ALCOHOL RELATED BRAIN INJURY: AN UNDER-RECOGNISED CLINICAL DIAGNOSIS

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**Introduction:** Alcohol Related Brain Injury (ARBI) is a form of cognitive impairment that is potentially reversible with abstinence from alcohol [1]. Unfortunately, acute hospitals do not routinely assess cognitive function in patients with Alcohol Use Disorders (AUDs), and therefore most ARBI remains undetected. The deficiencies associated with ARBI may be a leading factor in treatment failure and negative outcomes, as patients may neither understand nor remember their care pathway. We have developed a clinical protocol to identify and subsequently screen those patients most at risk of ARBI. Here we present an update on our previous work [2], and provide 12 month outcomes for a subgroup of the population.

**Methods:** Patients’ categorised as ‘at risk of ARBI’ underwent cognitive assessment utilising the Montreal Cognitive Assessment (MoCA©) [3]. If the score was less than 26 they were considered to have a positive screen for potential ARBI. This resulted in referral to a psychiatrist for a comprehensive assessment. All patients undergoing MoCA assessment are being followed-up using routine clinical data.

**Results:** 94/ 139 (67 .6%) patients screened positive on MoCA. Fifty of these patients have 12 months follow-up data – data from this subgroup form the basis of this report. Thirty-one males (62%) and 19 females; mean age 53±11 years. Forty-two (84%) screened positive for potential ARBI (MoCA <26). At baseline 7 patients had been abstinent from alcohol for >1 month; of the 43 who were drinking: median daily consumption was 20 UK units (IQR = 14) median AUDIT score was 28 (IQR = 10), and median SADQ was 20 (IQR = 11). Eighteen (36 %) had a diagnosis of Alcoholic Liver Disease; the remaining 32 had no medical co-morbid condition other than alcohol dependence. Of the 42 patients with a diagnosis of ARBI, 8 (19%) had died; of which non e had evidence of alcoholic hepatitis and only one ha d cirrhosis, which was not decompensated.

**Conclusion:** The recognition of ARBI amongst health professionals and researchers is increasing, but clinical guidelines are lacking. Screening for cognitive impairment in patients at risk of ARBI is the first step in quantifying the problem and developing appropriate treatment plans that have the potential to prevent progression to more severe dementia and/or early mortality.

1. Bühler, M. and K. Mann, *Alcohol and the Human Brain: A Systematic Review of Different Neuroimaging Methods.* Alcoholism: Clinical and Experimental Research, 2011. **35**(10): p. 1771-1793.
2. Owens, L., et al., OC-060 *An observational prospective cohort audit to determine the presence of alcohol related brain injury (ARBI) in patients presenting to actue care*: Gut, 2016. **7**(1): p. A35.
3. Nasreddine, Z.S., et al., *The Montreal Cognitive Assessment, MoCA: a brief screening tool for mild cognitive impairment.* J Am Geriatr Soc, 2005. **53**(4): p. 695-9.