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NON-COMPETITIVE DIVISION

Put to the Test – Emergency Plans in Iceland’s University Hospital

Background: Due to geographical conditions and harsh nature, Iceland is exposed to numerous hazards. The country is sparsely populated, has a small, centralized health care system, struggling with overcrowding. As such, it is vulnerable to overtriage in mass casualty incidents as there are limits to its surge capacity. Tourism has grown substantially in the last years increasing the risk of incidents involving mass casualties .

Objective: To describe and analyze the response of Landspítali University following two mass casualty bus accidents involving tourists; the condition of patients on admission and required hospital effort.

Methods: Data was collected from medical records of patients received at the hospital following a bus accident in the vicinity of Reykjavik 25th of October 2016 and in the southern region of Iceland on the 27th of December 2017, with regards to several variables, including condition on arrival and outcomes after the emergency department admission.

Results: Patient data revealed substantial overtriage in both incidents, 93% in the former and 81% in the latter. Both incidents required activation of Landspítali’s emergency response plan, involving majority of the hospital’s departments. Despite serious overcrowding in the ED at the time of both incidents, evacuation of

ED patients to wards and discharge of patients in several departments went relatively well, validating the importance of emergency response plans.

Conclusion: This study provides insight into patient related factors in mass casualty events, triage protocols and patients' outcomes that can be used to review and improve response of such incidents, both on scene and in hospitals.

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