and rise of bystanders able to intervene in case of emergency.

To promote the diffusion of early defibrillation culture INAIL established a discount of insurance premium for those companies that are not required to have an AED, but who choose to have it to protect the health of their employees and customers.

Unfortunately the diffusion of this culture is made difficult by the involvement of various agencies (emergency systems, regional administration) that control the authorisation procedures for AED training often in a different way in the national territory. We therefore hope for greater homogeneity between the various regions and simplification of the procedures.

221 EVALUATION OF STRESS AND ANXIETY IN A GRIMED POPULATION PLAYING THE ROLE OF VICTIMS IN A LIVE TERRORIST ATTACK EXERCISE

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10.1136/oemed-2018-ICOHabstracts.326

Introduction Emergency Medical Services (EMS) organise simulation exercises in near real conditions. In this exercises, volunteers usually act as victims. We set up a large-scale simulation exercise. The scenario was a terrorist attack causing 153 victims. Victims were played by nurse students. The aim of our study was to evaluate if playing a role of victim could generate stress and anxiety.