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**Title:** Improving identification and management of Alcohol-Related Brain Injury (ARBI) in acute care settings.

**Introduction**: Alcohol Related Brain Injury (ARBI) is a hidden harm in drinkers. The most commonly used clinical definition is given in DSM IV, however this has been shown to be vague and subjective with poor utility in acute care settings. Estimates of prevalence have been reported at 0.03% per 300,000 however, as no routine, standardised algorithm for assessment of ARBI exists; this is most likely an underestimate. A systematic review of brain injury confirmed neurodegenerative changes in heavy drinkers, but importantly also highlighted the potential for reversibility of these changes with sustained abstinence. Therefore, recognition of ARBI at the earliest opportunity has the potential to facilitate the implementation of comprehensive care pathways that optimise medical and psychosocial care, and prevent the cycle of readmissions for increasingly complex physical and psychological harms.

**Methods:** In April 2017 we implemented an innovative clinical pathway. Patients meeting risk criteria based on number of previous admissions or carers concerns had an automatic referral to a specialist nurse for assessment utilizing the Montreal Cognitive Assessment tool (MoCA©). A score of <23 was considered positive for potential ARBI. This triggered initiation of our ARBI care pathway and a referral to a psychiatrist for confirmation of diagnosis. We performed a 3 month follow-up descriptive evaluation.

**Results:** Over an period of 8 months (April to Nov 2017) 163 patients met criteria for screening; 118 males & 45 females, mean age = 52 years (SD=11); range 26-80 years. 60 scored ≤ 23 (36.8%) of which 35 (58.3%) had a confirmed diagnosis of ARBI from a psychiatrist. At 3 months 22 patients had received follow-up. Compared with baseline MoCA scores were significantly higher (improved); mean difference = 3.7 (95%CI: 1.2 to 6.3; P=0.07), mean hospital attendance was reduced from 3.2 to 1.9, and mean admissions were reduced from 1.8 to 1.1. Results from family reported outcome measures (FROMS) has highlighted several outcomes that our patient families found most valuable; a) receiving an assessment to confirm or reject the presence of ARBI, b) helping them understand their loved ones condition c) helping them plan for the future.

**Conclusions:** We have demonstrated potential benefits of this point-of-care screening which can facilitate the initiation of referral and treatment pathways which can improve patient outcomes. Our results are descriptive, but may contribute to the design of clinical trials that are needed to determine utility, acceptability and validity of our methods and the MoCA as a screening instrument in this setting.

**Conflict of Interest Statement:** The authors confirm no conflict of interest pecuniary or otherwise.