

LO035

The prevalence of alcohol-related trauma recidivism: a systematic review

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Introduction: Recurrent admission to a hospital or trauma centre for separate incidents of traumatic injury is known as trauma recidivism. Although use of alcohol is a known risk factor for injury and associated with trauma recidivism, the scale of alcohol-related trauma recidivism has not been well described. The purpose of this review was to search the published literature for studies that evaluated the prevalence of alcohol use among trauma recidivists. Our primary objective was to determine the proportion of trauma recidivism related to alcohol use. The association between alcohol and trauma recidivism was evaluated as a secondary objective. **Methods:** Four electronic databases (MEDLINE, Embase, CINAHL, Web of Science) were searched from inception until December 2015 for all articles that might provide evidence on the proportion of trauma recidivism related to use of alcohol. After removal of duplicates, the search strategy yielded 2470 records for screening. Only primary studies that reported on repeated admissions to a hospital or trauma center for traumatic injuries specifically related to alcohol use were included. Descriptive statistics were used to assess study characteristics and the prevalence of trauma recidivism related to alcohol use. An aggregate weighted estimate of alcohol-related trauma recidivism was calculated. **Results:** A total of 12 studies met all inclusion criteria. Studies were published between 1989 and 2014. Overall, there were 3386 trauma recidivists among included studies. The proportion of trauma recidivists with evidence of alcohol use on admission ranged from 26.7% to 76.9% (median 46.4%). The aggregated sample produced a weighted estimate of 41.0% (1388/3386) for alcohol-related trauma recidivism. In four studies, the association between alcohol and trauma recidivism was examined; all four found a positive association between alcohol use and repeated admission for traumatic injury. Studies varied considerably in design, trauma populations, periods for evaluating recidivism, definitions for positive alcohol on admission, and methods used to determine alcohol use. **Conclusion:** Evidence from current literature suggests that 41.0% of trauma recidivism is related to use of alcohol. Due to methodological limitations among the studies included for review, this may underestimate the actual prevalence of alcohol-related trauma recidivism.

Keywords: alcohol, trauma, recidivism

LO036

The influence of cognitive rest and graduated return to usual activities emergency department discharge instructions on symptoms of minor traumatic brain injury

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Introduction: It is estimated 15-50% of patients with a mild traumatic brain injury (MTBI) diagnosed in the emergency department (ED) will develop post-concussive syndrome (PCS). Although expert consensus recommends cognitive rest and graduated return to usual activities, these interventions are not based on prospective clinical evidence. The objective of this study was to determine if patients randomized to graduated return to usual activity discharge instructions had a decrease in their Post-Concussion Symptom Score (PCSS) 2 weeks after MTBI compared to patients who received usual care MTBI discharge

instructions. **Methods:** This was a pragmatic, randomized trial of adult (18-64 years) patients presenting to an academic ED (annual census 65,000) with chief complaint 'head injury' occurring within 24 hours of ED visit. Patients were contacted by text message or phone 2 weeks post ED discharge and again at 4 weeks and asked to complete a validated, 22 item questionnaire to determine if there was a change in their PCSS. Secondary outcomes included change in PCSS at 4 weeks, number follow-up physician visits, and time off work/school. **Results:** 118 patients were enrolled in the study (58 in the control group and 60 in the intervention). Mean (SD) age was 35.2 (13.7) years and 43 (36.4%) were male. There was no difference with respect to change in PCSS at 2 weeks (10.5 vs 12.8; Δ 2.3, 95% CI: 7.0, 11.7) and 4 weeks post-ED discharge (21.1 vs 18.3; Δ 2.8, 95% CI: 6.9, 12.7) for the intervention and control groups, respectively. The number follow-up physician visits and time off work/school was similar when the groups were compared. **Conclusion:** Results from this study suggest graduated return to usual activity discharge instructions do not impact rate of resolution of MTBI symptoms 2 weeks after ED discharge. Given patients continue to experience low to moderate symptoms 2 weeks after MTBI, more investigation is needed to determine how best to counsel and treat patients with post-concussive symptoms.

Keywords: head injury, concussion, discharge instructions

LO037

A randomized double-blind trial comparing the effect on pain of an oral sucrose solution versus placebo in children 1 to 3 months old needing urethral catheterization

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Introduction: Oral sweet solutions have been accepted as effective analgesics for procedures in the neonatal population. However, there have been a limited number of trials in older infants. These studies have conflicting results. The objective of the study was to compare the efficacy of an oral sucrose solution versus placebo in reducing pain during urethral catheterization in infants 1 to 3 months old in the Emergency Department (ED). **Methods:** A randomized, double-blind clinical trial was conducted in a pediatric university-affiliated hospital ED. Infants, 1 to 3 months of age, were recruited and randomly allocated to receive 2 ml of 88% sucrose solution (SUC) or 2 ml of placebo solution (PLA) orally, 2 minutes before planned urethral catheterization. The primary outcome measure was the difference in pain scores as assessed by the Face, Legs, Activity, Cry and Consolability (FLACC) Pain Scale at 1 min post procedure. Secondary outcome measures were the difference in pain scores using the Neonatal Infant Pain Scale (NIPS), crying time and variations in heart rate. **Results:** Seventy-six participants were recruited and completed the study, 37 (group SUC) and 39 (group PLA) respectively. The mean difference in FLACC scores compared to baseline was 5.62 ± 1.32 (SUC) vs. 6.21 ± 1.15 (PLA) ($p = .51$) during catheterization, 2.70 ± 1.21 (SUC) vs. 2.26 ± 1.41 (PLA) at 1 min ($p = .64$) and 0.66 ± 1.32 (SUC) vs. 1.26 ± 1.00 (PLA) at 3 mins ($p = .38$). For the NIPS scores, it was 4.27 ± 1.06 (SUC) vs. 4.69 ± 0.92 (PLA) ($p = .56$) during procedure, 2.05 ± 0.91 (SUC) vs. 1.97 ± 1.19 (PLA) ($p = .92$) at 1 min and 0.49 ± 0.89 (SUC) vs. 0.89 ± 0.97 (PLA) ($p = .54$) at 3 mins. The difference in the mean crying time was not different between both groups: 99 ± 34 secs (SUC) vs. 100 ± 25 (PLA) ($p = .99$). No significant difference was found in participants' heart rate variations during procedure 23 ± 8 BPM (SUC) vs. 26 ± 7 (PLA) ($p = .60$), after 1 min 19 ± 12 BPM (SUC) vs. 17 ± 7 (PLA) ($p = .76$) and after 3 mins -1 ± 12 BPM (SUC) vs. 3 ± 6 (PLA) ($p = .53$).