Reciprocal Abstracts March 2023

Editor’s note: The Hong Kong Journal of Emergency Medicine has partnered with a small group of selected journals of international emergency medicine societies to share from each a highlighted research study, as selected monthly by their editors. Our goals are to increase awareness of our readership to research developments in the international emergency medicine literature, promote collaboration among the selected international emergency medicine journals, and support the improvement of emergency medicine worldwide, as described in the WAME statement at http://www.wame.org/about/policy-statements#Promoting%20Global%20Health. Abstracts are reproduced as published in the respective participating journals and are not peer reviewed or edited by the Hong Kong Journal of Emergency Medicine.

African Journal of Emergency Medicine

The official journal of the African Federation for Emergency Medicine, the Emergency Medicine Association of Tanzania, the Emergency Medicine Society of South Africa, the Egyptian Society of Emergency Medicine, the Libyan Emergency Medicine Association, the Ethiopian Society of Emergency Medicine Professionals, the Sudanese Emergency Medicine Society, the Society of Emergency Medicine Practitioners of Nigeria, and the Rwanda Emergency Care Association.

(Red print version of this article has been scheduled for March 2023)

Road traffic accident clinical pattern and management outcomes at JUMC emergency department; Ethiopia

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Background: Road traffic accident is an incident on a way or street open to public traffic. It becomes one of the most significant public health problems in the world especially in developing countries. In Ethiopia, it represents a significant risk for morbidity and mortality. It is also the major public health problem even though studies done on this topic in the study area are limited.

Objective: To assess clinical pattern, associated factors, and management outcomes among road traffic accident victims attending emergency department of Jimma University Medical Center.

Methods: Hospital-based cross-sectional study design was employed to review chart of patients who visited the hospital from March to April 2021. A systematic random sampling technique was applied. The data were collected using pretested checklist and analyzed using SPSS version 26. Descriptive statistics and multivariate logistic regression were computed. Variables with \( p < 0.05 \) were considered statistically significant.

Results: About 49.6% were pedestrians injured, of which injury caused by motorcycle accounted for 42.9%. More than half of victims never got any type of prehospital care. On arrival, 38.7% were classified as Red of which 71.4% were managed surgically. About 84.9% of victims were discharged with improvement whereas 12.6% died. Victims with head injury (adjusted odds ratio (AOR) = 16.61; 95% confidence interval (CI), 3.85–71.71), time elapsed to reach nearby health facility (AOR = 3.30; 95% CI, 1.13–9.60), condition of patient at Emergency Department (AOR = 7.78; 95% CI, 2.33–6.06), GCS at admission (AOR = 20.12; 95% CI, 7.23–55.96), and days spent in hospital (AOR = 6.85; 95% CI, 5.81–8.06) were independent predictors of unfavorable outcome.

Conclusion: Road traffic accident represents a significant risk for morbidity and mortality in Ethiopia, of which head injury and multiple sites injury increase injury severity. Targeted approaches to improving care of the injured victims may improve outcomes. Thus, the clinician should take into consideration the clinical presentation and give due attention to the identified contributing factors in its management.
Assessment of substance use among injured persons seeking emergency care in Nairobi, Kenya
Lee JA, Ochola EO, Sugut J, Ngila B, Ojuka DK, Mello MJ and Aluisio AR

Introduction: Trauma is a leading cause of morbidity and mortality in Kenya. In many countries, substance use is common among patients presenting with injuries to an emergency center (EC).

Objective: To describe the epidemiology of self-reported substance use among adult injured patients seeking emergency department (ED) care in Nairobi, Kenya.

Methods: This prospective cross-sectional study assessed patients presenting with injuries to the Kenyatta National Hospital ED in Nairobi, Kenya, from March through June 2021. Data on substance use, injury characteristics, and ED disposition were collected. Substances of interest were alcohol, stimulants, marijuana, and opiates. The Alcohol Use Disorders Identification Test–Concise (AUDIT-C) tool was used to characterize hazardous alcohol use.

Results: A total of 1282 patients were screened for participation, of which 646 were enrolled. Among participants, 322 (49.8%) reported substance use in the past month (AUDIT-C positive, stimulants, opiates, and/or marijuana). Hazardous alcohol use was reported by 271 (42.0%) patients who were screened positive with AUDIT-C. Polysubstance use (≥2 substances) was reported by 87 participants in the past month. Median time from injury to ED arrival was 13.1 hours for all enrollees, and this number was significantly higher among substance users (median 15.4 hours, interquartile range (IQR) = 5.5–25.5; p = 0.029).

Conclusions: In the population studied, reported substance use was common with a substantial proportion of injured persons screening positive for hazardous alcohol use. Those with substance use had later presentations for injury care. These data suggest that ED programming for substance use disorder screening and care linkage could be impactful in the study setting.

Physical examination sensitivity for skull fracture in pediatric patients with blunt head trauma: a secondary analysis of the NEXUS II head CT validation study
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Study objective: We evaluated the emergency department providers’ ability to detect skull fractures in pediatric patients presenting with blunt head trauma.

Methods: This was a secondary analysis of the National Emergency X-Radiography Utilization Study (NEXUS) Head computed tomography (CT) validation study. Demographics and clinical characteristics were analyzed for pediatric patients. Radiologist interpretations of head CT imaging were abstracted and cataloged. Detection of skull fractures was evaluated through provider response to specific clinical decision instrument criteria (NEXUS or Canadian head CT rules) at the time of initial patient evaluation. The presence of skull fracture was determined by formal radiologist interpretation of CT imaging.

Results: Between April 2006 and December 2015, a total of 1018 pediatric patients were enrolled. One hundred twenty-eight (12.5%) children had a notable injury reported on CT head. Skull fracture was present in most (66.4%) children with intracranial injuries. The sensitivity and specificity of provider physical examination to detect skull fractures was 18.5% (95% confidence interval, 10.5%–28.7%) and 96.6% (95.3%–97.7%), respectively. The most common injuries associated with skull fractures were subarachnoid hemorrhage (27%) and subdural hematoma (22.3%).

Conclusion: Skull fracture is common in children with intracranial injury after blunt head trauma. Despite this, providers were found to have poor sensitivity for skull fractures in this population, and these injuries may be missed on initial emergency department assessment.

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Differences in clinical signs and severity of intoxication due to street drugs in adolescents and young adults treated in emergency departments
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Objective: To determine whether symptoms and levels of severity of intoxication from street drugs differ between adolescents and young adults who come to hospital emergency departments for treatment.

Methods: We studied a consecutive cohort of adolescents (aged 12–17 years) and young adults (aged 18–30 years) who were treated in 11 hospital emergency departments belonging to the Drug Abuse Network of Spanish Hospital Emergency Departments (REDURHE). Sociodemographic and clinical characteristics and level of severity were recorded for comparison between adolescents and young adults, adjusted for sex, alcohol co-ingestion, and type of drug used. An intoxication was recorded as severe if at least 1 of the following indicators was present: cardiac arrest, tracheal intubation, intensive care unit admission, and inhospital death.

Results: We included a total of 2181 patients: 249 adolescents (11.4%) and 1932 young adults (88.6%). Alcohol co-ingestion and use of multiple drugs were less common in adolescents, who had significantly more events related to cannabis (in 81.1% vs 49.0% of young adults) and benzodiazepines (13.3% vs 5.5%). The adolescents had significantly fewer intoxications from the use of cocaine (10.8% vs 45.1%), amphetamines (17.3% vs 32.3%), ketamine (0.4% vs 6.0%), and gamma-hydroxybutyrate (0.4% vs 4.0%). A higher proportion of adolescents and young adults presented with diminished consciousness (23.0% vs 16.9%), but fewer manifested anxiety (15.9% vs 26.3%), palpitations (11.0% vs 19.5%), or chest pain (2.8% vs 9.2%). The pattern of associations was similar in the subgroup of intoxications due to cannabis. The adjusted model confirmed that the adolescents were more likely to have diminished consciousness, with an odds ratio (OR) of 1.851 (95% confidence interval (CI), 1.204–2.844) and less likely to have anxiety (OR, 0.529; 95% CI, 0.347–0.807). Intoxication was severe in 46 patients overall (2.1%); in adolescents and young adults, the proportions were 0.8% and 2.3%, respectively (p=0.129). In adolescents, the OR was 0.568 (95% CI, 0.131–2.468) for severity; for component indicators, the ORs were 0.494 (95% CI, 0.063–3.892) for intubation and 0.780 (95% CI, 0.175–3.475) for intensive care unit admission. No deaths occurred.

Conclusion: Adolescents requiring emergency care for street drug intoxication had co-ingested alcohol or taken multiple drugs less often than young adults. Cannabis was the drug most often used by adolescents, who presented more often with diminished consciousness but less often with anxiety. We detected no differences related to event severity.

Keywords: Poisoning, street drugs, severity, adolescents, young adults, emergency department

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http://emergencias.portalsemes.org/descargar/caracteristicas-diferenciales-en-las-manifestaciones-clinicas-y-la-gravedad-de-las-intoxicaciones-por-drogas-de-abuso-en-adolescentes-atendidos-en-servicios-de-urgencias-en-comparacion-con-adultos-jvenes/
