

## If We Open the Door—An Analysis of Prehospital Emergency Cases with the Need to Force the Door Open from Dresden, Germany

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**Introduction:** Germany is a highly developed country. Nevertheless, there are reports that people have supply problems or die lonely and alone in their homes. Despite a differentiated social system, there seem to be significant gaps for individuals or old people. The rescue service is often involved in situations with unclear emergency calls or calls from third parties regarding social and supply problems. In some emergency cases the rescue service is alerted to someone's home but there is no response. Depending on the available information, a timely decision must be made to have the opportunity for life-saving. The door opening procedure is executed by the fire department. Afterward, the medical emergency teams take over. The goal of the study is to analyze findings discovered after opening the door.

**Method:** Data of all emergencies from the dispatch center of Dresden operated by the fire and rescue department between January 2021 and December 2021 were recorded and transferred to a central database. All cases with the need to force the door open were extracted and analyzed.

**Results:** There was a total number of 157.522 cases of emergency. In 847 cases the door was opened by the fire department. After door opening there was no emergency reported in 265 cases. 100 patients were found dead, six patients had cardiac arrest and received cardiopulmonary resuscitation, and 310 patients were transported to a hospital. The causes for emergencies were social problems, downfall and injuries, hypoglycemia, convulsion, stroke, psychiatric emergencies, dementia and suicide attempt. The mean age was 71 [18-103], 54,15% of patients were female.

**Conclusion:** There is a high number of emergencies with the need to open the door. The number of patients transported to a hospital is also high and justified the procedure. Since numerous patients were found dead, this underlines a gap in the German social system.

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## Disaster Knowledge, Skills, and Preparedness among Emergency Medical Services in Saudi Arabia.

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**Introduction:** Emergency Medical Service (EMS) workers are critical to effective disaster response in Saudi Arabia. The World Health Organization requires countries and governments to have prepared emergency health workers and disaster action plans. Therefore, it is important to understand the disaster knowledge, skills, and preparedness of Saudi Arabian EMS workers. This study investigated factors influencing EMS workers' disaster knowledge, skills, and preparedness in the Saudi Arabian context.

**Method:** A descriptive cross-sectional survey using The Disaster Preparedness Evaluation Tool was distributed to EMS workers in military and government hospitals across three Saudi Arabian cities. Responses were recorded on a 6-point Likert scale where higher scores indicated higher knowledge, skills, or preparedness. The results were analyzed using descriptive and inferential statistical analysis.

**Results:** 272 EMS workers participated in this study. EMS workers reported a moderate level of knowledge (3.56), skills (3.44), and preparedness (3.73) for disasters. Despite the moderate level, EMS workers reported a high level of involvement in regular disaster drills (M=4.24, SD=1.274) and a strong interest in further disaster education opportunities (M=5.43, SD=1.121). Participants also reported a high skill level with the triage principles used in their workplace during a disaster (M=4.06, SD=1.218). The study findings revealed a significant positive correlation between disaster preparedness levels and age, years of experience, education level, and the facility worked in.

**Conclusion:** EMS workers have moderate disaster knowledge, skills, and preparedness levels. Knowledge, skill, and preparedness have a significant relationship with the EMS workers' demographics. These findings demonstrate the need to invest in preparing Saudi Arabian EMS workers to effectively respond to bioterrorism disasters.

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## From Two hours to Two Seconds: Using the Red Cross Red Crescent Health Information System (RCHIS) to Complete the WHO Emergency Medical Teams - Minimum Data Set Reporting

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**Introduction:** Standardization of data collection and reporting within EMT's is challenging. In past deployments, the Red Cross Red Crescent Type one and two facilities (Emergency Response Units- ERU's) have collected data by hand using paper-based form and Excel spreadsheets. This process can be laborious, time consuming and often inaccurate.

**Method:** RCHIS is both an electronic medical record (EMR) and health information system (HIS). RCHIS has been designed to produce pre-made reports including the MDS in seconds extracting data from the patient records. Through significant testing and pilot deployments in a domestic type one fixed clinic, the rapid production of reports such as the MDS has increased compliance and accuracy with reporting.

**Results:** The utilization of an EMR and integrated HIS system for increasing compliance and accuracy with the MDS has been hugely successful. An in-depth analysis of the export data was done to confirm the 100% accuracy within the MDS report.

Furthermore, feedback from users and managers within the ERU's expressed the excitement for the ease of reporting not only to the EMTCC, but also to IFRC and back-donors. Moving forwards, this data collection will also be used to collect essential data to audit and improve the quality of care provided within the RCRC ERU's.

**Conclusion:** In conclusion, the utilization of RCHIS within a domestic ERU (equivalent to an EMT type one or two) has been hugely successful. The next steps will involve the deployment of RCHIS within an international deployment.

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### Lessons Learned from an OB / Newborn / Neonatal Intensive Care Full-Scale Exercise

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**Introduction:** Children are frequently victims of disasters. However, gaps remain in disaster planning for pediatric patients. The New York City Pediatric Disaster Coalition (NYCPDC) is funded by the NYC Department of Health and Mental Hygiene (DOHMH) to prepare NYC for mass casualty incidents that involve large numbers of children.

On April 26, 2018, the NYC PDC conducted a first in NY, full-scale exercise with the NYC Fire Department (FDNY) testing evacuation, patient tracking, communications, and emergency response of the Obstetrics, Newborn and Neonatal units at a NYC based hospital. The goal of the exercise was to evaluate current Ob/Newborn/Neonatal plans and assess the hospital's ability to evacuate patients.

**Method:** The exercise planning process included a review of existing OB / Newborn / Neonatal plans, four group planning meetings, as well as, targeted specific area meetings and plan revisions. The exercise incorporated scenario-driven,

operations-based activities, which challenged participants to employ the facility's existing evacuation plans during an emergency.

**Results:** The Exercise assessed the following: Communication, Emergency Operation Plans, Evacuation, Patient Tracking, Supplies and Staffing. Internal and external evaluators rated exercise performance on a scale from 1-4. Evaluators completed an exercise evaluation guide based on the Master Scenario Event List.

An After Action Report was written based on the information from the exercise evaluation guides, participant feedback forms, hot-wash session, and after action review meeting. Strengths included the meaningful improvement of plans before the exercise (including the fire department) and the overall meeting of exercise objectives.

**Conclusion:** Lessons learned included: addressing gaps in effective internal and external communications, adequate supplies of space, staff, equipment needed for vertical evacuations; providing staging and alternate care sites with sufficient patient care and electrical-power resources. The lessons learned are being utilized to improve existing hospital plans to prepare for future full-scale exercise and or real-time events.

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### Le Grand Départ 2019 - health care management during a major planned event in the heart of Brussels (Belgium)

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**Introduction:** Mass gathering events (MGE), can attract sufficient attendees to strain the planning and response resources of the host community, state, or nation, thereby delaying the response to emergencies. The organization of such a MGE can be even more problematic when the event continues across much of downtown (including hospitals) and makes some parts of the city inaccessible. The aim of this study was describing the health care management of the Grand Départ of the Tour de France, July 6-7th, 2019. On both days, the stages drew crowds of 300,000 attendees, adding a quarter of the regular number of inhabitants of Brussels (1,2 million) and closing parts of downtown Brussels.

**Method:** Data were retrospectively collected from the in-event health services (coordinated by the University Hospital Brussels). Data regarding medical interventions, as well as data generated by the advanced medical posts (AMP) were recorded and handed to us after anonymization. For analysis, patients were divided into two groups: those seen by first-aid responders and paramedics (triage code green) and those seen and treated by health professionals (emergency nurses and physicians) (triage codes yellow or red).

**Results:** During the event, three AMPs were established along the route of the stage as were six ambulances, three mobile medical crews (one emergency nurse and one physician), and seven mobile first aid teams. Over the two days, 84 patients were seen; 80 green codes (95,2%), 3 yellow (3,6%), and one red