Abstract PWE-083 Table 1 Neuropsychometric/neurophysiological abnormalities in patients with various chronic diseases

Test Variables	Healthy (n=53)	Cirrhosis (n=52)	Renal (n=15)	Pulmonary (n=15)	Diabetes (n=15)
PHES					
Z-Score	0±1	−0.99±1.5 ***	−0.63±1.3	−1.34±1.2 ***	−0.88±0.9 *
EEG					
Theta P3P4 (Hz)	16.5 ±6.0	26.4±15.6 ***	16.3±6.5	19.4±8.7	13.2±4.1
Critical Flicker Fusion Test					
Flicker Frequency (Hz)	33.8 ±3.6	31.46±6.6	28.5±6.3 *	30.9±6.0	29.7±5.9
Inhibitory Control Test					
Correct Target Responses (%)	96.8 ±5.0	90.1±14.4	85.9±17.7 *	87.9±15.4	86.3±17.1 *
Scan Package					
Mean Reaction Time (ms)	1270 ±238	1481±327 **	1565±300 **	1629±346 ***	1560±315 **
Stroop Test					
On Time (s)	88.21 ±11.8	106.3±28.8 **	110.6 ±25.7 *	104.8±31.4	112.1 ±25.1 **

Significance of the difference between healthy controls and patients groups *p<0.05; **p<0.01; ***p<0.001

PWE-084 RELATIONSHIP BETWEEN INDICES OF FRAILTY/ DISABILITY WITH DISEASE SEVERITY AND NUTRITIONAL STATUS IN PATIENTS WITH CIRRHOSIS

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Introduction Disease severity and nutritional status are important determinants of outcome in patients with cirrhosis. Health-related quality of life, mental health, disability and frailty all affect outcome. However it is unclear if these measures of functional decline provide information additional to that provided by conventional outcome measures. This study aimed to determine whether indices of functional decline correlate with nutritional status and disease severity.

Methods Eighty-six consecutive patients (mean [range] age 54.6 [24–81] yr; 59 men; mean MELD 12.7 [6–37]) attending the hepatology service at the Royal Free Hospital, London were included. All underwent the following assessment in a single sitting: *disease severity*: MELD; *nutritional status*: The Royal Free Hospital-Nutritional Prioritising Tool (RFH-NPT); *quality of life*: Chronic Liver Disease Questionnaire (CLDQ) and Euro Quol-5 Dimension Tool (EQ-5D); *mental health*: Beck Anxiety/Depression Indices (BAI; BDI); *disability*: Activities (ADL) and Independent Activities of Daily Living (IADL); *frailty*: Clinical Frailty Scale (CFS), Short Physical Performance Battery (SPPB) and Fried Frailty Criteria (FFC) plus two composite measures, the Bristol Prognostic Index and Karnofsky Age MELD Model (KAM).

Results There was a significant degree of cross correlation between the tools used to assess functional decline (|R| between 0.05–0.58). There were significant correlations between indices of functional decline and nutritional status

with the exception of the disability indices (table 1). However, only the Bristol and KAM tools, which contain a measure of disease severity, correlated with MELD.

Conclusion In patients with cirrhosis indices of functional decline correlate with nutritional status but not with disease severity. These indices likely provide information of value in determining outcome not captured using conventional outcome measures. Information on their predicative validity would help determine their clinical utility.

Abstract PWE-084 Table 1 Functional decline, disease severity and nutritional status

Tool	MELD r (p value)	RFH-NPT
CLDQ	0.04 (0.74)	−0.33 (0.00)*
EQ-5D-5L	−0.07 (0.55)	−0.36 (0.00)*
BAI	0.03 (0.78)	0.31 (0.01)*
BDI	0.13 (0.26)	0.38 (0.00)*
ADL	−0.14 (0.22)	−0.15 (0.16)
IADL	−0.11 (0.30)	−0.19 (0.08)
CFS	0.07 (0.52)	0.41 (0.00)*
SPPB	−0.2 (0.09)	−0.38 (0.00)*
FFC	0.04 (0.7)	0.47 (0.00)*
Hand Grip	0.01 (0.96)	−0.21 (0.06)*
Bristol ^a	0.28 (0.01)*	0.32 (0.00)*
KAM ^a	0.34 (0.00)*	0.37 (0.00)*

*p<0.05

^aincludes disease severity.

PWE-085 IMMUNE CHECKPOINT INHIBITOR INDUCED ACUTE LIVER INJURY – A NATIONAL COHORT STUDY

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Background Immune checkpoint inhibitors (CPI) against lymphocyte antigen-4 (CTLA-4) and programmed cell death-1 (PD-1) are a novel therapeutic breakthrough in an increasing number of malignancies. CPI induced acute liver injury (ALI) is the second most frequently encountered organ toxicity occurring in up to 30% patients. There are no reported data on ALI disease pathogenesis, clinical evolution and outcome of patients treated with CPI therapy. Our multicentre cohort study evaluated clinico-pathological aspects of CPI-induced ALI.

Method A retrospective analysis was performed of patients with CPI induced ALI presenting to 6 UK oncology centres between 2013 and 2017. Indices of acute liver injury, treatment related complications and outcome were recorded. Severity scoring of liver injury was based on Common Terminology Criteria for Adverse Events (ALI grade 1–4).

Results 65% (36/57) patients received ipilimumab +pembrolizumab or nivolumab (combo group) and 35% (21/57) pembrolizumab or nivolumab alone (mono group). Median treatment duration to development of ALI was 96 days in the mono and 22 days in the combo group.

All patients presented with acute elevations in transaminases (ALT 325 [155–543], ALP 111 [72–250]). Immunoglobulins and autoantibodies were normal. One patient developed acute synthetic dysfunction with no encephalopathy (Bilirubin 64, INR 1.5). 79% received steroids (mean dose: 1.3 mg/kg); 34% MMF. Steroid refractory ALI was treated with anti-thymocyte globulin (ATG) in 4 patients.

Pathological findings (n=6 liver biopsies) revealed lobular hepatitis and myelo-lymphoid cell infiltrate/aggregates (CD3+, CD8+, CD68+). Patients with severe, refractory (grade 4) ALI had significant reductions in circulating lymphocytes/monocytes.

63% (n=35) had a temporal association between recent infection and ALI. 15% (n=8) had colitis prior to onset of ALI. Anti-TNF- α administration for colitis was not associated with more severe ALI. 21% (n=11) developed bacterial infections. Fungal sepsis (*aspergillus*) occurred in all ATG (n=4) treated patients.

Overall 14 patients died with 93% (n=13) due to disease progression and 7% (n=1) due to immunotherapy related neuropathy. All deaths due to progressive disease were in patients with grade 3–4 ALI. Actuarial median survival was significantly lower in grade 3–4 (14.5 months) vs grade 1–2 (25 months) liver injury.

Conclusion Our data report on the largest cohort of CPI induced ALI identifying disease evolution, markers of disease severity and strong correlation with increased morbidity and mortality. Further research is required to delineate triggers and pathogenesis of CPI induced ALI in order to develop calibrated therapies to ameliorate liver injury.

PWE-086 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 have been reported at 0.03% per 3 000 000 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 utilising 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 and 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.

PWE-087 A REVIEW OF PRESCRIBING FOR PRIMARY ANTIBIOTIC PROPHYLAXIS IN SPONTANEOUS BACTERIAL PERITONITIS

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Introduction The use of antibiotics as primary prophylaxis for spontaneous bacterial peritonitis in decompensated liver failure is an area of uncertainty and conflicting opinion. Concerns regarding increasing anti-microbial resistance (AMR) alongside lack of evidence for antibiotic choice are cited as reasons for this.¹ Spontaneous bacterial peritonitis (SBP) is the most common serious infection in cirrhosis with significant mortality.² While antibiotic prophylaxis to prevent further infection is established following a prior episode of SBP, there remains considerable uncertainty over primary prophylaxis for SBP.^{1 3} This is important as 90% of SBP cases present in those with no previous episode.⁴

Methods We conducted a national survey of primary prophylaxis for SBP through the British Society of Gastroenterology trial development group with responses from 23 centres. We requested information on the centres' current guidelines and criteria for prescription.

Results Nine centres reported that they routinely used antibiotics as primary prophylaxis for SBP, seven did not routinely prescribe and seven responded that they intermittently prescribe prophylaxis on a case-by-case or clinician dependent basis. The antibiotics prescribed were ciprofloxacin (60%), norfloxacin (20%) or cotrimoxazole (20%). Two hospitals used rifaximin as combined prophylaxis against hepatic encephalopathy (HE) and SBP. The majority (eight) of the centres with trust guidelines for prescription included patients with ascitic fluid protein <1.5 g/dl or Childs score B or C.

Conclusions Responses demonstrated a wide variation in clinical practice between both centres and clinicians. Respondents indicated that due to lack of clear evidence, prescription was