

Despite the growing vulnerability, it has proven to be difficult to identify the most vulnerable persons.

Methods: Data used for the analysis comes from the RAI-HC database in Ontario (n = 275,854). Data links were made between the RAI-HC data and the 2013 hydro outage data (n = 10,748). The results were compared to non-exposed client data (n = 12,072). Methods used included frequency tabulation, bivariate and multivariate logistic regression, as well as Kaplan-Meier survival plotting and Cox proportional hazards ratios.

Results: The study led to the development of the Vulnerable Persons at Risk (VPR) and VPR Plus algorithms. These algorithms were highly predictive of mortality, LTC admission, and hospitalization. To test the ability and identify those most vulnerable, home care clients during disasters, the algorithms were applied to home care clients exposed and not exposed to the 2013 hydro outage. This analysis showed that exposed high-risk clients, identified by the VPR and VPR Plus, were more likely to die and to be admitted to LTC than non-exposed high-risk clients.

Conclusion: The analysis has shown the usefulness of information collected, as routine clinical practice, using inter-RAI assessment instruments during emergencies and disasters. The analysis further showed that the VPR/VPR Plus are valid and reliable algorithms.

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Analyzing the Emergency Triage Logbook Components of Road Traffic Accident Victims at AaBET Hospital in Addis Ababa, Ethiopia

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Study/Objective: To analyze demographic, clinical, and referral characteristics of patients presenting after Road Traffic Accidents (RTA) to Addis Ababa Burn, Emergency and Trauma (AaBET) Hospital (Addis Ababa, Ethiopia) over a seven month period.

Background: Within Africa, Ethiopia has among the highest burden of RTA. The country loses around 3,000 people from RTA annually. Nevertheless, there remains limited data on RTA victims presenting to urban Emergency Departments (EDs) in Ethiopia.

Methods: We conducted a retrospective chart review of all patients presenting after RTA at AaBET Hospital, from August 18, 2015 to March 9, 2016. Selected patient variables from ED triage logbooks were entered into Microsoft Excel and analyzed using SPSS version 21.

Results: During the study period, AaBET Hospital saw 662 RTA victims, comprising 32.1% of all trauma-related patients. Median age was 27 years. Using South African Triage Scale triage color categories, most patients were assigned lower triage acuity, with 289 (43.7%) patients assigned as Green and 273

(41.2%) patients assigned as Yellow. Of Green (lower acuity) victims (n = 289), the majority (54.3%) were referred from health institutions. Among those referred from health institutions (n = 408), 164 (40.2%) were referred without communication to the receiving facility. RTA patients coming from the scene were significantly less likely to arrive by ambulance [Adjusted OR = 0.3 (95%CI: 0.21-0.43)] as compared to those who were referred from health institutions.

Conclusion: In Addis Ababa, many patients being referred to a specialized trauma hospital after RTA have low triage acuity. Nevertheless, these referrals place highest demand on limited ambulance services, and often occur without clear communication between facilities. Strengthening primary health institutions to manage low-acuity RTA victims without referral may decrease strain on pre-hospital transport and trauma center resources, which may instead be directed toward RTA patients from the scene, and those suffering from more critical injuries.

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Controlled Undertriage - Hazard or Benefit at Overcrowded Emergency Departments (EDs)?

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Study/Objective: To verify if modification of the Emergency Severity Index (ESI) allows safe triage, when an increased patient influx, overflows available resources.

Background: Extrapolating (after: Fullam C), the ED of the University Hospital in Cracow, nurse staffing needs is covered at 90% without administration. Staff reports that the influx is a threat to those who are in serious condition, paying particular attention to patients appearing despite, not requiring an emergency service.

Methods: For routine triage the ESI was modified by the council of emergency medicine specialists. Wait time for acuity levels was recommended. Modifications in acuity levels were: pain and inaccurate danger zone vitals – level 3, many resources needed but accurate danger zone vitals – level 4, chronic disease (no exacerbation) or old injury (excluding head and chest) – level 5. Analyzing patients flow between January 12, 2015-March 31, 2016, caring participant observation authors measured: patients' number, assigned acuity level (1-5), deaths, final decision on further hospitalization and real wait time.

Results: A total number of patients was 15,077. Detailed results are shown in table 1.

Conclusion: Level 3 patients are the most vulnerable. Their wait time may exceed recommendations, while it should decrease. Since 1, 2 and 3 acuity level patients represent only 21% from the studied population, it is possible to shorten the 1.5 hour wait time. It shall be implemented, even by delaying level 4 – those who are not at risk of death. It is necessary to increase staffing, also to implement system solutions.