

0961 HANGOVERS AND TRAFFIC INJURIES: IS ALCOHOL'S INFLUENCE GREATER THAN EXPECTED?

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Elevation of blood alcohol concentration (BAC) is a well-recognised risk factor for MVCs but little is known regarding hangovers and crash risk. We analysed data from multiple sources to determine evidence that hangovers increase injury risk and developed a methodology to determine if hangovers represent a real injury hazard. Examination of trauma patients with negative BACs on admission found 12% met our criteria for current dependence and 24% for lifetime dependence, which is 4–5 times higher than the general population. Experimental hangover studies find significant impairment and reduced task performance after BACs return to zero. However no studies examine actual crash risk, in part because objective data to document hangovers is lacking. Studies of alcohol consumption biomarkers, ethyl glucuronide (EtG) and ethyl sulfate (EtS) suggest they can indicate recent heavy drinking even when blood alcohol is zero. We propose to quantify the role of hangovers in MVCs by assessing these new biomarkers in urine among drivers admitted to our trauma center and deaths from the medical examiner. Case-crossover analyses comparing self-reported drinking 12 h prior to injury with usual drinking patterns will provide one estimate of risk. Culpability studies determining the extent to which injured zero BAC drivers with biomarker evidence of hangover are responsible for causing their crash, compared with drivers without hangover biomarkers will be used as another estimate of risk. This study is an innovative use of biomarkers in injury research and may indicate that hangovers are an important but unrecognised risk factor in many injuries.