s136 Mass Gatherings

Background: The Belgian Red Cross provides first aid at 50 events with an attendance of more than 10,000 people every year. Since 2006, every patient encounter gets logged in a database called MedTRIS. The MedTRIS database contains more than 150,000 patient encounters.

Methods: The triage category of a patient is recorded upon entering the first aid post. Four categories are used: without treatment, first aid, medical condition and medical emergency. A "medical emergency" requires immediate attention of a physician, a "medical condition/case" can wait. Other patient's characteristics, such as type of injury and type of event, are also recorded. All recorded information was coded for analysis in SPSS©.

Results: 162.611 patient encounters are recorded in the MedTRIS database. 16.989 (10,5%) patients needed medical attention. 1080 (0,8% of total patient encounters) of these patients presented as a medical emergency. In the "medical condition/case" triage category the most prevalent type of injury was of the miscellaneous kind. This category represents -among others- urological and gynecological problems, eye abrasions and patients with chronic conditions. It is worth noting that some of the patients in the miscellaneous category probably belong in one of the other, more specific categories. Other types of injuries such as skin lesions, traumas and intoxications were roughly equally represented. However, in the "medical emergency" category, intoxications were more than three times as common as other type of injuries.

Conclusion: True medical emergencies remain infrequent. An on-site physician needs to be capable to treat a multitude of different conditions. However, it is important to note that a medical emergency often concerns an intoxicated patient. Therefore, extra training in this specific type of injury is advisable.

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## The Most Prevalent Injuries at Different Types of Mass Gathering Events: An Analysis of More Than 150,000 Patient Encounters

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**Study/Objective**: To determine the most prevalent injuries at different types of mass gatherings, to optimize the resources available on site.

Background: The Belgian Red Cross provides first aid at 50 events with an attendance of more than 10,000 people every year. Since 2006, every patient encounter gets logged in a database called MedTRIS. The MedTRIS database contains more than 150,000 patient encounters.

Methods: Upon entering the first aid post at a mass gathering, every patient receives a unique identifier. This identifier can be used to log patient data in a database called MedTRIS. Among the data recorded are the type of event (outdoor music festival, indoor music festival, outdoor Electronic Dance Music (EDM) festival, indoor EDM festival, city festival and sport event) and the type of injury (skin lesions, intoxications, traumas, neurologic events, gastrointestinal complaints, cardiac and respiratory

problems and a miscellaneous group). All the recorded information was coded for analysis in SPSS©.

Results: There were 162,611 patient encounters recorded in the MedTRIS database. Overall, the most prevalent type of injury are skin lesions (44,6%). The second most prevalent injury is trauma (15,5%). In third place comes neurological symptoms (12,7%), mainly because headaches are represented in this group. Intoxications only represent 3,5% of patient encounters. However, at (indoor) EDM events intoxications are more common and can represent up to 20% of patient encounters.

Conclusion: Skin lesions are by far the most prevalent injuries at mass gatherings. As such, the caregivers in the first aid post must be adequately trained in treating this type of injury. However, special considerations must be given to the type of event, especially at indoor EDM festivals where intoxication is more common.

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## Mobile Response by Medical First Responders at a Music Festival

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Study/Objective: Music festivals are a subset of mass gatherings prone to high-risk illnesses and injuries requiring dedicated on site medical services. Implementation of a mobile medical response to rapidly reach, stabilize, and transport patients is a major component of safety planning.

Background: The delivery of tailored mobile medical care at these types of events has the potential to improve outcomes by enhancing the speed and appropriateness of care to patients.

Methods: Mobile first response records were reviewed for a multi-day electronic dance music event. Information reviewed included demographics, call and transport times, chief complaint, acuity, location, and all interventions delivered on scene. Audio recordings of communications and mobile GPS data were also reviewed.

Results: 174 mobile responses were catalogued over the 120 hour period. 62 licensed prehospital volunteers served 15,000 attendees over a five-day period. 10% of calls were high acuity, 40% intermediate and 50% low. Peak call volume occurred in an eight hour period from 20h to 04h, with the three busiest hours from 21h to midnight (68% and 41% of all calls respectively). Altered mental status was the most common chief complaint. 79% of patients required transport to medical services and 7% were transported to harm reduction services. The average high acuity patient was reached in 4 minutes, with 8 minutes spent on scene performing targeted interventions. Basic airway manoeuvres and oxygen were the most common interventions required.

Conclusion: Response to medical emergencies at a multi-day music festival is aided by a well-prepared and organized mobile first responder program. The goal is to deliver rapid targeted care to the scene as part of the chain of survival. Suitable preparation for first response calls is likely to maximize benefits