

ABSTRACT

Introduction: Road traffic collisions (RTCs) are an important public health problem in low and middle-income countries (LMIC), where 90% of RTC deaths occur. The World Health Organization has suggested strategies to address excess mortality from RTCs including efforts to combat driving after using alcohol or drugs. Data on the impact of drug and alcohol use on RTCs is limited in many low-resource settings including Tanzania. We sought to examine the prevalence of drug and alcohol use in Tanzanian RTC drivers. **Methods:** This prospective, observational study was conducted in the emergency centre (EC) of Muhimbili National Hospital (MNH) in Dar es Salaam, Tanzania. We enrolled adult drivers presenting within 24 h of an RTC. We collected a saliva test of blood alcohol content (BAC) and a urine drug screen (UDS) and administered a validated substance use disorder screening tool, the Alcohol, Smoking and Substance Involvement Screening Test (ASSIST). Patients were excluded from individual analyses if they could not produce saliva or urine or answer questions. Primary outcomes were rates of positive BAC, UDS and self-reported risky alcohol and drug use patterns. **Results:** We screened 5264 trauma patients and enrolled 418, in whom 190 had a BAC, 364 had a UDS, and 410 had a complete ASSIST. 15 of 190 patients (7.9%) had a positive BAC, and 67/361 (18.7%) had a positive UDS for at least one drug. ASSIST scores showed 75/410 (18.3%) patients were at moderate or high risk for alcohol use disorder. Few were at risk for disordered use of other non-tobacco substances. **Discussion:** In our population of RTC drivers, positive BAC and UDS tests were rare but many patients were at risk for an alcohol use disorder. Ideal screening for substance use in Tanzanian trauma populations may involve a combination of objective testing and a verbal screening tool.

Keywords: Substance use disorders Trauma Injury prevention Trauma systems development