

Abstracts of Scientific Papers-WADEM Congress on Disaster and Emergency Medicine 2017

An Overview of the United States Strategic National Stockpile Capabilities and Formulary Decision-Making Through the Public Health Emergency Medical Countermeasures Enterprise

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Study/Objective: Learning Objectives: 1) Understand the mission and capabilities of CDC's Strategic National Stockpile. 2) Understand the Public Health Emergency Medical Countermeasures Enterprise governance process regarding review and recommendations for the SNS formulary. 3) Understand the current activities and initiatives of CDC's Strategic National Stockpile to enhance the nation's preparedness for an emergency response requiring rapid deployment and utilization of MCMs.

Background: The United States is prepared for responding to national health security threats from chemical, biological, radiological, and nuclear (CBRN) agents, and emerging infectious diseases. Under the leadership of the US Department of Health and Human Services (HHS), the Public Health Emergency Medical Countermeasures Enterprise (PHEMCE) is the federal coordinating body that reviews the SNS contents and makes MCM formulary recommendations annually. MCMs are held in the Centers for Disease Control and Prevention (CDC) Strategic National Stockpile (SNS), which contains a broad range of emergency medical countermeasures. The Division of Strategic National Stockpile (DSNS) works across the medical supply chain to ensure that stockpiled MCMs are maintained and are available for deployment on short notice, and that capabilities exist to rapidly distribute and dispense these MCMs. This session will address the mission and capabilities of the SNS, including: Federal prioritization process for current and planned medical countermeasure procurement and stockpiling; Ongoing work to ensure state and local capabilities exist to receive and dispense MCMs to their populations in an emergency response; Engagement with the private sector medical supply chain to improve access to limited MCM resources; and Current SNS capabilities to support state and local response to a public health emergency.

Methods: Not applicable.

Results: Not applicable.

Conclusion: This session will describe the role and capabilities of CDC's SNS to meet the nation's requirements for MCMs in a public health emergency. These processes may be scalable and adaptable to other countries performing stockpiling activities.

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Legislations to Support the Pharmacist's Role in Natural Disasters

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Study/Objective: The objective of this study was to draft a document compiling key legislations required to support the pharmacist's role in natural disasters.

Background: In a natural disaster, access to health care providers becomes limited. Pharmacists possess the education required to support members of the health care team in a non-traditional pharmacist role.

Methods: Focus groups with a working group of experts at the International Pharmaceutical Federations were conducted. The focus groups were informed by a literature review of pharmacy legislations that support pharmacy practices around the world and what is needed in a natural disaster situation.

Results: This literature search resulted in a document that highlighted the importance of key legislations in supporting the role of pharmacists in natural disasters. The International Pharmaceutical Federation (FIP) working group met three times to provide feedback and revisions on the draft document. There were five recommendations identified. The first was allowing pharmacists to prescribe or dispense, for continuity of care and for optimization of therapy through emergency supplies, therapeutic substitutions, prescribing for minor ailments, and prescribing under medical directives. The second was allowing pharmacists to administer drugs by injection such as vaccinations. The third was allowing pharmacies or agencies to monitor and control the over-the-counter drug sales for outbreak detection. The fourth was providing specific protocols for the control and disposal of narcotic and controlled drugs. The final recommendation was human resources management, which would recognize foreign pharmacist/pharmacy licensures and registrations.

Conclusion: There are several components of these recommendations currently implemented in various countries, but there is no consistency between countries. Legislations regarding emergency natural disasters would improve response time, as well as quality of care in a crisis. Implementing these key recommendations would allow pharmacists to practice within their scope during a natural disaster to alleviate strain on the health care team.

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Ready, Willing, and Able: The Role of Pharmacists in Natural and Manmade Disasters - Can We Do More?

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Study/Objective: The purpose of this study is to describe all potential roles pharmacists can undertake during disasters, across the four stages of disaster health management – Prevention, Preparedness, Response, and Recovery (PPRR), and identify the barriers to implementing these roles.

Background: The collapse of basic health care services following a disaster is the highest cause of mortalities, with the inability to access medications being the main reason. Pharmacists are reported to be the most easily accessible health care professional and are the third largest health care provider after doctors and nurses. In disasters, many affected people seek the assistance of pharmacists first before potentially being referred on to a doctor or hospital. Pharmacists are on the frontline of continuity of care. The traditional role pharmacists play in times of crisis is a logistical role, maintaining the medicines' supply chain from manufacturer to patient. Although this is an essential role during disasters, it is not utilising pharmacists' entire skill set and knowledge. Disaster research is beginning to identify potential roles pharmacists can fulfil during natural and manmade disasters.

Methods: Semi-structured interviews will be conducted with stakeholders and pharmacists across the disaster health management spectrum. Interviews will be recorded. Data will be analyzed by two methods - manual open and axial coding using the software NVivo, and then using the text analytics tool Leximancer. This will provide triangulation of methods. The data will be used to develop a conceptual framework model outlining the potential roles pharmacists can fulfil during disasters and highlighting the barriers to implementing them.

Results: The results will identify the roles and responsibilities pharmacists can undertake during disasters, expanding from the traditional logistical role to a patient-centered role taking care of the non-emergent health concerns. It will recognize and address the barriers and limitations to implementing these new potential roles.

Conclusion: These results will form the basis for a conceptual framework model identifying the roles pharmacists can undertake in disasters and the economic impact on the health care system on implementing them.

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Impact of Cyclone Yasi on Antidepressant and Anxiolytic Medication Use in Affected Areas of North Queensland

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Study/Objective: The objective of this study was to determine whether there were significant changes in prescription rates of antidepressant and anxiolytic drugs following Cyclone Yasi, and if this was affected by the extent of damage sustained by the area.

Background: The global change currently occurring in climate is expected to increase the incidence of extreme weather events, such as cyclones and flooding in Australia, which are particularly prevalent in north Queensland. In monetary terms, the average annual cost of tropical cyclones in Australia is \$266 million, equating to approximately 26% of total disaster spending each year. Natural disasters often elicit different responses, with the degree of exposure often influencing the presentation and severity of psychological events. Although the supply chain during natural disasters has been investigated, there has been little research into the effect on medication usage after natural disasters.

Methods: A quantitative determination of new prescriptions of antidepressants and anxiolytics was conducted. Using data collected from regulatory authorities for the affected region, the total number of new prescriptions for these drugs was calculated for the period six months after the cyclone, and compared with the same six month period in the preceding year. Two control drugs were also included to eliminate any changes in general rate of drug prescription in the affected communities.

Results: Prescriptions of all antidepressant and anxiolytic drugs increased in the periods following Cyclone Yasi. There was a greater increase in prescription rates in the 14 to 54, and 55-95 year old categories in those areas that were directly hit by Cyclone Yasi (6.4%:5.2%), compared to those not directly hit areas (2.7%:3.3%).

Conclusion: Although the increase was less than expected, it was concluded that there is a direct correlation between the extent of exposure to the event, the degree of damage, and increased rates of antidepressant and anxiolytic prescriptions.

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A New Recipe for Disaster Training in Australia

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Study/Objective: To develop core competencies and training recommendations for Australian Pharmacists to prepare them for responding to disasters.

Background: Health professionals contribute during disasters in an array of settings and roles. Pharmaceutical associations encourage pharmacists to be prepared and participate in disasters within 'traditional' and 'extended scope' roles. A plethora of training and competencies exist globally for health professionals in disasters. However, for one of the most accessible health professionals, pharmacists, training and competencies are lacking. Within Australia, there are currently no competencies or comprehensive training exclusively for pharmacists within a disaster context.

Methods: Four key investigative methods will be used to contribute to final recommendations for competence and training. 1. A comprehensive review of disaster training and competencies available for pharmacists and other health professionals nationally and internationally. 2. Distribution and completion of a validated survey targeted at organizations known to utilize health professionals during disasters. 3. Semi-structured interviews to