a scale from 3 to 21 using the Brief Illness Perception Questionnaire. Deprivation based on postcode area was expressed as percentile ranks. For each one point increase in Anxiety, Depression and Emotional Illness Perception scores the likelihood of Poor Acceptance increased by 22%, 21% and 27% respectively. Greater deprivation increased the likelihood of Poor Acceptance by 2% per percentile rank.

Conclusion Predictors of Poor Acceptance may be grouped into Mood and Deprivation. Education through self-management programmes may tackle some of the problems caused by deprivation. To optimise treatment success in IBD, we would advocate further research into a mood-orientated approach using screening tools, coupled with clinical judgement and targeted psychological interventions such as Acceptance and Commitment Therapy (ACT), which is based upon Acceptance and Adjustment Theory.

Disclosure of Interest None Declared.

PWE-111 ASSESSMENT AND IMPLICATIONS OF HEALTH-RELATED QUALITY OF LIFE IN A DISTRICT GENERAL COHORT OF INFLAMMATORY BOWEL DISEASE PATIENTS

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Introduction Health-Related Quality of Life (HRQOL) has been shown to have far-reaching implications for patient self-management, treatment efficiency and engagement with their own illness.

Objectives To assess the levels of HRQOL experienced by inflammatory bowel disease (IBD) patients within the district general setting.

Methods 2400 patients with IBD in the Luton & Dunstable catchment were invited to participate in a web-based quality of life assessment, with the option to request a paper copy. All patients were deemed eligible provided they were between 18 and 90 years of age, with no major learning difficulties or pre-existing serious mental disorders. HRQOL was measured using the 10-item "short Inflammatory Bowel Disease Questionnaire" (sIBDQ; Irvine *et al* 1996). The sIBDQ is divided into four subscales: Systemic, Emotion, Social and Bowel. Possible scores for the sIBDQ ranged from 7 to 70, with lower scores indicating poorer quality of life.

Results 245 patients completed the assessment (43% male; mean age = 53, SD = 17). 45% had Ulcerative Colitis, 45% had Crohn's Disease and 10% had an alternative form of IBD (eg. Proctitis, Lymphocytic Colitis or Collagenous Colitis). The HRQOL of patients in this study was low, and similar to that reported by Irvine *et al* The mean score of the sample was 48 (CI = 46.6 – 49.4).

There are no published validated cut-off values for the sIBDQ indicating a "normal" QoL. Using Huaman *et al*'s (2010) estimated value for the IBDQ-36 (209 in the range 36–252) we assumed a cut-off of 56 in the range 7–70 to estimate a cut-off for the sIBDQ. This would mean that approximately 70% of the sample had an 'abnormally' low Quality of Life. For comparison, subscale scores were divided by the number of items they contained. Mean subscale scores were: Systemic – 4.3 (CI = 4.1–4.5); Emotion – 4.8 (CI = 4.7–4.9); Social - 5.4 (CI = 5.2–5.6); Bowel – 4.8 (CI = 4.6–5.0). A 'tail-off' effect was also noted, representing a small group of patients who reported having a significantly reduced health-related quality of life.

Conclusion This study found that Social aspects of Quality of Life were less severely affected by IBD than Emotional or Bowel-related aspects, allowing patients to maintain a relatively high level of social activity. The medical (or Bowel) aspects of the condition were perceived to have the greatest negative impact on HRQOL. However, to make significant improvements in the patients' total QOL one has to focus on improving their emotional engagement with the condition and their overall perception of the IBD and the symptoms they suffer.

Disclosure of Interest None Declared.

Liver

PWE-112 MATERNAL OBESITY PROMOTES OFFSPRING NON-ALCOHOLIC FATTY LIVER DISEASE (NAFLD) THROUGH DISRUPTION OF ENDOPLASMIC RETICULUM HOMEOSTASIS

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Introduction We have previously shown that maternal obesity (MO) programmes offspring obesity and consequent liver disease (non-alcoholic fatty liver disease, NAFLD) but involved mechanisms are unclear. Accumulating evidence suggests endoplasmic reticulum (ER) stress induced unfolded protein response (UPR) plays a central role in the pathogenesis of steatosis and subsequent non-alcoholic steatohepatitis (NASH). However, little is known about the role of UPR in developmentally programmed NAFLD.

Methods C57BL6 mice were fed standard or obesogenic diet (OD) for 6 weeks prior to pregnancy and throughout pregnancy and lactation. Litters were weaned onto standard or OD to produce 4 groups. Animals were sacrificed at 6 months. Blood and tissue samples were collected to assess the liver phenotype and expression analysis of UPR related proteins and genes.

Results Offspring exposed to MO and a post-weaning OD (OffOb-OD) developed profound NAFLD compared to those exposed to post-partum (OffCon-OD) or the control group (OffCon-SC), as assessed by raised ALT ($p < 0.001$) and NAFLD Activity Score ($p < 0.01$). Among 3 proximal sensors of ER stress, PERK protein expression and phospho eIF-2alpha were specifically increased in OffOb-OD ($p < 0.05$). ATF6 cleavage and spliced form of XBP-1 were observed in all groups except for OffCon-SC. Phopho SAPK/JNK, CHOP, and LC3BII protein expression were significantly increased in OffOb-OD. Furthermore, hepatocytes apoptosis as detected by TUNEL and active capase-3 staining in OffOb-OD. These results indicate that unresolved UPR is significantly activated in OffCon-OD. However, GRP78, a major ER chaperone and central regulator for ER stress, was significantly downregulated in OffOb-OD. UPR induced chaperon (GRP94) and ER-associated protein degradation related gene (HERP and EDEM) were downregulated in OffCon-OB and OffOb-OD. Furthermore rhythmic expression of GRP78 and HERP were blunted in OffOb-OD.

Conclusion MO and a post-natal obesogenic diet profoundly disrupted ER homeostasis in offspring. Disrupted ER homeostasis may be involved in the propagation of NAFLD.

Disclosure of Interest None Declared.

PWE-113 LOW RISK FOR HEPATOCELLULAR CANCER (HCC) IN HEPATITIS B VIRUS (HBV) INFECTED ASIAN MIGRANTS: IMPLICATIONS FOR CANCER SURVEILLANCE

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Introduction The global incidence of HCC is rising and it is the third most common cause of cancer-related death worldwide. Surveillance of at risk patients has been recommended by expert guidelines to detect early cancers that are amenable to curative treatments. AASLD has recommended HCC surveillance for non-cirrhotic HBV-positive Asian males over 40 and females over 50yrs of age. However, the evidence to support this recommendation is limited and is derived from studies conducted in Asia. Results from such studies may not be applicable in the West, due to differences in environmental risk factors and availability of HBV treatment. Implementation of such a recommendation would place a burden on healthcare resources, and may not be justified if the risk for HCC is substantially lower than previous estimates in this population.
Methods A retrospective study was carried out of all Asian patients undergoing follow up for HBV infection from 1990 to 2012. Patients were classified as cirrhotic or non-cirrhotic according to clinical, biochemical, radiological and histological results. Follow-up was until September 2012, and was censored at time of death, development of cirrhosis or loss to follow-up.
Results Among 316 identified Asian patients with HBV, 73 non-cirrhotic patients fulfilled the proposed AASLD surveillance criteria, either at time of initial referral or during the period of follow-up. The median at-risk follow up period (as defined by AASLD guidelines for non-cirrhotic Asians) was 57 months (range: 0–354 months). HCC was diagnosed in one non-cirrhotic patient after 77 months of follow up (male, 60yrs), two patients became cirrhotic after 49 and 89 months (male, age 46 and 55yrs) and no deaths occurred. The overall incidence of HCC in the non-cirrhotic cohort meeting the AASLD surveillance criteria was 1 per 429.5 patient-years of follow-up (0.23% per patient-year).
Conclusion The incidence of HCC in Asian patients with non-cirrhotic HBV is low in our cohort. This low incidence challenges the rationale for surveillance in this group of patients. More studies are needed to assess the benefit of such approach.
Disclosure of Interest None Declared.

PWE-114 FACTORS AFFECTING THE RISK OF RELAPSE TO DRINKING ALCOHOL FOLLOWING LISTING FOR TRANSPLANTATION FOR ALCOHOL-RELATED LIVER DISEASE

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Introduction Alcohol-related liver disease (ALD) is one of the commonest indications for liver transplantation, but relapse to drinking alcohol in this group of patients is a significant concern. Clarification of risk factors that can predict relapse is needed in the UK, so that additional support can be provided for those at increased risk.
Methods Patients being considered for liver transplantation as a result of ALD in Leeds undergo thorough assessment by an alcohol professional. Particular emphasis is placed on the risk of recidivism to drinking, using 2 scoring systems. One of these, the High-risk Alcohol Relapse (HRAR) Score, focuses on prior alcohol consumption history, whereas the Relative Risk Factors for Relapse (RRFR) Score addresses psychosocial dysfunction. However, neither of these scoring systems is used to determine suitability for transplantation.

Scores were evaluated in those known to have returned to drinking alcohol after listing for transplantation, either by self-report or by random blood alcohol testing. These scores were compared to listed patients considered to be abstinent. We also assessed whether duration of self-reported abstinence or family history of alcoholism were greater in those who relapsed.
Results Between September 2008 and August 2010, 58 people with ALD were listed for liver transplantation. Of these, 12 are known to have returned to drinking alcohol, either whilst listed or post-transplant.

There was no significant difference in the relapsers compared to the non-relapsers according to gender (0.67% vs 0.73% were males, P = 0.45) or age (median 50 vs 54 years, P = 0.09).

The median RRFR scores were significantly higher in the relapsers compared to the non-relapsers (14.5/27 vs 12/27; P = 0.01). The median HRAR scores were identical in the 2 groups (median scores 2/6; P = 0.28).

There was no significant difference in duration of self-reported abstinence between relapsers and non-relapsers (13 vs 10 months; P = 0.26). There was also no difference in family history (where known) of alcoholism between the 2 groups (1/10 vs 8/39; P = 0.4).
Conclusion Psychosocial dysfunction is significantly greater in patients with ALD who relapse to drinking alcohol following listing for transplantation. Psychological support may therefore reduce the risk of relapse in these patients. The predictive utility of the HRAR score was poor in this cohort of patients.
Disclosure of Interest None Declared.

PWE-115 ALPHA-FETOPROTEIN MEASUREMENT IN THE DIAGNOSIS OF HEPATOCELLULAR CARCINOMA IN REAL-LIFE PRACTICE: A MULTI-CENTRE, RETROSPECTIVE ANALYSIS

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Introduction In hepatocellular carcinoma (HCC), earlier diagnosisimproves outcome but the optimum method of surveillance in high-risk groups is controversial. Recent AASLD and EASL guidelines[1.2] have recommended six- monthly ultrasound surveillance (USS) alone. British guidelines[3] currently recommend combining serial alpha-fetoprotein (aFP) measurements with six-monthly USS. This study aimed to assess the role of aFP measurement in HCC surveillance programmes.
Methods This large retrospective multicentre study assessed newly diagnosed HCC over a 5-year period (2006–2011) at three centres: two general hospitals and one tertiary referral centre. Electronic and multi-disciplinary team data were reviewed.
Results 111 patients with a confirmed diagnosis of HCC were identified. Of these, 91(81.9%) were male and the median age was 69 years (range 24–87). 52(46.8%) patients with newly diagnosed HCC had established liver disease prior to diagnosis. Of these, 21(40.4%) were participating in combined USS-aFP surveillance, 2(3.8%) USS alone and 1(1.9%) aFP alone. A diagnosis of HCC was confirmed by liver biopsy in 43(38.7%), CT in 41(36.9%), MRI in 25(22.5%) and USS combined with elevated aFP in 2(1.8%).

At diagnosis, aFP was elevated in 81(73.0%), normal in 22(19.8%) and unmeasured in 8(7.2%) patients. Of those 21 diagnosed in an established surveillance programme of six- monthly USS and aFP, 17(81.0%) showed a rise in aFP. When assessing the trigger for confirmatory cross-sectional imaging ± biopsy across all data, a solely elevated aFP prompted further investigation in 11(9.9%); in those under surveillance, this number was 7(29.2%) with no abnormality detected on USS within the preceding three-month period in 6(85.7%) of these.
Conclusion These results demonstrate that a significant number of patients would have had a delayed diagnosis of HCC if aFP measurement was removed from UK screening programmes. Potential contributing factors limiting the success of USS- based screening programmes include: small lesion size, sonographer error, patient factors limiting USS accuracy (e.g. body habitus) and irregular attendance for USS. This study supports continued