

Hospital Preparedness in Facing the COVID-19 Pandemic Based on the Command System: A Study in Jakarta and Yogyakarta, Indonesia

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Introduction: Hospitals have had Hospital Disaster Plans (HDP), however, when the COVID-19 pandemic attacked, several hospitals neglected the HDP. They seem to find it difficult to operationalize HDP. The hospital's problems were also increasingly complex because they must also think about how to break the internal transmission chain and how to deal with the surge in COVID-19 patients besides building a clear incident command system (ICS). This study aimed to carry out documentation and analyze hospital preparedness in dealing with COVID-19 based on the ICS.

Method: This study was documentation research using a qualitative approach. All hospital preparations in "high case" areas in Jakarta and Yogyakarta from April to June 2020 were documented, followed by interviews and document observations. Furthermore, data were analyzed according to the ICS management functions; commander, secretary, operational, logistics, planning, and financial administration.

Results: Since the COVID-19 pandemic, hospitals had developed a separate COVID-19 handling system from the existing HDP documents. The analysis showed the division of tasks and functions of each field in the COVID-19 Task Force already existed, but it had not been described in detail. The communication and procedure flow within the internal and external COVID-19 task force were generally only verbal. In conclusion, related to the readiness to face the surge in COVID-19 patients, the hospitals have not made any plans or supervision for handling COVID-19.

Conclusion: Hospital preparedness in the face of the COVID-19 pandemic based on the Command System has not been maximized. The existing HDP only includes planning for natural disaster management. Furthermore, every health facility established the COVID-19 Task Force. However, the principle of division of tasks, communication, and planning flow in the Task Force still needs to be improved.

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International EMT-Operational Plan-ODESA Escalation

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Introduction: Since February 24, 2022, at the time of writing this plan, approximately 400,000+ refugees had entered Moldova and 282,842 had exited Moldova. EMTCC will need to coordinate international medical teams assisting with the increasing refugee numbers crossing into Moldova from southern Ukraine for the MOH and international EMT's in support of trauma management in Palanca and related borders and referral to health care facilities within Moldova.

Method: This EMTCC operational plan sets objectives and explores trigger points that require actions in the context of International EMT's, two service levels were trauma triage/stabilization and primary health care.

Results: Odesa was a city located approximately 60 kilometers from the Moldova border crossing of Palanca. Trauma patients reaching the Palanca border would need to be identified in vehicular columns by roving triage teams (EMT 1 M) and expedited through the border. Survivability of severe trauma patients proceeding through the border crossing and expected to transit through to tertiary level care would be low without the intervention of trauma stabilization teams (damage control). The initial positioning of at least 2 trauma stabilization points would require the support, skills, logistics and self sustainability of classified EMT's or similar. These would also need the additional support of specialized trauma/surgical cells at both Stefan Voda and Causeni Hospitals.

Conclusion: Odessa escalation should have been the worst scenario, but we were able to work with MOH in Moldova to develop a plan to save more lives for trauma patients reaching the Palanca border.

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Resolving the Gap: National Pediatric Disaster Coalition

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Introduction: Children younger than 18 years constitute approximately 25% of the US population. During disasters, they are the most vulnerable population and have age-specific vulnerabilities that heighten their risks and magnify their unique needs. These include physiological vulnerability to pathogens, toxins, radioactive isotopes, and harsh conditions. Increased skin permeability, faster metabolism, more active cell division, higher respiratory rate, and higher surface area-to-mass ratio all contribute to greater susceptibility to physical threats. Behavioral/Developmental differences such as more hand-to-mouth contact, under-developed sense of self-preservation, more time spent outdoors, difficulty communicating symptoms and increased vulnerabilities. Children in disasters may develop mental health problems, including acute and post-traumatic stress disorder, and depression. Some children with disabilities are dependent on medical technology.

Method: A US national conference in 2015 determined that significant gaps in pediatric disaster preparedness include transport, space, staffing, equipment, supplies, and training capabilities. To address these gaps the National Pediatric Disaster

Coalition (NPDC) was established to advocate for enhanced pediatric disaster preparedness, and advance community healthcare preparedness, mitigation, response, and recovery for infants, children, and families in disasters.

Results: The NPDC consists of subject matter experts, national advisory committees, commissions, agencies, and organizations. It utilizes pediatric SME knowledge to help plan for the allocation of appropriate and essential resources to address pediatric specific needs in disasters. It serves as an information clearinghouse on pediatric disaster preparedness informed by real events, research and evolving best practice. The NPDC disseminates information through organizing and participating in conferences, and web-based training.

Conclusion: Based on the special needs of children in disasters, the NPDC assessed current gaps and has established an effective advocacy and information sharing platform to match resources to pediatric needs during disasters. The NPDC can serve as a model for addressing gaps in the special needs of children and their families during disasters.

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Improving Physician Response and Recall When Activated for Mass Casualty Incidents

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Introduction: Mass casualty incidents (MCI) overwhelm existing resources in the emergency department. The existing method to recall staff in an MCI is text notification through the hospital call center. This study aims to assess the effectiveness of a novel method to recall senior emergency physicians during an MCI.

Method: For this method, upon notification of a MCI, the senior physician on duty will start call tree activation based on four different senior physician job grades. He/she will call the first physician for each grade, who takes over calling and activating the remaining physicians in the same grade with a maximum of two attempts. Each physician receiving the activation call then texts an acknowledgement and estimated time of arrival at the department in the group chat. An unannounced, simulated MCI event was conducted at 02:00 and 14:00 on a weekday. Effectiveness was determined by the proportion of senior physicians available within 60 minutes of activation.

Results: For the 02:00 activation, three of the 25 senior physicians were on clinical duty in the hospital while nine were contactable within 15 minutes and thirteen after 30 minutes. Eleven were able to return to the hospital in 60 minutes or less and one beyond 60 minutes. Nine were local but unable to return and one was overseas.

For the 14:00 activation, four of the 25 senior physicians were on clinical duty in the hospital while 15 were contactable within 15 minutes and six after 30 minutes. Nine were able to return to the hospital in 60 minutes or less and four beyond 60 minutes. Three were local but unable to return and five were overseas.

Conclusion: This method can achieve rapid manpower augmentation with more than half the staff present in the hospital within 60 minutes. Drills involving physical recall should be performed to further test this workflow.

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Assessment of Disaster Preparedness Levels of Emergency Department Physicians in Kuwait

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Introduction: Global disasters have increased over the last century, with growing numbers of people affected. In the Middle East and North Africa, natural disasters have tripled since the 1980s. Education and training for disaster preparedness for healthcare providers can help reduce vulnerability to disasters by improving their knowledge and response effectiveness. Physicians working in the emergency department are integral members of the response to those incidents. Currently, no studies describe how much training or experience in disaster preparedness exists for physicians working in the emergency departments in Kuwait. However, comparable studies in different regions have illustrated the importance of researching this field. This paper aims to assess the disaster preparedness levels of emergency department physicians in Kuwait.

Method: An online survey will be sent to the physicians working in the emergency departments of the seven general hospitals in Kuwait. This survey consists of four domains:

- 1) Demographics: personal and professional characteristics of participants.
- 2) Education and training: exploring the involvement of participants in prior formal training courses or exercises in disaster preparedness.
- 3) Experience: assessing the involvement of participants in the mitigation or response to previous disasters.
- 4) Knowledge and perception: participant awareness of local hospital plans and systems as well as their attitudes and opinions about disaster preparedness.

Results: Data collection and analysis are planned for completion by March 31, 2023.

Conclusion: The needs assessment is essential to developing educational curriculums for any discipline. In disaster medicine, tailoring the training curriculum is especially important because learners might not have experience in the field due to the high acuity and low frequency of disasters. The results can be used to develop a roadmap for Emergency Physician training in disaster preparedness in Kuwait. In addition, the approach adopted in this paper can be used to assess further disciplines for disaster preparedness.

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