

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

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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 in the general population have been reported at 0.03% per 300,000 however¹, as no routine, standardised algorithm for assessment of ARBI exists, this is most likely an underestimate. A systematic review confirmed neurodegenerative changes in heavy drinkers, but importantly also highlighted the potential for reversibility of these changes with sustained abstinence². 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, aiding recovery, and preventing the cycle of readmissions for increasingly complex physical and psychological harms often observed in this patient group.

Methods

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

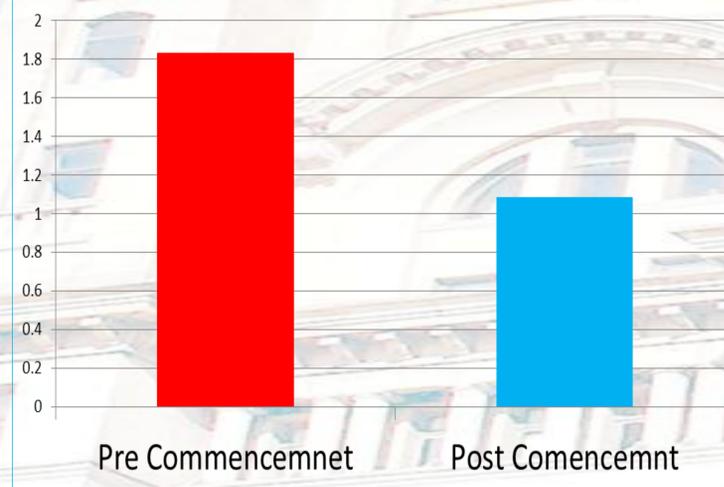
What relatives and carers say about the service

Listened-to
 Involved
 Helped
 Cared-about
 Safe
 Supported
 Team
 Understanding
 Improvement
 Compassionate
 Communication
 Cared-for

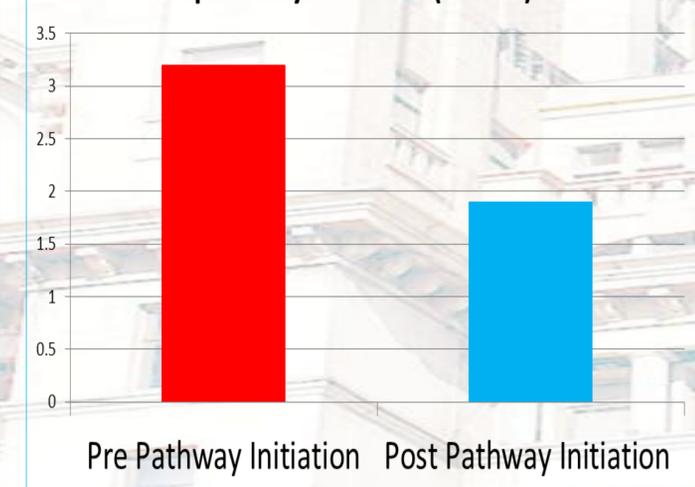
Results

Over 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 time of evaluation, 22 patients had received 3 month follow-up. Compared with baseline, MoCA scores were significantly higher (improved); mean difference = 3.7 (95%CI: 1.2 to 6.3; P=0.007). Three month pre and post mean hospital attendance was reduced from 3.2 (SD=4.6) to 1.9 (2.6), and mean admissions were reduced from 1.8 (1.7) to 1.1 (1.5). 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.

Average admissions 3 months pre and 3 months post ARBI pathway initiation (N= 163)



Average ED attendance pre and post ARBI pathway initiation (N=163)



Conclusion

We have demonstrated potential benefits of point-of-care ARBI screening, which can facilitate the initiation of referral and treatment pathways, leading to improved patient outcomes. The presented results, although descriptive, are encouraging, and the methods utilised require formal assessment through controlled trials to determine external clinical utility, acceptability and validity.